

Laboratory Report of Analysis

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

Report Number: **1176871**

Client Project: **Wasilla WWTP Surface**

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: **1176871**

Project Name/Site: **Wasilla WWTP Surface**

Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

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

Print Date: 10/02/2017 3:34:56PM

Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, 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) for which SGS North America Inc. is Provisionally Certified as of 9/21/2017 & UST-005 (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	Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

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

Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SW-1	1176871001	09/26/2017	09/26/2017	Water (Surface, Eff., Ground)
SW-2	1176871002	09/26/2017	09/26/2017	Water (Surface, Eff., Ground)
SW-3	1176871003	09/26/2017	09/26/2017	Water (Surface, Eff., Ground)
SW-4	1176871004	09/26/2017	09/26/2017	Water (Surface, Eff., Ground)
Duplicate 1	1176871005	09/26/2017	09/26/2017	Water (Surface, Eff., Ground)
SW-5	1176871006	09/26/2017	09/26/2017	Water (Surface, Eff., Ground)
SW-6	1176871007	09/26/2017	09/26/2017	Water (Surface, Eff., Ground)
SW-7	1176871008	09/26/2017	09/26/2017	Water (Surface, Eff., Ground)
SW-8	1176871009	09/26/2017	09/26/2017	Water (Surface, Eff., Ground)
SW-9	1176871010	09/26/2017	09/26/2017	Water (Surface, Eff., Ground)
SW-10	1176871011	09/26/2017	09/26/2017	Water (Surface, Eff., Ground)
SW-11	1176871012	09/26/2017	09/26/2017	Water (Surface, Eff., Ground)

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

Print Date: 10/02/2017 3:34:59PM

Detectable Results Summary

Client Sample ID: **SW-1**

Lab Sample ID: 1176871001

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	7.83	mg/L
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.849J	mg/L
Total Phosphorus	0.223	mg/L
Total Suspended Solids	51.0	mg/L

Client Sample ID: **SW-2**

Lab Sample ID: 1176871002

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	9.87	mg/L
E. Coli	1	MPN/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	1.06	mg/L
Total Phosphorus	0.254	mg/L
Total Suspended Solids	281	mg/L

Client Sample ID: **SW-3**

Lab Sample ID: 1176871003

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.74	mg/L
E. Coli	3	MPN/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.551J	mg/L
Total Phosphorus	0.249	mg/L
Total Suspended Solids	188	mg/L

Client Sample ID: **SW-4**

Lab Sample ID: 1176871004

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.21	mg/L
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.413J	mg/L
Total Phosphorus	0.116J	mg/L
Total Suspended Solids	22.0	mg/L

Client Sample ID: **Duplicate 1**

Lab Sample ID: 1176871005

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.04	mg/L
Total Coliform	548	MPN/100mL
Total Phosphorus	0.113J	mg/L
Total Suspended Solids	17.0	mg/L

Client Sample ID: **SW-5**

Lab Sample ID: 1176871006

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	5.79	mg/L
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.666J	mg/L
Total Phosphorus	0.0940J	mg/L
Total Suspended Solids	35.0	mg/L

Detectable Results Summary

Client Sample ID: **SW-6**

Lab Sample ID: 1176871007

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.36	mg/L
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.610J	mg/L
Total Phosphorus	0.204	mg/L
Total Suspended Solids	82.0	mg/L

Client Sample ID: **SW-7**

Lab Sample ID: 1176871008

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.15	mg/L
E. Coli	3	MPN/100mL
Fecal Coliform	3.0	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.660J	mg/L
Total Phosphorus	0.199J	mg/L
Total Suspended Solids	99.0	mg/L

Client Sample ID: **SW-8**

Lab Sample ID: 1176871009

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	8.19	mg/L
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.482J	mg/L
Total Phosphorus	0.151J	mg/L
Total Suspended Solids	183	mg/L

Client Sample ID: **SW-9**

Lab Sample ID: 1176871010

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	4.89	mg/L
Fecal Coliform	1.0	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.416J	mg/L
Total Phosphorus	0.198J	mg/L
Total Suspended Solids	48.0	mg/L

Client Sample ID: **SW-10**

Lab Sample ID: 1176871011

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	3.10	mg/L
E. Coli	8	MPN/100mL
Fecal Coliform	14	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.390J	mg/L
Total Phosphorus	0.296	mg/L
Total Suspended Solids	54.0	mg/L

Detectable Results Summary

Client Sample ID: **SW-11**

Lab Sample ID: 1176871012

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	4.09	mg/L
Total Coliform	GT2420	MPN/100mL
Total Phosphorus	0.147J	mg/L
Total Suspended Solids	209	mg/L

Print Date: 10/02/2017 3:35:01PM



Results of SW-1

Client Sample ID: **SW-1**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871001
Lab Project ID: 1176871

Collection Date: 09/26/17 09:33
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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	7.83	2.00	2.00	mg/L	1		09/27/17 17:41

Batch Information

Analytical Batch: BOD5865
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/27/17 17:41
Container ID: 1176871001-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		09/26/17 17:32

Batch Information

Analytical Batch: BTF16008
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/26/17 17:32
Container ID: 1176871001-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		09/26/17 21:50
Total Coliform	>2420	1	1	MPN/100r	1		09/26/17 21:50

Batch Information

Analytical Batch: BTF16010
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 09/26/17 21:50
Container ID: 1176871001-D



Results of SW-1

Client Sample ID: SW-1
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176871001
Lab Project ID: 1176871

Collection Date: 09/26/17 09:33
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Suspended Solids, 51.0, 10.0, 3.10, mg/L, 1, 09/26/17 18:47

Batch Information

Analytical Batch: STS5666
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/26/17 18:47
Container ID: 1176871001-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Kjeldahl Nitrogen, 0.849 J, 1.00, 0.310, mg/L, 1, 09/28/17 17:06

Batch Information

Analytical Batch: WDA4075
Analytical Method: SM21 4500-N D
Analyst: AYC
Analytical Date/Time: 09/28/17 17:06
Container ID: 1176871001-C
Prep Batch: WXX12028
Prep Method: METHOD
Prep Date/Time: 09/27/17 21:00
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. Rows: Nitrate-N, Nitrite-N

Batch Information

Analytical Batch: WF12600
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/26/17 21:25
Container ID: 1176871001-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Phosphorus, 0.223, 0.200, 0.0620, mg/L, 1, 09/27/17 21:06

Results of SW-1

Client Sample ID: **SW-1**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871001
Lab Project ID: 1176871

Collection Date: 09/26/17 09:33
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4074
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 09/27/17 21:06
Container ID: 1176871001-C

Prep Batch: WXX12027
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/27/17 18:10
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of SW-2

Client Sample ID: **SW-2**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871002
Lab Project ID: 1176871

Collection Date: 09/26/17 10:00
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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	9.87	2.00	2.00	mg/L	1		09/27/17 17:41

Batch Information

Analytical Batch: BOD5865
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/27/17 17:41
Container ID: 1176871002-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		09/26/17 17:57

Batch Information

Analytical Batch: BTF16008
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/26/17 17:57
Container ID: 1176871002-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		09/26/17 21:50
Total Coliform	>2420	1	1	MPN/100r	1		09/26/17 21:50

Batch Information

Analytical Batch: BTF16010
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 09/26/17 21:50
Container ID: 1176871002-D



Results of **SW-2**

Client Sample ID: **SW-2**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871002
Lab Project ID: 1176871

Collection Date: 09/26/17 10:00
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	281	10.0	3.10	mg/L	1		09/26/17 18:47

Batch Information

Analytical Batch: STS5666
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/26/17 18:47
Container ID: 1176871002-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	1.06	1.00	0.310	mg/L	1		09/28/17 17:08

Batch Information

Analytical Batch: WDA4075	Prep Batch: WXX12028
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 09/27/17 21:00
Analytical Date/Time: 09/28/17 17:08	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176871002-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:27
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:27

Batch Information

Analytical Batch: WF12600
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/26/17 21:27
Container ID: 1176871002-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 Phosphorus	0.254	0.200	0.0620	mg/L	1		09/27/17 21:07

Results of SW-2

Client Sample ID: **SW-2**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871002
Lab Project ID: 1176871

Collection Date: 09/26/17 10:00
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4074
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 09/27/17 21:07
Container ID: 1176871002-C

Prep Batch: WXX12027
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/27/17 18:10
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of SW-3

Client Sample ID: **SW-3**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871003
Lab Project ID: 1176871

Collection Date: 09/26/17 10:47
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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	3.74	2.00	2.00	mg/L	1		09/27/17 17:41

Batch Information

Analytical Batch: BOD5865
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/27/17 17:41
Container ID: 1176871003-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		09/26/17 17:57

Batch Information

Analytical Batch: BTF16008
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/26/17 17:57
Container ID: 1176871003-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		09/26/17 21:50
Total Coliform	>2420	1	1	MPN/100r	1		09/26/17 21:50

Batch Information

Analytical Batch: BTF16010
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 09/26/17 21:50
Container ID: 1176871003-D



Results of **SW-3**

Client Sample ID: **SW-3**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871003
Lab Project ID: 1176871

Collection Date: 09/26/17 10:47
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	188	10.0	3.10	mg/L	1		09/26/17 18:47

Batch Information

Analytical Batch: STS5666
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/26/17 18:47
Container ID: 1176871003-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	0.551 J	1.00	0.310	mg/L	1		09/28/17 17:09

Batch Information

Analytical Batch: WDA4075	Prep Batch: WXX12028
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 09/27/17 21:00
Analytical Date/Time: 09/28/17 17:09	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176871003-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:29
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:29

Batch Information

Analytical Batch: WF12600
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/26/17 21:29
Container ID: 1176871003-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 Phosphorus	0.249	0.200	0.0620	mg/L	1		09/27/17 21:08

Results of SW-3

Client Sample ID: **SW-3**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871003
Lab Project ID: 1176871

Collection Date: 09/26/17 10:47
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4074
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 09/27/17 21:08
Container ID: 1176871003-C

Prep Batch: WXX12027
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/27/17 18:10
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of SW-4

Client Sample ID: **SW-4**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871004
Lab Project ID: 1176871

Collection Date: 09/26/17 12:05
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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	3.21	2.00	2.00	mg/L	1		09/27/17 17:41

Batch Information

Analytical Batch: BOD5865
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/27/17 17:41
Container ID: 1176871004-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		09/26/17 18:54

Batch Information

Analytical Batch: BTF16008
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/26/17 18:54
Container ID: 1176871004-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		09/26/17 21:50
Total Coliform	>2420	1	1	MPN/100r	1		09/26/17 21:50

Batch Information

Analytical Batch: BTF16010
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 09/26/17 21:50
Container ID: 1176871004-D



