Laboratory Report of Analysis

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

Report Number: **1197408**

Client Project: **Wasilla WWTP**

Dear John Marshall,

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

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

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

Sincerely,
SGS North America Inc.

_____

Justin Nelson Date
Project Manager
Justin.Nelson@sgs.com

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1197408**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

1197408004MS (1547583) MS

300.0 - Anions - MS recovery for nitrite and nitrate+nitrate are outside of QC criteria. Refer to LCS for accuracy requirements.

1197286001MS (1548044) MS

4500NH3-G - Ammonia - MS recovery is outside of QC criteria. Refer to LCS for accuracy requirements.

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

Laboratory Qualifiers

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

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8015C, 8021B, 8082A, 8260C, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). SGS is only certified for the analytes listed on our Drinking Water Certification (DW methods: 200.8, 2130B, 2320B, 2510B, 300.0, 4500-CN-C,E, 4500-H-B, 4500-NO3-F, 4500-P-E and 524.2) and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

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

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

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

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Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
B15	1197408001	12/18/2019	12/18/2019	Water (Surface, Eff., Ground)
B8	1197408002	12/18/2019	12/18/2019	Water (Surface, Eff., Ground)
BW8	1197408003	12/18/2019	12/18/2019	Water (Surface, Eff., Ground)
SW3	1197408004	12/18/2019	12/18/2019	Water (Surface, Eff., Ground)
SW5	1197408005	12/18/2019	12/18/2019	Water (Surface, Eff., Ground)
MW6	1197408006	12/18/2019	12/18/2019	Water (Surface, Eff., Ground)
B4	1197408007	12/18/2019	12/18/2019	Water (Surface, Eff., Ground)

Method	Method Description
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 5210B	Biochemical Oxygen Demand SM21 5210B
SM21 9222D	Fecal Coliform (MF)
EPA 300.0	Ion Chromatographic Analysis
SM21 4500-N D	TKN by Phenate (W)
SM21 9223B	Total Coliform P/A Quant Tray
SM21 4500P-B,E	Total Phosphorus (W)
SM21 2540D	Total Suspended Solids SM20 2540D

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Detectable Results Summary

Client Sample ID: **B15**
Lab Sample ID: 1197408001
Waters Department

Parameter	Result	Units
Ammonia-N	2.70	mg/L
Total Kjeldahl Nitrogen	2.69	mg/L

Client Sample ID: **B8**
Lab Sample ID: 1197408002
Waters Department

Parameter	Result	Units
Ammonia-N	2.31	mg/L
Total Kjeldahl Nitrogen	2.49	mg/L

Client Sample ID: **BW8**
Lab Sample ID: 1197408003
Waters Department

Parameter	Result	Units
Ammonia-N	1.55	mg/L
Total Kjeldahl Nitrogen	1.87	mg/L

Client Sample ID: **SW3**
Lab Sample ID: 1197408004

Parameter	Result	Units
Microbiology Laboratory		
Biochemical Oxygen Demand	2.98	mg/L
E. Coli	25	MPN/100mL
Fecal Coliform	15	col/100mL
Total Coliform	875	MPN/100mL
Waters Department		
Ammonia-N	15.2	mg/L
Total Kjeldahl Nitrogen	17.2	mg/L
Total Phosphorus	3.48	mg/L
Total Suspended Solids	103	mg/L

Client Sample ID: **SW5**
Lab Sample ID: 1197408005

Parameter	Result	Units
Microbiology Laboratory		
Biochemical Oxygen Demand	3.01	mg/L
E. Coli	1	MPN/100mL
Fecal Coliform	1.7	col/100mL
Total Coliform	70	MPN/100mL
Waters Department		
Ammonia-N	0.0983J	mg/L
Total Kjeldahl Nitrogen	0.394J	mg/L
Total Phosphorus	0.0385	mg/L
Total Suspended Solids	4.49	mg/L