Results of SW-4

Client Sample ID: SW-4
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176871004
Lab Project ID: 1176871

Collection Date: 09/26/17 12:05
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Suspended Solids, 22.0, 10.0, 3.10, mg/L, 1, 09/26/17 18:47

Batch Information

Analytical Batch: STS5666
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/26/17 18:47
Container ID: 1176871004-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Kjeldahl Nitrogen, 0.413 J, 1.00, 0.310, mg/L, 1, 09/28/17 17:13

Batch Information

Analytical Batch: WDA4075
Analytical Method: SM21 4500-N D
Analyst: AYC
Analytical Date/Time: 09/28/17 17:13
Container ID: 1176871004-E
Prep Batch: WXX12028
Prep Method: METHOD
Prep Date/Time: 09/27/17 21:00
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. Rows: Nitrate-N (0.0500 U), Nitrite-N (0.0500 U)

Batch Information

Analytical Batch: WF12600
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/26/17 21:30
Container ID: 1176871004-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Phosphorus, 0.116 J, 0.200, 0.0620, mg/L, 1, 09/27/17 21:10

Results of SW-4

Client Sample ID: **SW-4**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871004
Lab Project ID: 1176871

Collection Date: 09/26/17 12:05
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4074
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 09/27/17 21:10
Container ID: 1176871004-C

Prep Batch: WXX12027
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/27/17 18:10
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of Duplicate 1

Client Sample ID: **Duplicate 1**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871005
Lab Project ID: 1176871

Collection Date: 09/26/17 12:05
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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	3.04	2.00	2.00	mg/L	1		09/27/17 17:41

Batch Information

Analytical Batch: BOD5865
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/27/17 17:41
Container ID: 1176871005-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		09/26/17 18:54

Batch Information

Analytical Batch: BTF16008
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/26/17 18:54
Container ID: 1176871005-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		09/26/17 21:50
Total Coliform	548	1	1	MPN/100r	1		09/26/17 21:50

Batch Information

Analytical Batch: BTF16010
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 09/26/17 21:50
Container ID: 1176871005-D



Results of Duplicate 1

Client Sample ID: **Duplicate 1**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871005
Lab Project ID: 1176871

Collection Date: 09/26/17 12:05
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	17.0	10.0	3.10	mg/L	1		09/26/17 18:47

Batch Information

Analytical Batch: STS5666
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/26/17 18:47
Container ID: 1176871005-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.500 U	1.00	0.310	mg/L	1		09/28/17 17:14

Batch Information

Analytical Batch: WDA4075	Prep Batch: WXX12028
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 09/27/17 21:00
Analytical Date/Time: 09/28/17 17:14	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176871005-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:43
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:43

Batch Information

Analytical Batch: WF12600
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/26/17 21:43
Container ID: 1176871005-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 Phosphorus	0.113 J	0.200	0.0620	mg/L	1		09/27/17 21:11

Print Date: 10/02/2017 3:35:02PM

J flagging is activated

Results of Duplicate 1

Client Sample ID: **Duplicate 1**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871005
Lab Project ID: 1176871

Collection Date: 09/26/17 12:05
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4074
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 09/27/17 21:11
Container ID: 1176871005-C

Prep Batch: WXX12027
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/27/17 18:10
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of SW-5

Client Sample ID: **SW-5**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871006
Lab Project ID: 1176871

Collection Date: 09/26/17 11:41
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	5.79	2.00	2.00	mg/L	1		09/27/17 17:41

Batch Information

Analytical Batch: BOD5865
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/27/17 17:41
Container ID: 1176871006-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		09/26/17 18:54

Batch Information

Analytical Batch: BTF16008
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/26/17 18:54
Container ID: 1176871006-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		09/26/17 21:50
Total Coliform	>2420	1	1	MPN/100r	1		09/26/17 21:50

Batch Information

Analytical Batch: BTF16010
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 09/26/17 21:50
Container ID: 1176871006-D



Results of SW-5

Client Sample ID: SW-5
Client Project ID: Wasilla WWTP Surface
Lab Sample ID: 1176871006
Lab Project ID: 1176871

Collection Date: 09/26/17 11:41
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Suspended Solids, 35.0, 10.0, 3.10, mg/L, 1, 09/26/17 18:47

Batch Information

Analytical Batch: STS5666
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/26/17 18:47
Container ID: 1176871006-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Kjeldahl Nitrogen, 0.666 J, 1.00, 0.310, mg/L, 1, 09/28/17 17:16

Batch Information

Analytical Batch: WDA4075
Analytical Method: SM21 4500-N D
Analyst: AYC
Analytical Date/Time: 09/28/17 17:16
Container ID: 1176871006-C
Prep Batch: WXX12028
Prep Method: METHOD
Prep Date/Time: 09/27/17 21:00
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. Rows: Nitrate-N, Nitrite-N

Batch Information

Analytical Batch: WF12600
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/26/17 21:44
Container ID: 1176871006-E

Table with 8 columns: Parameter, Result Qual, LOQ/CL, DL, Units, DF, Allowable Limits, Date Analyzed. Row 1: Total Phosphorus, 0.0940 J, 0.200, 0.0620, mg/L, 1, 09/27/17 21:12

Results of SW-5

Client Sample ID: **SW-5**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871006
Lab Project ID: 1176871

Collection Date: 09/26/17 11:41
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4074
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 09/27/17 21:12
Container ID: 1176871006-C

Prep Batch: WXX12027
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/27/17 18:10
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of SW-6

Client Sample ID: **SW-6**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871007
Lab Project ID: 1176871

Collection Date: 09/26/17 12:24
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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	3.36	2.00	2.00	mg/L	1		09/27/17 17:41

Batch Information

Analytical Batch: BOD5865
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/27/17 17:41
Container ID: 1176871007-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		09/26/17 18:54

Batch Information

Analytical Batch: BTF16008
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/26/17 18:54
Container ID: 1176871007-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		09/26/17 21:50
Total Coliform	>2420	1	1	MPN/100r	1		09/26/17 21:50

Batch Information

Analytical Batch: BTF16010
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 09/26/17 21:50
Container ID: 1176871007-D



Results of SW-6

Client Sample ID: **SW-6**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871007
Lab Project ID: 1176871

Collection Date: 09/26/17 12:24
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	82.0	10.0	3.10	mg/L	1		09/26/17 18:47

Batch Information

Analytical Batch: STS5666
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/26/17 18:47
Container ID: 1176871007-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	0.610 J	1.00	0.310	mg/L	1		09/28/17 17:17

Batch Information

Analytical Batch: WDA4075	Prep Batch: WXX12028
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 09/27/17 21:00
Analytical Date/Time: 09/28/17 17:17	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176871007-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:46
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:46

Batch Information

Analytical Batch: WF12600
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/26/17 21:46
Container ID: 1176871007-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 Phosphorus	0.204	0.200	0.0620	mg/L	1		09/27/17 21:13

Results of SW-6

Client Sample ID: **SW-6**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871007
Lab Project ID: 1176871

Collection Date: 09/26/17 12:24
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4074
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 09/27/17 21:13
Container ID: 1176871007-C

Prep Batch: WXX12027
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/27/17 18:10
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of SW-7

Client Sample ID: **SW-7**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871008
Lab Project ID: 1176871

Collection Date: 09/26/17 12:40
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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	2.15	2.00	2.00	mg/L	1		09/27/17 17:41

Batch Information

Analytical Batch: BOD5865
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/27/17 17:41
Container ID: 1176871008-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	3.0	1.00	1.00	col/100mL	1		09/26/17 18:54

Batch Information

Analytical Batch: BTF16008
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/26/17 18:54
Container ID: 1176871008-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		09/26/17 21:50
Total Coliform	>2420	1	1	MPN/100r	1		09/26/17 21:50

Batch Information

Analytical Batch: BTF16010
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 09/26/17 21:50
Container ID: 1176871008-D



Results of **SW-7**

Client Sample ID: **SW-7**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871008
Lab Project ID: 1176871

Collection Date: 09/26/17 12:40
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	99.0	10.0	3.10	mg/L	1		09/26/17 18:47

Batch Information

Analytical Batch: STS5666
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/26/17 18:47
Container ID: 1176871008-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	0.660 J	1.00	0.310	mg/L	1		09/28/17 17:18

Batch Information

Analytical Batch: WDA4075	Prep Batch: WXX12028
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 09/27/17 21:00
Analytical Date/Time: 09/28/17 17:18	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176871008-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:48
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:48

Batch Information

Analytical Batch: WF12600
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/26/17 21:48
Container ID: 1176871008-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 Phosphorus	0.199 J	0.200	0.0620	mg/L	1		09/27/17 21:14

Print Date: 10/02/2017 3:35:02PM

J flagging is activated

Results of SW-7

Client Sample ID: **SW-7**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871008
Lab Project ID: 1176871

Collection Date: 09/26/17 12:40
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4074
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 09/27/17 21:14
Container ID: 1176871008-C

Prep Batch: WXX12027
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/27/17 18:10
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of SW-8

Client Sample ID: **SW-8**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871009
Lab Project ID: 1176871

Collection Date: 09/26/17 13:49
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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	8.19	2.00	2.00	mg/L	1		09/27/17 17:41

Batch Information

Analytical Batch: BOD5865
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/27/17 17:41
Container ID: 1176871009-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		09/26/17 18:54

Batch Information

Analytical Batch: BTF16008
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/26/17 18:54
Container ID: 1176871009-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		09/26/17 21:50
Total Coliform	>2420	1	1	MPN/100r	1		09/26/17 21:50

Batch Information

Analytical Batch: BTF16010
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 09/26/17 21:50
Container ID: 1176871009-D



Results of **SW-8**

Client Sample ID: **SW-8**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871009
Lab Project ID: 1176871

Collection Date: 09/26/17 13:49
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	183	10.0	3.10	mg/L	1		09/26/17 18:47

Batch Information

Analytical Batch: STS5666
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/26/17 18:47
Container ID: 1176871009-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	0.482 J	1.00	0.310	mg/L	1		09/28/17 17:19

Batch Information

Analytical Batch: WDA4075	Prep Batch: WXX12028
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 09/27/17 21:00
Analytical Date/Time: 09/28/17 17:19	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176871009-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:50
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:50

Batch Information

Analytical Batch: WF12600
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/26/17 21:50
Container ID: 1176871009-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 Phosphorus	0.151 J	0.200	0.0620	mg/L	1		09/27/17 21:14

Results of SW-8

Client Sample ID: **SW-8**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871009
Lab Project ID: 1176871

Collection Date: 09/26/17 13:49
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4074
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 09/27/17 21:14
Container ID: 1176871009-C

Prep Batch: WXX12027
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/27/17 18:10
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of SW-9

Client Sample ID: **SW-9**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871010
Lab Project ID: 1176871

Collection Date: 09/26/17 14:02
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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	4.89	2.00	2.00	mg/L	1		09/27/17 17:41

Batch Information

Analytical Batch: BOD5865
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/27/17 17:41
Container ID: 1176871010-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.0	1.00	1.00	col/100mL	1		09/26/17 18:54

Batch Information

Analytical Batch: BTF16008
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/26/17 18:54
Container ID: 1176871010-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		09/26/17 21:50
Total Coliform	>2420	1	1	MPN/100r	1		09/26/17 21:50

Batch Information

Analytical Batch: BTF16010
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 09/26/17 21:50
Container ID: 1176871010-D



Results of **SW-9**

Client Sample ID: **SW-9**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871010
Lab Project ID: 1176871

Collection Date: 09/26/17 14:02
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	48.0	10.0	3.10	mg/L	1		09/26/17 18:47

Batch Information

Analytical Batch: STS5666
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/26/17 18:47
Container ID: 1176871010-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	0.416 J	1.00	0.310	mg/L	1		09/28/17 17:21

Batch Information

Analytical Batch: WDA4075	Prep Batch: WXX12028
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 09/27/17 21:00
Analytical Date/Time: 09/28/17 17:21	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176871010-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:51
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:51

Batch Information

Analytical Batch: WF12600
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/26/17 21:51
Container ID: 1176871010-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 Phosphorus	0.198 J	0.200	0.0620	mg/L	1		09/27/17 21:15

Results of SW-9

Client Sample ID: **SW-9**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871010
Lab Project ID: 1176871

Collection Date: 09/26/17 14:02
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4074
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 09/27/17 21:15
Container ID: 1176871010-C

Prep Batch: WXX12027
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/27/17 18:10
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of SW-10

Client Sample ID: **SW-10**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871011
Lab Project ID: 1176871

Collection Date: 09/26/17 14:17
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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	3.10	2.00	2.00	mg/L	1		09/27/17 17:41

Batch Information

Analytical Batch: BOD5865
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/27/17 17:41
Container ID: 1176871011-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	14	1.00	1.00	col/100mL	1		09/26/17 18:54

Batch Information

Analytical Batch: BTF16008
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/26/17 18:54
Container ID: 1176871011-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		09/26/17 21:50
Total Coliform	>2420	1	1	MPN/100r	1		09/26/17 21:50

Batch Information

Analytical Batch: BTF16010
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 09/26/17 21:50
Container ID: 1176871011-D



Results of **SW-10**

Client Sample ID: **SW-10**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871011
Lab Project ID: 1176871

Collection Date: 09/26/17 14:17
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	54.0	10.0	3.10	mg/L	1		09/26/17 18:47

Batch Information

Analytical Batch: STS5666
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/26/17 18:47
Container ID: 1176871011-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	0.390 J	1.00	0.310	mg/L	1		09/28/17 17:22

Batch Information

Analytical Batch: WDA4075	Prep Batch: WXX12028
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 09/27/17 21:00
Analytical Date/Time: 09/28/17 17:22	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176871011-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:53
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:53

Batch Information

Analytical Batch: WF12600
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/26/17 21:53
Container ID: 1176871011-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 Phosphorus	0.296	0.200	0.0620	mg/L	1		09/27/17 21:16

Print Date: 10/02/2017 3:35:02PM

J flagging is activated

Results of SW-10

Client Sample ID: **SW-10**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871011
Lab Project ID: 1176871

Collection Date: 09/26/17 14:17
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4074
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 09/27/17 21:16
Container ID: 1176871011-C

Prep Batch: WXX12027
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/27/17 18:10
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of **SW-11**

Client Sample ID: **SW-11**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871012
Lab Project ID: 1176871

Collection Date: 09/26/17 13:08
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Micro Lab-Provisionally Certified as of 092117**

<u>Parameter</u>	<u>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	4.09	2.00	2.00	mg/L	1		09/27/17 17:41

Batch Information

Analytical Batch: BOD5865
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/27/17 17:41
Container ID: 1176871012-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		09/26/17 18:54

Batch Information

Analytical Batch: BTF16008
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/26/17 18:54
Container ID: 1176871012-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		09/26/17 21:50
Total Coliform	>2420	1	1	MPN/100r	1		09/26/17 21:50

Batch Information

Analytical Batch: BTF16010
Analytical Method: SM21 9223B
Analyst: K.W
Analytical Date/Time: 09/26/17 21:50
Container ID: 1176871012-D



Results of **SW-11**

Client Sample ID: **SW-11**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871012
Lab Project ID: 1176871

Collection Date: 09/26/17 13:08
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	209	10.0	3.10	mg/L	1		09/26/17 18:47

Batch Information

Analytical Batch: STS5666
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/26/17 18:47
Container ID: 1176871012-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.500 U	1.00	0.310	mg/L	1		09/28/17 17:23

Batch Information

Analytical Batch: WDA4075	Prep Batch: WXX12028
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 09/27/17 21:00
Analytical Date/Time: 09/28/17 17:23	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176871012-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:55
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/26/17 21:55

Batch Information

Analytical Batch: WF12600
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/26/17 21:55
Container ID: 1176871012-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 Phosphorus	0.147 J	0.200	0.0620	mg/L	1		09/27/17 21:17

Print Date: 10/02/2017 3:35:02PM

J flagging is activated

Results of SW-11

Client Sample ID: **SW-11**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176871012
Lab Project ID: 1176871

Collection Date: 09/26/17 13:08
Received Date: 09/26/17 17:11
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4074
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 09/27/17 21:17
Container ID: 1176871012-C

Prep Batch: WXX12027
Prep Method: SM21 4500P-B,E
Prep Date/Time: 09/27/17 18:10
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1769239 [BOD/5865]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1416395

QC for Samples:

1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

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: BOD5865

Analytical Method: SM21 5210B

Instrument:

Analyst: AKD

Analytical Date/Time: 9/27/2017 5:41:00PM

Print Date: 10/02/2017 3:35:07PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1176871 [BOD5865]

Blank Spike Lab ID: 1416396

Date Analyzed: 09/27/2017 17:41

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

Results by SM21 5210B

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Biochemical Oxygen Demand	198	186	94	(84.6-115.4

Batch Information

Analytical Batch: **BOD5865**

Analytical Method: **SM21 5210B**

Instrument:

Analyst: **AKD**

Print Date: 10/02/2017 3:35:09PM

Method Blank

Blank ID: MB for HBN 1769160 [BTF/16008]

Blank Lab ID: 1416078

QC for Samples:

1176871001, 1176871002, 1176871003

Matrix: Water (Surface, Eff., Ground)

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: BTF16008

Analytical Method: SM21 9222D

Instrument:

Analyst: K.W

Analytical Date/Time: 9/26/2017 5:32:00PM

Print Date: 10/02/2017 3:35:11PM



Method Blank

Blank ID: MB for HBN 1769160 [BTF/16008]
Blank Lab ID: 1416079

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

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: BTF16008
Analytical Method: SM21 9222D
Instrument:
Analyst: K.W
Analytical Date/Time: 9/26/2017 6:54:00PM

Print Date: 10/02/2017 3:35:11PM

Method Blank

Blank ID: MB for HBN 1769172 [BTF/16010]
Blank Lab ID: 1416082

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

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: BTF16010
Analytical Method: SM21 9223B
Instrument:
Analyst: K.W
Analytical Date/Time: 9/26/2017 9:50:00PM

Print Date: 10/02/2017 3:35:14PM



Method Blank

Blank ID: MB for HBN 1769169 [STS/5666]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1416071

QC for Samples:

1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

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: STS5666

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Analytical Date/Time: 9/26/2017 6:47:27PM

Print Date: 10/02/2017 3:35:17PM

Duplicate Sample Summary

Original Sample ID: 1176868001
 Duplicate Sample ID: 1416074
 QC for Samples:

Analysis Date: 09/26/2017 18:47
 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	60.0	58.0	mg/L	3.40	(< 5)

Batch Information

Analytical Batch: STS5666
 Analytical Method: SM21 2540D
 Instrument:
 Analyst: EWW

Print Date: 10/02/2017 3:35:19PM

Duplicate Sample Summary

Original Sample ID: 1176868002

Duplicate Sample ID: 1416075

QC for Samples:

1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

Analysis Date: 09/26/2017 18:47

Matrix: Water (Surface, Eff., Ground)

Results by SM21 2540D

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Suspended Solids	ND	5.00U	mg/L	0.00	(< 5)

Batch Information

Analytical Batch: STS5666

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 10/02/2017 3:35:19PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1176871 [STS5666]
 Blank Spike Lab ID: 1416072
 Date Analyzed: 09/26/2017 18:47

Spike Duplicate ID: LCSD for HBN 1176871 [STS5666]
 Spike Duplicate Lab ID: 1416073
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

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	50	47.6	95	50	49.5	99	(75-125)	3.90	(< 5)

Batch Information

Analytical Batch: **STS5666**
 Analytical Method: **SM21 2540D**
 Instrument:
 Analyst: **EWV**

Method Blank

Blank ID: MB for HBN 1769213 (WFI/2600)
Blank Lab ID: 1416307

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

Results by SM21 4500NO3-F

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Nitrate-N	0.0500U	0.100	0.0300	mg/L
Nitrite-N	0.0500U	0.100	0.0300	mg/L
Total Nitrate/Nitrite-N	0.0500U	0.100	0.0300	mg/L

Batch Information

Analytical Batch: WFI2600
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: AYC
Analytical Date/Time: 9/26/2017 9:20:21PM

Print Date: 10/02/2017 3:35:22PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1176871 [WFI2600]

Blank Spike Lab ID: 1416289

Date Analyzed: 09/26/2017 21:18

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

Results by SM21 4500NO3-F

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	2.5	2.45	98	(70-130)
Nitrite-N	2.5	2.54	102	(90-110)
Total Nitrate/Nitrite-N	5	4.99	100	(90-110)

Batch Information

Analytical Batch: **WFI2600**

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

Instrument: **Astoria segmented flow**

Analyst: **AYC**

Matrix Spike Summary

Original Sample ID: 1176850001
 MS Sample ID: 1416287 MS
 MSD Sample ID: 1416288 MSD

Analysis Date: 09/26/2017 21:32
 Analysis Date: 09/26/2017 21:34
 Analysis Date: 09/26/2017 21:36
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

Results by SM21 4500NO3-F

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Nitrate-N	0.552	2.50	3.18	105	2.50	3.12	103	70-130	1.80	(< 25)
Nitrite-N	0.100U	2.50	2.61	105	2.50	2.61	104	90-110	0.27	(< 25)