Client Sample ID: **B4**
Lab Sample ID: 1197408007
Waters Department

Parameter	Result	Units
Nitrate-N	1.39	mg/L
Total Nitrate/Nitrite-N	1.39	mg/L

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Results of **B15**

Client Sample ID: **B15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197408001
Lab Project ID: 1197408

Collection Date: 12/18/19 10:58
Received Date: 12/18/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	2.69		1.00	0.310	mg/L	1		01/08/20 09:50

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 09:50
Container ID: 1197408001-A

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	2.70		0.100	0.0310	mg/L	1		12/20/19 17:33

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 17:33
Container ID: 1197408001-A

Prep Batch: WXX13157
Prep Method: METHOD
Prep Date/Time: 12/20/19 15:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Results of **B8**

Client Sample ID: **B8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197408002
Lab Project ID: 1197408

Collection Date: 12/18/19 11:15
Received Date: 12/18/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	2.49		1.00	0.310	mg/L	1		01/08/20 09:54

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 09:54
Container ID: 1197408002-A

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	2.31		0.100	0.0310	mg/L	1		12/20/19 17:35

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 17:35
Container ID: 1197408002-A

Prep Batch: WXX13157
Prep Method: METHOD
Prep Date/Time: 12/20/19 15:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 01/08/2020 4:46:25PM

J flagging is activated

Results of **BW8**

Client Sample ID: **BW8**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197408003
Lab Project ID: 1197408

Collection Date: 12/18/19 11:21
Received Date: 12/18/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.87		1.00	0.310	mg/L	1		01/08/20 09:56

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 09:56
Container ID: 1197408003-A

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	1.55		0.100	0.0310	mg/L	1		12/20/19 17:36

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 17:36
Container ID: 1197408003-A

Prep Batch: WXX13157
Prep Method: METHOD
Prep Date/Time: 12/20/19 15:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197408004
Lab Project ID: 1197408

Collection Date: 12/18/19 12:02
Received Date: 12/18/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	2.98		2.00	2.00	mg/L	1		12/19/19 19:15

Batch Information

Analytical Batch: BOD6499
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 12/19/19 19:15
Container ID: 1197408004-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	15		1.64	1.64	col/100mL	1		12/18/19 18:44

Batch Information

Analytical Batch: BTF17835
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 12/18/19 18:44
Container ID: 1197408004-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	25		12.5	12.5	MPN/100m	12.5		12/18/19 17:21
Total Coliform	875		12.5	12.5	MPN/100m	12.5		12/18/19 17:21

Batch Information

Analytical Batch: BTF17833
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 12/18/19 17:21
Container ID: 1197408004-B

Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197408004
Lab Project ID: 1197408

Collection Date: 12/18/19 12:02
Received Date: 12/18/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.100	U	0.200	0.0500	mg/L	1		12/18/19 18:42
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/18/19 18:42
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/18/19 18:42

Batch Information

Analytical Batch: WIC6007
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 12/18/19 18:42
Container ID: 1197408004-D

Prep Batch: WXX13154
Prep Method: METHOD
Prep Date/Time: 12/18/19 17:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	103		1.33	0.413	mg/L	1		12/23/19 17:39

Batch Information

Analytical Batch: STS6579
Analytical Method: SM21 2540D
Analyst: DMM
Analytical Date/Time: 12/23/19 17:39
Container ID: 1197408004-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	17.2		10.0	3.10	mg/L	10		01/08/20 09:57

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 09:57
Container ID: 1197408004-A

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	15.2		1.00	0.310	mg/L	10		12/20/19 18:44

Print Date: 01/08/2020 4:46:25PM

J flagging is activated

Results of **SW3**

Client Sample ID: **SW3**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197408004
Lab Project ID: 1197408

Collection Date: 12/18/19 12:02
Received Date: 12/18/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 18:44
Container ID: 1197408004-A

Prep Batch: WXX13157
Prep Method: METHOD
Prep Date/Time: 12/20/19 15:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	3.48		0.200	0.0500	mg/L	1		12/27/19 16:03