Batch Information

Analytical Batch: WFI2600
 Analytical Method: SM21 4500NO3-F
 Instrument: Astoria segmented flow
 Analyst: AYC
 Analytical Date/Time: 9/26/2017 9:34:22PM

Print Date: 10/02/2017 3:35:25PM

Method Blank

Blank ID: MB for HBN 1769278 [WXX/12027]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1416589

QC for Samples:

1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

Results by SM21 4500P-B,E

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Phosphorus	0.00620J	0.0200	0.00620	mg/L

Batch Information

Analytical Batch: WDA4074
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: AYC
Analytical Date/Time: 9/27/2017 8:59:10PM

Prep Batch: WXX12027
Prep Method: SM21 4500P-B,E
Prep Date/Time: 9/27/2017 6:10:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 10/02/2017 3:35:26PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1176871 [WXX12027]
 Blank Spike Lab ID: 1416590
 Date Analyzed: 09/27/2017 21:00

Spike Duplicate ID: LCSD for HBN 1176871 [WXX12027]
 Spike Duplicate Lab ID: 1416591
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

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	0.209	105	0.2	0.192	96	(85-115)	8.80	(< 25)

Batch Information

Analytical Batch: WDA4074
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: AYC

Prep Batch: WXX12027
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 09/27/2017 18:10
 Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Matrix Spike Summary

Original Sample ID: 1176647001
 MS Sample ID: 1416593 MS
 MSD Sample ID: 1416594 MSD

Analysis Date: 09/27/2017 21:02
 Analysis Date: 09/27/2017 21:03
 Analysis Date: 09/27/2017 21:04
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

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	0.0266	0.200	.223	98	0.200	0.221	97	75-125	0.90	(< 25)

Batch Information

Analytical Batch: WDA4074
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: AYC
 Analytical Date/Time: 9/27/2017 9:03:05PM

Prep Batch: WXX12027
 Prep Method: Total Phosphorus (W) Ext.
 Prep Date/Time: 9/27/2017 6:10:00PM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL



Method Blank

Blank ID: MB for HBN 1769306 [WXX/12028]
Blank Lab ID: 1416683

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

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: WDA4075
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: AYC
Analytical Date/Time: 9/28/2017 4:57:48PM

Prep Batch: WXX12028
Prep Method: METHOD
Prep Date/Time: 9/27/2017 9:00:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 10/02/2017 3:35:30PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1176871 [WXX12028]
 Blank Spike Lab ID: 1416684
 Date Analyzed: 09/28/2017 16:59

Spike Duplicate ID: LCSD for HBN 1176871 [WXX12028]
 Spike Duplicate Lab ID: 1416685
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

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	4.06	102	4	4.10	103	(75-125)	0.91	(< 25)

Batch Information

Analytical Batch: **WDA4075**
 Analytical Method: **SM21 4500-N D**
 Instrument: **Discrete Analyzer 2**
 Analyst: **AYC**

Prep Batch: **WXX12028**
 Prep Method: **METHOD**
 Prep Date/Time: **09/27/2017 21:00**
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Matrix Spike Summary

Original Sample ID: 1176647001
 MS Sample ID: 1416686 MS
 MSD Sample ID: 1416687 MSD

Analysis Date: 09/28/2017 17:01
 Analysis Date: 09/28/2017 17:03
 Analysis Date: 09/28/2017 17:04
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176871001, 1176871002, 1176871003, 1176871004, 1176871005, 1176871006, 1176871007, 1176871008, 1176871009, 1176871010, 1176871011, 1176871012

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	4.5	112	4.00	4.49	112	75-125	0.13	(< 25)

Batch Information

Analytical Batch: WDA4075
 Analytical Method: SM21 4500-N D
 Instrument: Discrete Analyzer 2
 Analyst: AYC
 Analytical Date/Time: 9/28/2017 5:03:03PM

Prep Batch: WXX12028
 Prep Method: Distillation TKN by Phenate (W)
 Prep Date/Time: 9/27/2017 9:00:00PM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL



SGS North America Inc. CHAIN OF CUSTODY RECOR

1176871



Locations Nationwide: Alaska, Maryland, New Jersey, New York, North Carolina

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CLIENT: Stantec Consulting

CONTACT: John Marshall **PHONE #:** 907-266-1108

PROJECT NAME: Wasilla WWTP Surface **Project/PWSID/PERMIT#:**

REPORTS TO: John Marshall **E-MAIL:** John.Marshall@stantec.com

INVOICE TO: Stantec Consulting **QUOTE #:** **P.O. #:**

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

Page 1 of 1

Section 3 Preservative

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE	# CONTAINERS	Pres: Type: Comp (Grab) MI (Multi-incremental)	None	H2SO4	Na2SO3	HDPE	HDPE	Na2SO3	REMARKS/LOC ID
							BOD	T-Phos, TKN	Total Coli P/A - Quantitray	TSS	Nitrate/Nitrite	FC	
1A-E	Sw-1	09/26/17	0933	W	6		1	1	1	1	1	1	
2A-E	Sw-2	09/26/17	1000	W	6		1	1	1	1	1	1	
3A-E	Sw-3	09/26/17	1047	W	6		1	1	1	1	1	1	
4A-E	Sw-4	09/26/17	1205	W	6		1	1	1	1	1	1	
5A-E	Duplicate 1	09/26/17	1205	W	6		1	1	1	1	1	1	

Section 4 DOD Project? Yes No Data Deliverable Requirements: Cooler ID: Requested Turnaround Time and/or Special Instructions:

Section 5 Relinquished By: (1) Date: 09/26/17 Time: 17:11 Received By: Section 4 Temp Blank °C: 3.1 D40 Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT Delivery Method: (Check) Hand Delivered Commerical Delivered []



SGS North America Inc. CHAIN OF CUSTODY RECOF

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Locations Nationwide: Alaska, Maryland, New Jersey, New York, North Carolina

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CLIENT: Stantec Consulting

CONTACT: John Marshall **PHONE #:** 907-266-1108

PROJECT NAME: Wasilla WWTP Surface **Project/PWSID/PERMIT#:**

REPORTS TO: John Marshall **E-MAIL:** John.Marshall@stantec.com

INVOICE TO: Stantec Consulting **QUOTE #:** **P.O. #:**

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

Page 1 of 1

Section 3 **Preservative**

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE	# CONTAINERS	Pres: Type: Comp (Grab) MI (Multi-incremental)	None	H2SO4	Na2SO3	HDPE	HDPE	None	None	None	None	None	None	REMARKS/LOC ID
							BOD	T-Phos, TKN	Total Coli P/A - Quantitray	TSS	Nitrate/Nitrite	FC						
6A-E	SW-5	09/26/17	1141	W	6		1	1	1	1	1	1						
7A-E	SW-6	09/26/17	1224	W	6		1	1	1	1	1	1						
8A-E	SW-7	09/26/17	1240	W	6		1	1	1	1	1	1						
9A-E	SW-8	09/26/17	1349	W	6		1	1	1	1	1	1						
10A-E	SW-9	09/26/17	1402	W	6		1	1	1	1	1	1						

Section 4 **DOD Project? Yes (No)** **Data Deliverable Requirements:**

Section 5

Relinquished By: (1) [Signature] Date: 9/26/17 Time: 1712 Received By: [Signature]

Relinquished By: (2) Date: Time: Received By:

Relinquished By: (3) Date: Time: Received By:

Relinquished By: (4) Date: 9/26/17 Time: 17:11 Received For Laboratory By: [Signature]

Section 4 Cooler ID: Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 2.8/24 Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Delivery Method: (Check) Hand Delivered [X] Commercial Delivered []



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1176871

Locations Nationwide
Alaska Maryland
New Jersey New York
North Carolina

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CLIENT: Stantec Consulting					Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.					Page 1 of 1					
CONTACT: John Marshall					PHONE #: 907-266-1108		Section 3		Preservative						
PROJECT NAME: Wasilla WWTP Surface					Project/PWSID/PERMIT#:		CONTAINERS	Pres: Type: Comp (Grab) MI (Multi-incremental)	None	H2SO4	Na2SO3	HDPE	HDPE	Na2SO7	REMARKS/LOC ID
REPORTS TO: John Marshall					E-MAIL: John.Marshall@stantec.com										
INVOICE TO: Stantec Consulting					QUOTE #:										
					P.O. #:										
Section 2	RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE			BOD	T-Phos, TKN	Total Coli P/A - Quantitray	TSS	Nitrate/Nitrite	FC		
	11A-E	SLW-10	09/26/17	1417	W	6		-	-	-	-	-	-		
	12A-E	SLW-11	09/26/17	1308	W	6		-	-	-	-	-	-		
Section 5	Relinquished By: (1)		Date	Time	Received By:		Section 4		DOD Project? Yes <input checked="" type="radio"/> No		Data Deliverable Requirements:				
			09/26/17	1714											
	Relinquished By: (2)		Date	Time	Received By:		Requested Turnaround Time and/or Special Instructions:								
Relinquished By: (3)		Date	Time	Received By:		Temp Blank °C: 2.9D40		Chain of Custody Seal: (Circle)							
						or Ambient []		INTACT BROKEN <input checked="" type="radio"/> ABSENT							
Relinquished By: (4)		Date	Time	Received For Laboratory By:		Delivery Method: (Check) Hand Delivered <input checked="" type="checkbox"/> Commercial Delivered []									
		9/26/17	1711												



e-Sample Receipt Form

SGS Workorder #:

1176871



1 1 7 6 8 7 1

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements	<input checked="" type="checkbox"/> Yes	Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	<input type="checkbox"/> N/A	Hand Delivered
COC accompanied samples?	<input checked="" type="checkbox"/> Yes	
<input type="checkbox"/> N/A	**Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required	
Temperature blank compliant* (i.e., 0-6 °C after CF)?	<input checked="" type="checkbox"/> Yes	Cooler ID: 1 @ 3.1 °C Therm. ID: D40
	<input checked="" type="checkbox"/> Yes	Cooler ID: 2 @ 2.8 °C Therm. ID: D24
	<input checked="" type="checkbox"/> Yes	Cooler ID: 3 @ 2.9 °C Therm. ID: D40
	<input type="checkbox"/>	Cooler ID: @ °C Therm. ID:
	<input type="checkbox"/>	Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	<input type="checkbox"/> N/A	
If <0°C, were sample containers ice free?	<input type="checkbox"/> N/A	
If samples received <u>without</u> a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "COOLER TEMP" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements	Note: Refer to form F-083 "Sample Guide" for specific holding times.	
Were samples received within holding time?	<input checked="" type="checkbox"/> Yes	
Do samples match COC ** (i.e., sample IDs, dates/times collected)?	<input checked="" type="checkbox"/> Yes	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	<input checked="" type="checkbox"/> Yes	
Were proper containers (type/mass/volume/preservative***) used?	<input type="checkbox"/> N/A	***Exemption permitted for metals (e.g.200.8/6020A).
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	<input type="checkbox"/> N/A	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	<input type="checkbox"/> N/A	
Were all soil VOAs field extracted with MeOH+BFB?	<input type="checkbox"/> N/A	
Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.		
Additional notes (if applicable):		
Preserved nitrate disposed of in laboratory per client request. Unpreserved to be analyzed instead.		



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>
1176871001-A	Na2S2O3 for Chlorine Redu	OK	1176871009-C	H2SO4 to pH < 2	OK
1176871001-B	No Preservative Required	OK	1176871009-D	Na2S2O3 for Chlorine Redu	OK
1176871001-C	H2SO4 to pH < 2	OK	1176871009-E	No Preservative Required	OK
1176871001-D	Na2S2O3 for Chlorine Redu	OK	1176871010-A	Na2S2O3 for Chlorine Redu	OK
1176871001-E	No Preservative Required	OK	1176871010-B	No Preservative Required	OK
1176871002-A	Na2S2O3 for Chlorine Redu	OK	1176871010-C	H2SO4 to pH < 2	OK
1176871002-B	No Preservative Required	OK	1176871010-D	Na2S2O3 for Chlorine Redu	OK
1176871002-C	H2SO4 to pH < 2	OK	1176871010-E	No Preservative Required	OK
1176871002-D	Na2S2O3 for Chlorine Redu	OK	1176871011-A	Na2S2O3 for Chlorine Redu	OK
1176871002-E	No Preservative Required	OK	1176871011-B	No Preservative Required	OK
1176871003-A	Na2S2O3 for Chlorine Redu	OK	1176871011-C	H2SO4 to pH < 2	OK
1176871003-B	No Preservative Required	OK	1176871011-D	Na2S2O3 for Chlorine Redu	OK
1176871003-C	H2SO4 to pH < 2	OK	1176871011-E	No Preservative Required	OK
1176871003-D	Na2S2O3 for Chlorine Redu	OK	1176871012-A	Na2S2O3 for Chlorine Redu	OK
1176871003-E	No Preservative Required	OK	1176871012-B	No Preservative Required	OK
1176871004-A	Na2S2O3 for Chlorine Redu	OK	1176871012-C	H2SO4 to pH < 2	OK
1176871004-B	No Preservative Required	OK	1176871012-D	Na2S2O3 for Chlorine Redu	OK
1176871004-C	H2SO4 to pH < 2	OK	1176871012-E	No Preservative Required	OK
1176871004-D	Na2S2O3 for Chlorine Redu	OK			
1176871004-E	No Preservative Required	OK			
1176871005-A	Na2S2O3 for Chlorine Redu	OK			
1176871005-B	No Preservative Required	OK			
1176871005-C	H2SO4 to pH < 2	OK			
1176871005-D	Na2S2O3 for Chlorine Redu	OK			
1176871005-E	No Preservative Required	OK			
1176871006-A	Na2S2O3 for Chlorine Redu	OK			
1176871006-B	No Preservative Required	OK			
1176871006-C	H2SO4 to pH < 2	OK			
1176871006-D	Na2S2O3 for Chlorine Redu	OK			
1176871006-E	No Preservative Required	OK			
1176871007-A	Na2S2O3 for Chlorine Redu	OK			
1176871007-B	No Preservative Required	OK			
1176871007-C	H2SO4 to pH < 2	OK			
1176871007-D	Na2S2O3 for Chlorine Redu	OK			
1176871007-E	No Preservative Required	OK			
1176871008-A	Na2S2O3 for Chlorine Redu	OK			
1176871008-B	No Preservative Required	OK			
1176871008-C	H2SO4 to pH < 2	OK			
1176871008-D	Na2S2O3 for Chlorine Redu	OK			
1176871008-E	No Preservative Required	OK			
1176871009-A	Na2S2O3 for Chlorine Redu	OK			
1176871009-B	No Preservative Required	OK			

Container Id

Preservative

Container
Condition

Container Id

Preservative

Container
Condition

Container Condition Glossary

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

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

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

DM- The container was received damaged.

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

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: **1176902**

Client Project: **Wasilla WWTP Surface**

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: **1176902**
Project Name/Site: **Wasilla WWTP Surface**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

1176882001DUP (1416427) DUP

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

1176882002DUP (1416428) DUP

2540D - Total Suspended Solids - Sample duplicate RPD was outside of acceptance limits. The difference between sample and duplicate results is less than the LOQ.

*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: 10/05/2017 9:45:57AM

Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, 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) for which SGS North America Inc. is Provisionally Certified as of 9/21/2017 & UST-005 (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	Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

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

Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SW-12	1176902001	09/27/2017	09/27/2017	Water (Surface, Eff., Ground)
SW-13	1176902002	09/27/2017	09/27/2017	Water (Surface, Eff., Ground)
SW-14	1176902003	09/27/2017	09/27/2017	Water (Surface, Eff., Ground)
SW-15	1176902004	09/27/2017	09/27/2017	Water (Surface, Eff., Ground)
SW-16	1176902005	09/27/2017	09/27/2017	Water (Surface, Eff., Ground)
SW-17	1176902006	09/27/2017	09/27/2017	Water (Surface, Eff., Ground)
SW-18	1176902007	09/27/2017	09/27/2017	Water (Surface, Eff., Ground)
Duplicate 2	1176902008	09/27/2017	09/27/2017	Water (Surface, Eff., Ground)

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

Print Date: 10/05/2017 9:46:01AM

Detectable Results Summary

Client Sample ID: **SW-12**

Lab Sample ID: 1176902001

Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	5.77	mg/L
E. Coli	33	MPN/100mL
Fecal Coliform	3.0	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Phosphorus	0.393	mg/L
Total Suspended Solids	45.2	mg/L

Waters Department

Client Sample ID: **SW-13**

Lab Sample ID: 1176902002

Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.78	mg/L
E. Coli	12	MPN/100mL
Fecal Coliform	7.0	col/100mL
Total Coliform	613	MPN/100mL
Total Kjeldahl Nitrogen	0.673J	mg/L
Total Phosphorus	0.0640J	mg/L
Total Suspended Solids	31.4	mg/L

Waters Department

Client Sample ID: **SW-14**

Lab Sample ID: 1176902003

Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	6.73	mg/L
E. Coli	16	MPN/100mL
Fecal Coliform	11	col/100mL
Total Coliform	GT2420	MPN/100mL
Total Kjeldahl Nitrogen	0.314J	mg/L
Total Phosphorus	0.674	mg/L
Total Suspended Solids	188	mg/L

Waters Department

Client Sample ID: **SW-15**

Lab Sample ID: 1176902004

Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	2.90	mg/L
E. Coli	6	MPN/100mL
Fecal Coliform	4.0	col/100mL
Total Coliform	579	MPN/100mL
Total Phosphorus	0.0531	mg/L
Total Suspended Solids	83.4	mg/L

Waters Department

Client Sample ID: **SW-16**

Lab Sample ID: 1176902005

Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Biochemical Oxygen Demand	11.5	mg/L
Total Coliform	GT2420	MPN/100mL
Total Phosphorus	1.22	mg/L
Total Suspended Solids	806	mg/L

Waters Department

Detectable Results Summary

Client Sample ID: **SW-17**

Lab Sample ID: 1176902006

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	47	MPN/100mL
Fecal Coliform	18	col/100mL
Total Coliform	980	MPN/100mL
Nitrate-N	2.22	mg/L
Total Kjeldahl Nitrogen	0.462J	mg/L
Total Phosphorus	0.214	mg/L
Total Suspended Solids	0.909J	mg/L

Client Sample ID: **SW-18**

Lab Sample ID: 1176902007

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	9	MPN/100mL
Fecal Coliform	2.0	col/100mL
Total Coliform	2420	MPN/100mL
Nitrate-N	4.68	mg/L
Total Kjeldahl Nitrogen	0.490J	mg/L
Total Phosphorus	0.811	mg/L
Total Suspended Solids	1.94	mg/L

Client Sample ID: **Duplicate 2**

Lab Sample ID: 1176902008

Micro Lab-Provisionally Certified as of 092117

Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
E. Coli	12	MPN/100mL
Fecal Coliform	7.0	col/100mL
Total Coliform	1553	MPN/100mL
Nitrate-N	4.69	mg/L
Total Kjeldahl Nitrogen	0.450J	mg/L
Total Phosphorus	0.803	mg/L
Total Suspended Solids	1.25	mg/L



Results of **SW-12**

Client Sample ID: **SW-12**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902001
Lab Project ID: 1176902

Collection Date: 09/27/17 09:19
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Micro Lab-Provisionally Certified as of 092117**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	5.77	2.00	2.00	mg/L	1		09/28/17 12:08

Batch Information

Analytical Batch: BOD5866
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/28/17 12:08
Container ID: 1176902001-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>
Fecal Coliform	3.0	1.00	1.00	col/100mL	1		09/27/17 16:37

Batch Information

Analytical Batch: BTF16013
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/27/17 16:37
Container ID: 1176902001-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	33	1	1	MPN/100r	1		09/27/17 16:41
Total Coliform	>2420	1	1	MPN/100r	1		09/27/17 16:41

Batch Information

Analytical Batch: BTF16011
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 09/27/17 16:41
Container ID: 1176902001-D



Results of **SW-12**

Client Sample ID: **SW-12**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902001
Lab Project ID: 1176902

Collection Date: 09/27/17 09:19
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	45.2	2.00	0.620	mg/L	1		09/27/17 20:38

Batch Information

Analytical Batch: STS5669
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/27/17 20:38
Container ID: 1176902001-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	5.00 U	10.0	3.10	mg/L	1		10/04/17 18:00

Batch Information

Analytical Batch: WDA4083	Prep Batch: WXX12038
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 10/03/17 22:12
Analytical Date/Time: 10/04/17 18:00	Prep Initial Wt./Vol.: 2.5 mL
Container ID: 1176902001-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/27/17 19:28
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/27/17 19:28

Batch Information

Analytical Batch: WFI2601
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/27/17 19:28
Container ID: 1176902001-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.393	0.200	0.0620	mg/L	1		10/03/17 15:24

Results of SW-12

Client Sample ID: **SW-12**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902001
Lab Project ID: 1176902

Collection Date: 09/27/17 09:19
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4080
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 10/03/17 15:24
Container ID: 1176902001-C

Prep Batch: WXX12035
Prep Method: SM21 4500P-B,E
Prep Date/Time: 10/02/17 19:33
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of SW-13