Batch Information

Analytical Batch: WDA4709
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 12/27/19 16:03
Container ID: 1197408004-A

Prep Batch: WXX13160
Prep Method: SM21 4500P-B,E
Prep Date/Time: 12/27/19 11:20
Prep Initial Wt./Vol.: 2.5 mL
Prep Extract Vol: 25 mL

Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197408005
Lab Project ID: 1197408

Collection Date: 12/18/19 14:11
Received Date: 12/18/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	3.01		2.00	2.00	mg/L	1		12/19/19 19:15

Batch Information

Analytical Batch: BOD6499
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 12/19/19 19:15
Container ID: 1197408005-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.7		1.67	1.67	col/100mL	1		12/18/19 18:44

Batch Information

Analytical Batch: BTF17835
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 12/18/19 18:44
Container ID: 1197408005-C

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1		1	1	MPN/100m	1		12/18/19 17:21
Total Coliform	70		1	1	MPN/100m	1		12/18/19 17:21

Batch Information

Analytical Batch: BTF17833
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 12/18/19 17:21
Container ID: 1197408005-B

Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197408005
Lab Project ID: 1197408

Collection Date: 12/18/19 14:11
Received Date: 12/18/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.100	U	0.200	0.0500	mg/L	1		12/18/19 19:20
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/18/19 19:20
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/18/19 19:20

Batch Information

Analytical Batch: WIC6007
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 12/18/19 19:20
Container ID: 1197408005-D

Prep Batch: WXX13154
Prep Method: METHOD
Prep Date/Time: 12/18/19 17:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	4.49		1.12	0.348	mg/L	1		12/23/19 17:39

Batch Information

Analytical Batch: STS6579
Analytical Method: SM21 2540D
Analyst: DMM
Analytical Date/Time: 12/23/19 17:39
Container ID: 1197408005-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.394	J	1.00	0.310	mg/L	1		01/08/20 09:58

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 09:58
Container ID: 1197408005-A

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0983	J	0.100	0.0310	mg/L	1		12/20/19 17:40

Print Date: 01/08/2020 4:46:25PM

J flagging is activated

Results of **SW5**

Client Sample ID: **SW5**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197408005
Lab Project ID: 1197408

Collection Date: 12/18/19 14:11
Received Date: 12/18/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 17:40
Container ID: 1197408005-A

Prep Batch: WXX13157
Prep Method: METHOD
Prep Date/Time: 12/20/19 15:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0385		0.0200	0.00500	mg/L	1		12/27/19 15:04

Batch Information

Analytical Batch: WDA4709
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 12/27/19 15:04
Container ID: 1197408005-A

Prep Batch: WXX13160
Prep Method: SM21 4500P-B,E
Prep Date/Time: 12/27/19 11:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **MW6**

Client Sample ID: **MW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197408006
Lab Project ID: 1197408

Collection Date: 12/18/19 13:51
Received Date: 12/18/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		12/18/19 18:44

Batch Information

Analytical Batch: BTF17835
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 12/18/19 18:44
Container ID: 1197408006-B

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Results of **MW6**

Client Sample ID: **MW6**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197408006
Lab Project ID: 1197408

Collection Date: 12/18/19 13:51
Received Date: 12/18/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.100	U	0.200	0.0500	mg/L	1		12/18/19 19:39
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/18/19 19:39
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/18/19 19:39

Batch Information

Analytical Batch: WIC6007
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 12/18/19 19:39
Container ID: 1197408006-C

Prep Batch: WXX13154
Prep Method: METHOD
Prep Date/Time: 12/18/19 17:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		01/08/20 10:02

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 10:02
Container ID: 1197408006-A

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0500	U	0.100	0.0310	mg/L	1		12/20/19 17:41

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 17:41
Container ID: 1197408006-A

Prep Batch: WXX13157
Prep Method: METHOD
Prep Date/Time: 12/20/19 15:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Results of **B4**

Client Sample ID: **B4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197408007
Lab Project ID: 1197408

Collection Date: 12/18/19 14:28
Received Date: 12/18/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		12/18/19 18:44

Batch Information

Analytical Batch: BTF17835
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 12/18/19 18:44
Container ID: 1197408007-B

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Results of **B4**

Client Sample ID: **B4**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197408007
Lab Project ID: 1197408

Collection Date: 12/18/19 14:28
Received Date: 12/18/19 16:17
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	1.39		0.200	0.0500	mg/L	1		12/18/19 19:58
Nitrite-N	0.100 U		0.200	0.0500	mg/L	1		12/18/19 19:58
Total Nitrate/Nitrite-N	1.39		0.200	0.0500	mg/L	1		12/18/19 19:58

Batch Information

Analytical Batch: WIC6007
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 12/18/19 19:58
Container ID: 1197408007-C

Prep Batch: WXX13154
Prep Method: METHOD
Prep Date/Time: 12/18/19 17:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		01/08/20 10:03

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 10:03
Container ID: 1197408007-A

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0500 U		0.100	0.0310	mg/L	1		12/20/19 17:43

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 17:43
Container ID: 1197408007-A

Prep Batch: WXX13157
Prep Method: METHOD
Prep Date/Time: 12/20/19 15:30
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Method Blank

Blank ID: MB for HBN 1803262 [BOD/6499]
Blank Lab ID: 1547461

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197408004, 1197408005

Results by **SM21 5210B**

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

Batch Information

Analytical Batch: BOD6499
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 12/19/2019 7:15:48PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1197408 [BOD6499]
Blank Spike Lab ID: 1547462
Date Analyzed: 12/19/2019 19:15

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197408004, 1197408005

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	207	105	(84.6-115.4

Batch Information

Analytical Batch: **BOD6499**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 01/08/2020 4:46:31PM

Method Blank

Blank ID: MB for HBN 1803206 [BTF/17833]
Blank Lab ID: 1547225

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197408004, 1197408005

Results by **SM21 9223B**

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

Batch Information

Analytical Batch: BTF17833
Analytical Method: SM21 9223B
Instrument:
Analyst: ACF
Analytical Date/Time: 12/18/2019 5:21:00PM

Method Blank

Blank ID: MB for HBN 1803208 [BTF/17835]
Blank Lab ID: 1547229

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197408004, 1197408005, 1197408006, 1197408007

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF17835
Analytical Method: SM21 9222D
Instrument:
Analyst: A.L
Analytical Date/Time: 12/18/2019 6:44:00PM

Print Date: 01/08/2020 4:46:37PM

Method Blank

Blank ID: MB for HBN 1803329 [STS/6579]
Blank Lab ID: 1547708

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197408004, 1197408005

Results by **SM21 2540D**

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

Batch Information

Analytical Batch: STS6579
Analytical Method: SM21 2540D
Instrument:
Analyst: DMM
Analytical Date/Time: 12/23/2019 5:39:29PM

Print Date: 01/08/2020 4:46:41PM

Duplicate Sample Summary

Original Sample ID: 1197479001
Duplicate Sample ID: 1547711
QC for Samples:
1197408004, 1197408005

Analysis Date: 12/23/2019 17:39
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	25800	26200	mg/L	1.50	(< 5)

Batch Information

Analytical Batch: STS6579
Analytical Method: SM21 2540D
Instrument:
Analyst: DMM

Print Date: 01/08/2020 4:46:43PM

Duplicate Sample Summary

Original Sample ID: 1197454001
Duplicate Sample ID: 1547712
QC for Samples:
1197408004, 1197408005

Analysis Date: 12/23/2019 17:39
Matrix: Water (Surface, Eff., Ground)

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	1070	1090	mg/L	1.90	(< 5)

Batch Information

Analytical Batch: STS6579
Analytical Method: SM21 2540D
Instrument:
Analyst: DMM

Print Date: 01/08/2020 4:46:43PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1197408 [STS6579]
Blank Spike Lab ID: 1547709
Date Analyzed: 12/23/2019 17:39