Client Sample ID: **SW-13**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902002
Lab Project ID: 1176902

Collection Date: 09/27/17 09:36
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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	2.78	2.00	2.00	mg/L	1		09/28/17 12:08

Batch Information

Analytical Batch: BOD5866
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/28/17 12:08
Container ID: 1176902002-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>
Fecal Coliform	7.0	1.00	1.00	col/100mL	1		09/27/17 16:37

Batch Information

Analytical Batch: BTF16013
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/27/17 16:37
Container ID: 1176902002-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	12	1	1	MPN/100r	1		09/27/17 16:41
Total Coliform	613	1	1	MPN/100r	1		09/27/17 16:41

Batch Information

Analytical Batch: BTF16011
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 09/27/17 16:41
Container ID: 1176902002-D



Results of **SW-13**

Client Sample ID: **SW-13**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902002
Lab Project ID: 1176902

Collection Date: 09/27/17 09:36
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	31.4	2.00	0.620	mg/L	1		09/27/17 20:38

Batch Information

Analytical Batch: STS5669
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/27/17 20:38
Container ID: 1176902002-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.673 J	1.00	0.310	mg/L	1		10/04/17 18:01

Batch Information

Analytical Batch: WDA4083	Prep Batch: WXX12038
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 10/03/17 22:12
Analytical Date/Time: 10/04/17 18:01	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176902002-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/27/17 19:30
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/27/17 19:30

Batch Information

Analytical Batch: WFI2601
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/27/17 19:30
Container ID: 1176902002-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0640 J	0.100	0.0310	mg/L	1		10/03/17 15:25

Results of SW-13

Client Sample ID: **SW-13**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902002
Lab Project ID: 1176902

Collection Date: 09/27/17 09:36
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4080
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 10/03/17 15:25
Container ID: 1176902002-C

Prep Batch: WXX12035
Prep Method: SM21 4500P-B,E
Prep Date/Time: 10/02/17 19:33
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 25 mL



Results of **SW-14**

Client Sample ID: **SW-14**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902003
Lab Project ID: 1176902

Collection Date: 09/27/17 10:27
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Micro Lab-Provisionally Certified as of 092117**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	6.73	2.00	2.00	mg/L	1		09/28/17 12:08

Batch Information

Analytical Batch: BOD5866
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/28/17 12:08
Container ID: 1176902003-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>
Fecal Coliform	11	1.00	1.00	col/100mL	1		09/27/17 16:37

Batch Information

Analytical Batch: BTF16013
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/27/17 16:37
Container ID: 1176902003-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	16	1	1	MPN/100r	1		09/27/17 16:41
Total Coliform	>2420	1	1	MPN/100r	1		09/27/17 16:41

Batch Information

Analytical Batch: BTF16011
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 09/27/17 16:41
Container ID: 1176902003-D



Results of **SW-14**

Client Sample ID: **SW-14**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902003
Lab Project ID: 1176902

Collection Date: 09/27/17 10:27
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	188	3.33	1.03	mg/L	1		09/27/17 20:38

Batch Information

Analytical Batch: STS5669
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/27/17 20:38
Container ID: 1176902003-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.314 J	1.00	0.310	mg/L	1		10/04/17 18:05

Batch Information

Analytical Batch: WDA4083	Prep Batch: WXX12038
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 10/03/17 22:12
Analytical Date/Time: 10/04/17 18:05	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176902003-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/27/17 19:31
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/27/17 19:31

Batch Information

Analytical Batch: WF12601
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/27/17 19:31
Container ID: 1176902003-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.674	0.100	0.0310	mg/L	1		10/03/17 15:26

Results of SW-14

Client Sample ID: **SW-14**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902003
Lab Project ID: 1176902

Collection Date: 09/27/17 10:27
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4080
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 10/03/17 15:26
Container ID: 1176902003-C

Prep Batch: WXX12035
Prep Method: SM21 4500P-B,E
Prep Date/Time: 10/02/17 19:33
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 25 mL



Results of SW-15

Client Sample ID: **SW-15**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902004
Lab Project ID: 1176902

Collection Date: 09/27/17 10:11
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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	2.90	2.00	2.00	mg/L	1		09/28/17 12:08

Batch Information

Analytical Batch: BOD5866
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/28/17 12:08
Container ID: 1176902004-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>
Fecal Coliform	4.0	1.00	1.00	col/100mL	1		09/27/17 16:37

Batch Information

Analytical Batch: BTF16013
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/27/17 16:37
Container ID: 1176902004-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	6	1	1	MPN/100r	1		09/27/17 16:41
Total Coliform	579	1	1	MPN/100r	1		09/27/17 16:41

Batch Information

Analytical Batch: BTF16011
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 09/27/17 16:41
Container ID: 1176902004-D



Results of **SW-15**

Client Sample ID: **SW-15**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902004
Lab Project ID: 1176902

Collection Date: 09/27/17 10:11
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	83.4	2.00	0.620	mg/L	1		09/27/17 20:38

Batch Information

Analytical Batch: STS5669
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/27/17 20:38
Container ID: 1176902004-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.500 U	1.00	0.310	mg/L	1		10/04/17 18:07

Batch Information

Analytical Batch: WDA4083	Prep Batch: WXX12038
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 10/03/17 22:12
Analytical Date/Time: 10/04/17 18:07	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176902004-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/27/17 19:33
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/27/17 19:33

Batch Information

Analytical Batch: WF12601
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/27/17 19:33
Container ID: 1176902004-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0531	0.0200	0.00620	mg/L	1		10/03/17 15:27

Results of SW-15

Client Sample ID: **SW-15**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902004
Lab Project ID: 1176902

Collection Date: 09/27/17 10:11
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4080
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 10/03/17 15:27
Container ID: 1176902004-C

Prep Batch: WXX12035
Prep Method: SM21 4500P-B,E
Prep Date/Time: 10/02/17 19:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of SW-16

Client Sample ID: **SW-16**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902005
Lab Project ID: 1176902

Collection Date: 09/27/17 09:50
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Biochemical Oxygen Demand	11.5	2.00	2.00	mg/L	1		09/28/17 12:08

Batch Information

Analytical Batch: BOD5866
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/28/17 12:08
Container ID: 1176902005-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>
Fecal Coliform	1.00 U	1.00	1.00	col/100mL	1		09/27/17 16:37

Batch Information

Analytical Batch: BTF16013
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/27/17 16:37
Container ID: 1176902005-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	1 U	1	1	MPN/100r	1		09/27/17 16:41
Total Coliform	>2420	1	1	MPN/100r	1		09/27/17 16:41

Batch Information

Analytical Batch: BTF16011
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 09/27/17 16:41
Container ID: 1176902005-D



Results of **SW-16**

Client Sample ID: **SW-16**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902005
Lab Project ID: 1176902

Collection Date: 09/27/17 09:50
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	806	4.00	1.24	mg/L	1		09/27/17 20:38

Batch Information

Analytical Batch: STS5669
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/27/17 20:38
Container ID: 1176902005-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	5.00 U	10.0	3.10	mg/L	1		10/04/17 18:11

Batch Information

Analytical Batch: WDA4083	Prep Batch: WXX12038
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 10/03/17 22:12
Analytical Date/Time: 10/04/17 18:11	Prep Initial Wt./Vol.: 2.5 mL
Container ID: 1176902005-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	0.0500 U	0.100	0.0300	mg/L	2		09/27/17 19:35
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/27/17 19:35

Batch Information

Analytical Batch: WFI2601
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/27/17 19:35
Container ID: 1176902005-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	1.22	0.200	0.0620	mg/L	1		10/03/17 15:28

Results of SW-16

Client Sample ID: **SW-16**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902005
Lab Project ID: 1176902

Collection Date: 09/27/17 09:50
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4080
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 10/03/17 15:28
Container ID: 1176902005-C

Prep Batch: WXX12035
Prep Method: SM21 4500P-B,E
Prep Date/Time: 10/02/17 19:33
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL



Results of SW-17

Client Sample ID: **SW-17**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902006
Lab Project ID: 1176902

Collection Date: 09/27/17 11:45
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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		09/28/17 12:08

Batch Information

Analytical Batch: BOD5866
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/28/17 12:08
Container ID: 1176902006-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>
Fecal Coliform	18	1.00	1.00	col/100mL	1		09/27/17 16:37

Batch Information

Analytical Batch: BTF16013
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/27/17 16:37
Container ID: 1176902006-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	47	1	1	MPN/100r	1		09/27/17 16:41
Total Coliform	980	1	1	MPN/100r	1		09/27/17 16:41

Batch Information

Analytical Batch: BTF16011
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 09/27/17 16:41
Container ID: 1176902006-D



Results of **SW-17**

Client Sample ID: **SW-17**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902006
Lab Project ID: 1176902

Collection Date: 09/27/17 11:45
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	0.909 J	1.01	0.313	mg/L	1		09/27/17 20:38

Batch Information

Analytical Batch: STS5669
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/27/17 20:38
Container ID: 1176902006-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.462 J	1.00	0.310	mg/L	1		10/04/17 18:12

Batch Information

Analytical Batch: WDA4083	Prep Batch: WXX12038
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 10/03/17 22:12
Analytical Date/Time: 10/04/17 18:12	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176902006-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	2.22	0.100	0.0300	mg/L	2		09/27/17 19:37
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/27/17 19:37

Batch Information

Analytical Batch: WFI2601
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/27/17 19:37
Container ID: 1176902006-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.214	0.0200	0.00620	mg/L	1		10/03/17 15:29

Results of SW-17

Client Sample ID: **SW-17**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902006
Lab Project ID: 1176902

Collection Date: 09/27/17 11:45
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4080
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 10/03/17 15:29
Container ID: 1176902006-C

Prep Batch: WXX12035
Prep Method: SM21 4500P-B,E
Prep Date/Time: 10/02/17 19:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of SW-18

Client Sample ID: **SW-18**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902007
Lab Project ID: 1176902

Collection Date: 09/27/17 11:13
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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		09/28/17 12:08

Batch Information

Analytical Batch: BOD5866
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/28/17 12:08
Container ID: 1176902007-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>
Fecal Coliform	2.0	1.00	1.00	col/100mL	1		09/27/17 16:37

Batch Information

Analytical Batch: BTF16013
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/27/17 16:37
Container ID: 1176902007-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	9	1	1	MPN/100r	1		09/27/17 16:41
Total Coliform	2420	1	1	MPN/100r	1		09/27/17 16:41

Batch Information

Analytical Batch: BTF16011
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 09/27/17 16:41
Container ID: 1176902007-D



Results of **SW-18**

Client Sample ID: **SW-18**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902007
Lab Project ID: 1176902