Spike Duplicate ID: LCSD for HBN 1197408 [STS6579]
Spike Duplicate Lab ID: 1547710
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197408004, 1197408005

Results by **SM21 2540D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Suspended Solids	25	24.2	97	25	24.6	98	(75-125)	1.60	(< 5)

Batch Information

Analytical Batch: **STS6579**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **DMM**

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Method Blank

Blank ID: MB for HBN 1803291 [WXX/13154]
Blank Lab ID: 1547581

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197408004, 1197408005, 1197408006, 1197408007

Results by **EPA 300.0**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.0530J	0.200	0.0500	mg/L
Nitrite-N	0.0970J	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.150J	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WIC6007
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 12/18/2019 6:03:57PM

Prep Batch: WXX13154
Prep Method: METHOD
Prep Date/Time: 12/18/2019 5:00:00PM
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

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Method Blank

Blank ID: MB for HBN 1803291 [WXX/13154]
Blank Lab ID: 1547584

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197408004, 1197408005, 1197408006, 1197408007

Results by **EPA 300.0**

Parameter	Results	LOQ/CL	DL	Units
Nitrate-N	0.0720J	0.200	0.0500	mg/L
Nitrite-N	0.160J	0.200	0.0500	mg/L
Total Nitrate/Nitrite-N	0.232*	0.200	0.0500	mg/L

Batch Information

Analytical Batch: WIC6007
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 12/18/2019 8:17:17PM

Prep Batch: WXX13154
Prep Method: METHOD
Prep Date/Time: 12/18/2019 5:00:00PM
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1197408 [WXX13154]
Blank Spike Lab ID: 1547582
Date Analyzed: 12/18/2019 18:23

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197408004, 1197408005, 1197408006, 1197408007

Results by **EPA 300.0**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	5	5.33	107	(90-110)
Nitrite-N	5	5.30	106	(90-110)
Total Nitrate/Nitrite-N	10	10.6	106	(90-110)

Batch Information

Analytical Batch: **WIC6007**
Analytical Method: **EPA 300.0**
Instrument: **930 Metrohm compact IC flex**
Analyst: **DMM**

Prep Batch: **WXX13154**
Prep Method: **METHOD**
Prep Date/Time: **12/18/2019 17:00**
Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL
Dupe Init Wt./Vol.: Extract Vol:

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1197408 [WXX13154]
Blank Spike Lab ID: 1547585
Date Analyzed: 12/18/2019 20:36

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197408004, 1197408005, 1197408006, 1197408007

Results by **EPA 300.0**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	5	5.41	108	(90-110)
Nitrite-N	5	5.41	108	(90-110)
Total Nitrate/Nitrite-N	10	10.8	108	(90-110)

Batch Information

Analytical Batch: **WIC6007**
Analytical Method: **EPA 300.0**
Instrument: **930 Metrohm compact IC flex**
Analyst: **DMM**

Prep Batch: **WXX13154**
Prep Method: **METHOD**
Prep Date/Time: **12/18/2019 17:00**
Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1197408004
MS Sample ID: 1547583 MS
MSD Sample ID:

Analysis Date: 12/18/2019 18:42
Analysis Date: 12/18/2019 19:01
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197408004, 1197408005, 1197408006, 1197408007

Results by **EPA 300.0**

		Matrix Spike (mg/L)				Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	0.100U	5.00	4.49	90	*				90-110		
Nitrite-N	0.100U	5.00	3.52	70	*				90-110		
Total Nitrate/Nitrite-N	0.100U	10.0	8.01	80	*				90-110		

Batch Information

Analytical Batch: WIC6007
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 12/18/2019 7:01:17PM

Prep Batch: WXX13154
Prep Method: EPA 300.0 Extraction Waters/Liquids
Prep Date/Time: 12/18/2019 5:00:00PM
Prep Initial Wt./Vol.: 10.00mL
Prep Extract Vol: 10.00mL

Nitrate-N Recovery is within criteria after application of proper rounding rules.

Print Date: 01/08/2020 4:46:50PM

Method Blank

Blank ID: MB for HBN 1803396 [WXX/13157]
Blank Lab ID: 1548041

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197408001, 1197408002, 1197408003, 1197408004, 1197408005, 1197408006, 1197408007

Results by **SM21 4500-NH3 G**

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

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 12/20/2019 5:08:18PM

Prep Batch: WXX13157
Prep Method: METHOD
Prep Date/Time: 12/20/2019 3:30:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1197408 [WXX13157]
Blank Spike Lab ID: 1548042
Date Analyzed: 12/20/2019 17:09

Spike Duplicate ID: LCSD for HBN 1197408 [WXX13157]
Spike Duplicate Lab ID: 1548043
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197408001, 1197408002, 1197408003, 1197408004, 1197408005, 1197408006, 1197408007

Results by **SM21 4500-NH3 G**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	1	1.04	104	1	1.11	111	(75-125)	6.40	(< 25)

Batch Information

Analytical Batch: **WDA4707**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX13157**
Prep Method: **METHOD**
Prep Date/Time: **12/20/2019 15:30**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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Matrix Spike Summary

Original Sample ID: 1197286001
MS Sample ID: 1548044 MS
MSD Sample ID: 1548045 MSD

Analysis Date: 12/20/2019 17:16
Analysis Date: 12/20/2019 17:18
Analysis Date: 12/20/2019 17:19
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197408001, 1197408002, 1197408003, 1197408004, 1197408005, 1197408006, 1197408007

Results by **SM21 4500-NH3 G**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	0.326	1.00	1.83	150 *	1.00	1.58	125	75-125	14.60	(< 25)

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 12/20/2019 5:18:19PM

Prep Batch: WXX13157
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 12/20/2019 3:30:00PM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 01/08/2020 4:46:55PM

Method Blank

Blank ID: MB for HBN 1803403 [WXX/13160]
Blank Lab ID: 1548093

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197408004, 1197408005

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

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

Batch Information

Analytical Batch: WDA4709
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 12/27/2019 2:58:56PM

Prep Batch: WXX13160
Prep Method: SM21 4500P-B,E
Prep Date/Time: 12/27/2019 11:20:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1197408 [WXX13160]
Blank Spike Lab ID: 1548094
Date Analyzed: 12/27/2019 14:59

Spike Duplicate ID: LCSD for HBN 1197408 [WXX13160]
Spike Duplicate Lab ID: 1548095
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197408004, 1197408005

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

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.2	0.189	95	0.2	0.189	95	(75-125)	0.21	(< 25)

Batch Information

Analytical Batch: **WDA4709**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX13160**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **12/27/2019 11:20**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1199993008
MS Sample ID: 1548096 MS
MSD Sample ID: 1548097 MSD

Analysis Date: 12/27/2019 15:35
Analysis Date: 12/27/2019 15:38
Analysis Date: 12/27/2019 15:39
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197408004, 1197408005

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

		Matrix Spike (mg/L)				Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.0100U	0.200	.149	75	*	0.200	0.150	75	75-125	0.47	(< 25)

Batch Information

Analytical Batch: WDA4709
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 12/27/2019 3:38:19PM

Prep Batch: WXX13160
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 12/27/2019 11:20:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 01/08/2020 4:47:00PM

Method Blank

Blank ID: MB for HBN 1803648 [WXX/13166]
Blank Lab ID: 1548708

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197408001, 1197408002, 1197408003, 1197408004, 1197408005, 1197408006, 1197408007

Results by **SM21 4500-N D**

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

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: EWW
Analytical Date/Time: 1/8/2020 9:46:53AM

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 1/7/2020 10:31:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1197408 [WXX13166]
Blank Spike Lab ID: 1548709
Date Analyzed: 01/08/2020 09:48

Spike Duplicate ID: LCSD for HBN 1197408 [WXX13166]
Spike Duplicate Lab ID: 1548710
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197408001, 1197408002, 1197408003, 1197408004, 1197408005, 1197408006, 1197408007