Collection Date: 09/27/17 11:13
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	1.94	1.08	0.333	mg/L	1		09/27/17 20:38

Batch Information

Analytical Batch: STS5669
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/27/17 20:38
Container ID: 1176902007-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.490 J	1.00	0.310	mg/L	1		10/04/17 18:13

Batch Information

Analytical Batch: WDA4083	Prep Batch: WXX12038
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 10/03/17 22:12
Analytical Date/Time: 10/04/17 18:13	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176902007-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	4.68	0.100	0.0300	mg/L	2		09/27/17 19:47
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/27/17 19:47

Batch Information

Analytical Batch: WF12601
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/27/17 19:47
Container ID: 1176902007-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.811	0.200	0.0620	mg/L	10		10/03/17 15:54

Results of SW-18

Client Sample ID: **SW-18**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902007
Lab Project ID: 1176902

Collection Date: 09/27/17 11:13
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4080
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 10/03/17 15:54
Container ID: 1176902007-C

Prep Batch: WXX12035
Prep Method: SM21 4500P-B,E
Prep Date/Time: 10/02/17 19:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL



Results of Duplicate 2

Client Sample ID: **Duplicate 2**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902008
Lab Project ID: 1176902

Collection Date: 09/27/17 11:13
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Micro Lab-Provisionally Certified as of 092117

<u>Parameter</u>	<u>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		09/28/17 12:08

Batch Information

Analytical Batch: BOD5866
Analytical Method: SM21 5210B
Analyst: AKD
Analytical Date/Time: 09/28/17 12:08
Container ID: 1176902008-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>
Fecal Coliform	7.0	1.00	1.00	col/100mL	1		09/27/17 16:37

Batch Information

Analytical Batch: BTF16013
Analytical Method: SM21 9222D
Analyst: K.W
Analytical Date/Time: 09/27/17 16:37
Container ID: 1176902008-E

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
E. Coli	12	1	1	MPN/100r	1		09/27/17 16:41
Total Coliform	1553	1	1	MPN/100r	1		09/27/17 16:41

Batch Information

Analytical Batch: BTF16011
Analytical Method: SM21 9223B
Analyst: NRO
Analytical Date/Time: 09/27/17 16:41
Container ID: 1176902008-D



Results of Duplicate 2

Client Sample ID: **Duplicate 2**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902008
Lab Project ID: 1176902

Collection Date: 09/27/17 11:13
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Suspended Solids	1.25	1.04	0.323	mg/L	1		09/27/17 20:38

Batch Information

Analytical Batch: STS5669
Analytical Method: SM21 2540D
Analyst: EWW
Analytical Date/Time: 09/27/17 20:38
Container ID: 1176902008-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Kjeldahl Nitrogen	0.450 J	1.00	0.310	mg/L	1		10/04/17 18:14

Batch Information

Analytical Batch: WDA4083	Prep Batch: WXX12038
Analytical Method: SM21 4500-N D	Prep Method: METHOD
Analyst: AYC	Prep Date/Time: 10/03/17 22:12
Analytical Date/Time: 10/04/17 18:14	Prep Initial Wt./Vol.: 25 mL
Container ID: 1176902008-C	Prep Extract Vol: 25 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Nitrate-N	4.69	0.100	0.0300	mg/L	2		09/27/17 19:49
Nitrite-N	0.0500 U	0.100	0.0300	mg/L	2		09/27/17 19:49

Batch Information

Analytical Batch: WF12601
Analytical Method: SM21 4500NO3-F
Analyst: AYC
Analytical Date/Time: 09/27/17 19:49
Container ID: 1176902008-F

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.803	0.200	0.0620	mg/L	10		10/03/17 15:55

Results of Duplicate 2

Client Sample ID: **Duplicate 2**
Client Project ID: **Wasilla WWTP Surface**
Lab Sample ID: 1176902008
Lab Project ID: 1176902

Collection Date: 09/27/17 11:13
Received Date: 09/27/17 14:21
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Batch Information

Analytical Batch: WDA4080
Analytical Method: SM21 4500P-B,E
Analyst: AYC
Analytical Date/Time: 10/03/17 15:55
Container ID: 1176902008-C

Prep Batch: WXX12035
Prep Method: SM21 4500P-B,E
Prep Date/Time: 10/02/17 19:33
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1769286 [BOD/5866]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1416615

QC for Samples:

1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

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: BOD5866

Analytical Method: SM21 5210B

Instrument:

Analyst: AKD

Analytical Date/Time: 9/28/2017 12:08:00PM

Print Date: 10/05/2017 9:46:08AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1176902 [BOD5866]

Blank Spike Lab ID: 1416616

Date Analyzed: 09/28/2017 12:08

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

Results by SM21 5210B

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Biochemical Oxygen Demand	198	196	99	(84.6-115.4

Batch Information

Analytical Batch: **BOD5866**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **AKD**

Print Date: 10/05/2017 9:46:10AM

Method Blank

Blank ID: MB for HBN 1769230 [BTF/16011]
Blank Lab ID: 1416367

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

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: BTF16011
Analytical Method: SM21 9223B
Instrument:
Analyst: NRO
Analytical Date/Time: 9/27/2017 4:41:00PM

Print Date: 10/05/2017 9:46:12AM

Method Blank

Blank ID: MB for HBN 1769292 [BTF/16013]
Blank Lab ID: 1416641

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

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: BTF16013
Analytical Method: SM21 9222D
Instrument:
Analyst: K.W
Analytical Date/Time: 9/27/2017 4:37:00PM

Print Date: 10/05/2017 9:46:15AM



Method Blank

Blank ID: MB for HBN 1769292 [BTF/16013]
Blank Lab ID: 1416642

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

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: BTF16013
Analytical Method: SM21 9222D
Instrument:
Analyst: K.W
Analytical Date/Time: 9/27/2017 7:02:00PM

Print Date: 10/05/2017 9:46:15AM

Method Blank

Blank ID: MB for HBN 1769243 [STS/5669]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1416424

QC for Samples:

1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

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: STS5669

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Analytical Date/Time: 9/27/2017 8:38:40PM

Print Date: 10/05/2017 9:46:19AM

Duplicate Sample Summary

Original Sample ID: 1176882001

Duplicate Sample ID: 1416427

QC for Samples:

Analysis Date: 09/27/2017 20:38

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	15.1	11.1	mg/L	30.90*	(< 5)

Batch Information

Analytical Batch: STS5669

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 10/05/2017 9:46:20AM

Duplicate Sample Summary

Original Sample ID: 1176882002

Duplicate Sample ID: 1416428

QC for Samples:

1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

Analysis Date: 09/27/2017 20:38

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	10.9	12.1	mg/L	11.10*	(< 5)

Batch Information

Analytical Batch: STS5669

Analytical Method: SM21 2540D

Instrument:

Analyst: EWW

Print Date: 10/05/2017 9:46:20AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1176902 [STS5669]
 Blank Spike Lab ID: 1416425
 Date Analyzed: 09/27/2017 20:38

Spike Duplicate ID: LCSD for HBN 1176902 [STS5669]
 Spike Duplicate Lab ID: 1416426
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

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	50	46.4	93	50	48.4	97	(75-125)	4.20	(< 5)

Batch Information

Analytical Batch: **STS5669**
 Analytical Method: **SM21 2540D**
 Instrument:
 Analyst: **EWV**

Method Blank

Blank ID: MB for HBN 1769245 (WFI/2601)

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1416447

QC for Samples:

1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

Results by SM21 4500NO3-F

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Nitrate-N	0.0500U	0.100	0.0300	mg/L
Nitrite-N	0.0500U	0.100	0.0300	mg/L
Total Nitrate/Nitrite-N	0.0500U	0.100	0.0300	mg/L

Batch Information

Analytical Batch: WFI2601

Analytical Method: SM21 4500NO3-F

Instrument: Astoria segmented flow

Analyst: AYC

Analytical Date/Time: 9/27/2017 7:23:04PM

Print Date: 10/05/2017 9:46:23AM

Method Blank

Blank ID: MB for HBN 1769245 (WFI/2601)

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1416449

QC for Samples:

1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

Results by SM21 4500NO3-F

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Nitrate-N	0.0500U	0.100	0.0300	mg/L
Nitrite-N	0.0500U	0.100	0.0300	mg/L
Total Nitrate/Nitrite-N	0.0500U	0.100	0.0300	mg/L

Batch Information

Analytical Batch: WFI2601

Analytical Method: SM21 4500NO3-F

Instrument: Astoria segmented flow

Analyst: AYC

Analytical Date/Time: 9/27/2017 8:19:05PM

Print Date: 10/05/2017 9:46:23AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1176902 [WFI2601]

Blank Spike Lab ID: 1416435

Date Analyzed: 09/27/2017 19:21

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

Results by SM21 4500NO3-F

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

Batch Information

Analytical Batch: **WFI2601**

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

Instrument: **Astoria segmented flow**

Analyst: **AYC**

Blank Spike Summary

Blank Spike ID: LCS for HBN 1176902 [WFI2601]

Blank Spike Lab ID: 1416448

Date Analyzed: 09/27/2017 20:17

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

Results by SM21 4500NO3-F

Parameter	Blank Spike (mg/L)			CL
	Spike	Result	Rec (%)	
Nitrate-N	2.5	2.54	102	(70-130)
Nitrite-N	2.5	2.35	94	(90-110)
Total Nitrate/Nitrite-N	5	4.89	98	(90-110)

Batch Information

Analytical Batch: **WFI2601**

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

Instrument: **Astoria segmented flow**

Analyst: **AYC**

Print Date: 10/05/2017 9:46:25AM

Matrix Spike Summary

Original Sample ID: 1176902006
 MS Sample ID: 1416431 MS
 MSD Sample ID: 1416432 MSD

Analysis Date: 09/27/2017 19:37
 Analysis Date: 09/27/2017 19:38
 Analysis Date: 09/27/2017 19:40
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

Results by SM21 4500NO3-F

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Nitrate-N	2.22	2.50	4.65	97	2.50	4.68	99	70-130	0.78	(< 25)
Nitrite-N	0.0500U	2.50	2.55	102	2.50	2.53	101	90-110	0.65	(< 25)

Batch Information

Analytical Batch: WFI2601
 Analytical Method: SM21 4500NO3-F
 Instrument: Astoria segmented flow
 Analyst: AYC
 Analytical Date/Time: 9/27/2017 7:38:49PM

Print Date: 10/05/2017 9:46:26AM

Matrix Spike Summary

Original Sample ID: 1176909001
 MS Sample ID: 1416433 MS
 MSD Sample ID: 1416434 MSD

Analysis Date: 09/27/2017 20:29
 Analysis Date: 09/27/2017 20:31
 Analysis Date: 09/27/2017 20:33
 Matrix: Drinking Water

QC for Samples: 1176902007, 1176902008

Results by SM21 4500NO3-F

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Nitrate/Nitrite-N	0.111	5.00	5.03	98	5.00	5.04	99	90-110	0.21	(< 25)

Batch Information

Analytical Batch: WFI2601
 Analytical Method: SM21 4500NO3-F
 Instrument: Astoria segmented flow
 Analyst: AYC
 Analytical Date/Time: 9/27/2017 8:31:20PM

Print Date: 10/05/2017 9:46:26AM

Method Blank

Blank ID: MB for HBN 1769506 [WXX/12035]
Blank Lab ID: 1417649

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

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	0.00620	mg/L

Batch Information

Analytical Batch: WDA4080
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: AYC
Analytical Date/Time: 10/3/2017 3:20:19PM

Prep Batch: WXX12035
Prep Method: SM21 4500P-B,E
Prep Date/Time: 10/2/2017 7:33:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 10/05/2017 9:46:27AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1176902 [WXX12035]
 Blank Spike Lab ID: 1417650
 Date Analyzed: 10/03/2017 15:21

Spike Duplicate ID: LCSD for HBN 1176902 [WXX12035]
 Spike Duplicate Lab ID: 1417651
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

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	0.199	99	(85-115)	0.30	(< 25)

Batch Information

Analytical Batch: WDA4080
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: AYC

Prep Batch: WXX12035
 Prep Method: SM21 4500P-B,E
 Prep Date/Time: 10/02/2017 19:33
 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: 1176902008
 MS Sample ID: 1417652 MS
 MSD Sample ID: 1417653 MSD

Analysis Date: 10/03/2017 15:55
 Analysis Date: 10/03/2017 15:56
 Analysis Date: 10/03/2017 15:56
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

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	0.803	0.200	1.03	114	0.200	1.02	109	75-125	0.84	(< 25)

Batch Information

Analytical Batch: WDA4080
 Analytical Method: SM21 4500P-B,E
 Instrument: Discrete Analyzer 2
 Analyst: AYC
 Analytical Date/Time: 10/3/2017 3:56:08PM

Prep Batch: WXX12035
 Prep Method: Total Phosphorus (W) Ext.
 Prep Date/Time: 10/2/2017 7:33:00PM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Print Date: 10/05/2017 9:46:30AM

Method Blank

Blank ID: MB for HBN 1769617 [WXX/12038]
Blank Lab ID: 1417899

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

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: WDA4083
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: AYC
Analytical Date/Time: 10/4/2017 5:55:20PM

Prep Batch: WXX12038
Prep Method: METHOD
Prep Date/Time: 10/3/2017 10:12:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 10/05/2017 9:46:31AM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1176902 [WXX12038]
 Blank Spike Lab ID: 1417900
 Date Analyzed: 10/04/2017 17:56

Spike Duplicate ID: LCSD for HBN 1176902 [WXX12038]
 Spike Duplicate Lab ID: 1417901
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

Results by SM21 4500-N D

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Kjeldahl Nitrogen	4	3.81	95	4	3.81	95	(75-125)	0.13	(< 25)

Batch Information

Analytical Batch: **WDA4083**
 Analytical Method: **SM21 4500-N D**
 Instrument: **Discrete Analyzer 2**
 Analyst: **AYC**

Prep Batch: **WXX12038**
 Prep Method: **METHOD**
 Prep Date/Time: **10/03/2017 22:12**
 Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
 Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

Print Date: 10/05/2017 9:46:33AM

Matrix Spike Summary

Original Sample ID: 1176902002
 MS Sample ID: 1417902 MS
 MSD Sample ID: 1417903 MSD

Analysis Date: 10/04/2017 18:01
 Analysis Date: 10/04/2017 18:03
 Analysis Date: 10/04/2017 18:04
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1176902001, 1176902002, 1176902003, 1176902004, 1176902005, 1176902006, 1176902007, 1176902008

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	0.673J	4.00	4.71	101	4.00	4.55	97	75-125	3.30	(< 25)

Batch Information

Analytical Batch: WDA4083
 Analytical Method: SM21 4500-N D
 Instrument: Discrete Analyzer 2
 Analyst: AYC
 Analytical Date/Time: 10/4/2017 6:03:13PM

Prep Batch: WXX12038
 Prep Method: Distillation TKN by Phenate (W)
 Prep Date/Time: 10/3/2017 10:12:00PM
 Prep Initial Wt./Vol.: 25.00mL
 Prep Extract Vol: 25.00mL

Print Date: 10/05/2017 9:46:34AM



SGS North America Inc.
CHAIN OF CUSTODY RECORD

1176902



Locations Nationwide
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North Carolina
West Virginia
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Indiana
Kentucky
www.us.sgs.com

CLIENT: Stantec
CONTACT: John Marshall
PHONE NO: 907-266-1108
PROJECT PWSID/ PERMIT#:
NAME: Wasilla WWP Surface
REPORTS TO:
E-MAIL: John.Marshall@stantec.com
INVOICE TO:
QUOTE #:
P.O. #:

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

Page 1 of 1

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE	Section 3						REMARKS/LOC ID	
					Type C = COMP GRAB Multi- Incremental Soils	#	CONTAINERS	Section 4	DOD Project? Yes (No)	Data Deliverable Requirements:		
① A-E	Sw-12	09/27/17	0919	W								Take Nitrate/ Nitrite From IL(TSS). Only perform TN if above cannot be done for Sw-12 - Sw-16
② A-E	Sw-13	09/27/17	0926	W								
③ A-E	Sw-14	09/27/17	1027	W								
④ A-E	Sw-15	09/27/17	1011	W								
⑤ A-E	Sw-16	09/27/17	0950	W								
⑥ A-F	Sw-17	09/27/17	1145	W								
⑦ A-F	Sw-18	09/27/17	1117	W								
⑧ A-F	Duplicate 2	09/27/17	1113	W								

Section 5

Relinquished By: (1) _____ Date _____ Time _____ Received By: _____

Relinquished By: (2) _____ Date _____ Time _____ Received By: _____

Relinquished By: (3) _____ Date _____ Time _____ Received By: _____

Relinquished By: (4) _____ Date 9/27/17 1421 _____ Received For Laboratory By: _____

Temp Blank °C: 10.5 D20 24.7
or Ambient [] D20

Chain of Custody Seal (Circle)
INTACT BROKEN ABSENT
HAND [] [] []

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

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

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e-Sample Receipt Form

SGS Workorder #:

1176902



1 1 7 6 9 0 2

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements	<input checked="" type="checkbox"/> Yes	Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	<input type="checkbox"/> N/A	Absent
COC accompanied samples?	<input checked="" type="checkbox"/> Yes	
<input checked="" type="checkbox"/> Yes **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	<input type="checkbox"/> No	Cooler ID: 1 @ 6.5 °C Therm. ID: D20
	<input checked="" type="checkbox"/> Yes	Cooler ID: 2 @ 4.7 °C Therm. ID: D20
	<input type="checkbox"/> N/A	Cooler ID: @ °C Therm. ID:
	<input type="checkbox"/> N/A	Cooler ID: @ °C Therm. ID:
	<input type="checkbox"/> N/A	Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	<input type="checkbox"/> N/A	
If <0°C, were sample containers ice free?	<input type="checkbox"/> N/A	
If samples received <u>without</u> a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "COOLER TEMP" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	<input checked="" type="checkbox"/> Yes	
Do samples match COC** (i.e., sample IDs, dates/times collected)?	<input checked="" type="checkbox"/> Yes	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	<input checked="" type="checkbox"/> Yes	
Were proper containers (type/mass/volume/preservative***) used?	<input type="checkbox"/> N/A	***Exemption permitted for metals (e.g.200.8/6020A).
	<input type="checkbox"/> No	Improper container received for unpreserved nitrate/nitrite (samples1-5), will use TSS container for the nitrate/nitrite analysis.
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	<input type="checkbox"/> N/A	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	<input type="checkbox"/> N/A	
Were all soil VOAs field extracted with MeOH+BFB?	<input type="checkbox"/> N/A	
Note to Client: Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.		
Additional notes (if applicable):		



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>
1176902001-A	No Preservative Required	OK	1176902008-F	No Preservative Required	OK
1176902001-B	No Preservative Required	OK			
1176902001-C	H2SO4 to pH < 2	OK			
1176902001-D	Na2S2O3 for Chlorine Redu	OK			
1176902001-E	Na2S2O3 for Chlorine Redu	OK			
1176902002-A	No Preservative Required	OK			
1176902002-B	No Preservative Required	OK			
1176902002-C	H2SO4 to pH < 2	OK			
1176902002-D	Na2S2O3 for Chlorine Redu	OK			
1176902002-E	Na2S2O3 for Chlorine Redu	OK			
1176902003-A	No Preservative Required	OK			
1176902003-B	No Preservative Required	OK			
1176902003-C	H2SO4 to pH < 2	OK			
1176902003-D	Na2S2O3 for Chlorine Redu	OK			
1176902003-E	Na2S2O3 for Chlorine Redu	OK			
1176902004-A	No Preservative Required	OK			
1176902004-B	No Preservative Required	OK			
1176902004-C	H2SO4 to pH < 2	OK			
1176902004-D	Na2S2O3 for Chlorine Redu	OK			
1176902004-E	Na2S2O3 for Chlorine Redu	OK			
1176902005-A	No Preservative Required	OK			
1176902005-B	No Preservative Required	OK			
1176902005-C	H2SO4 to pH < 2	OK			
1176902005-D	Na2S2O3 for Chlorine Redu	OK			
1176902005-E	Na2S2O3 for Chlorine Redu	OK			
1176902006-A	No Preservative Required	OK			
1176902006-B	No Preservative Required	OK			
1176902006-C	H2SO4 to pH < 2	OK			
1176902006-D	Na2S2O3 for Chlorine Redu	OK			
1176902006-E	Na2S2O3 for Chlorine Redu	OK			
1176902006-F	No Preservative Required	OK			
1176902007-A	No Preservative Required	OK			
1176902007-B	No Preservative Required	OK			
1176902007-C	H2SO4 to pH < 2	OK			
1176902007-D	Na2S2O3 for Chlorine Redu	OK			
1176902007-E	Na2S2O3 for Chlorine Redu	OK			
1176902007-F	No Preservative Required	OK			
1176902008-A	No Preservative Required	OK			
1176902008-B	No Preservative Required	OK			
1176902008-C	H2SO4 to pH < 2	OK			
1176902008-D	Na2S2O3 for Chlorine Redu	OK			
1176902008-E	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 than an inappropriate container was submitted.

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

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

DM- The container was received damaged.

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

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.