Results by **SM21 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	4.04	101	4	3.91	98	(75-125)	3.40	(< 25)

Batch Information

Analytical Batch: **WDA4714**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **EWW**

Prep Batch: **WXX13166**
Prep Method: **METHOD**
Prep Date/Time: **01/07/2020 10:31**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1197408001
MS Sample ID: 1548711 MS
MSD Sample ID: 1548712 MSD

Analysis Date: 01/08/2020 9:50
Analysis Date: 01/08/2020 9:52
Analysis Date: 01/08/2020 9:53
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197408001, 1197408002, 1197408003, 1197408004, 1197408005, 1197408006, 1197408007

Results by **SM21 4500-N D**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	2.69	4.00	5.83	79	4.00	5.95	81	75-125	2.00	(< 25)

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: EWW
Analytical Date/Time: 1/8/2020 9:52:08AM

Prep Batch: WXX13166
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 1/7/2020 10:31:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 01/08/2020 4:47:06PM

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1197408

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New Jersey	New York
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348183 WSW 12/18/19

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

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Section 1

CLIENT: Stantec

CONTACT: Jake Allwardt PHONE NO: 343-5202

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

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

INVOICE TO: QUOTE #:

P.O. #: 2047041S

Section 3

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Preservative: BOD	TSS	Nitrate/Nitrite	FC	TC (Quanti-Tray)	TKN/Ammonia	TKN/Ammonia				REMARKS/ LOC ID
							1	1	1	NaOH	NaOH	H2SO4	H2SO4				
1A	B15	12/18/19	1058	Water	1	G							1				
2A	B8		~~1145~~ 1115		1								1				
3A	BWB		1121		1								1				
4AF	SW3		1202		6		1	1	1	1	1	1					
5AF	SW5		1411		6		1	1	1	1	1	1					
6AC	MW6		1351		3				1	1			1				
7AC	B4		1428		3				1	1			1				

Section 5

	Date	Time	
Relinquished By: (1)	12/18/19	1617	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	12/18/19	16:17	Received For Laboratory By: MA

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 1.1 D45

or Ambient [ ]

(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)

INTACT BROKEN ABSENT H.D

(See attached Sample Receipt Form)

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

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

F083-Kit_Request_and_COC_Templates-Blank
Revised 2013-03-24

e-Sample Receipt Form

SGS Workorder #: **1197408**

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		Yes — Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	N/A	Absent
COC accompanied samples?	Yes	
DOD: Were samples received in COC corresponding coolers?	N/A	
	N/A	**Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required
Temperature blank compliant* (i.e., 0-6 °C after CF)?	Yes	Cooler ID: 1 @ 1.1 °C Therm. ID: D45
		Cooler ID: @ °C Therm. ID:
If samples received without a temperature blank, the "cooler temperature" will be documented instead & "COOLER TEMP" will be noted to the right. "ambient" or "chilled" will be noted if neither is available.		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	N/A	
If <0°C, were sample containers ice free?	N/A	
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	Yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	Yes	
**Note: If times differ <1hr, record details & login per COC.		
***Note: If sample information on containers differs from COC, SGS will default to COC information		
Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals)	Yes	
	N/A	***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	Yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	N/A	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	N/A	
Were all soil VOAs field extracted with MeOH+BFB?	N/A	

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

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1197408001-A	H2SO4 to pH < 2	OK			
1197408002-A	H2SO4 to pH < 2	OK			
1197408003-A	H2SO4 to pH < 2	OK			
1197408004-A	H2SO4 to pH < 2	OK			
1197408004-B	Na2S2O3 for Chlorine Redu	OK			
1197408004-C	Na2S2O3 for Chlorine Redu	OK			
1197408004-D	No Preservative Required	OK			
1197408004-E	No Preservative Required	OK			
1197408004-F	No Preservative Required	OK			
1197408005-A	H2SO4 to pH < 2	OK			
1197408005-B	Na2S2O3 for Chlorine Redu	OK			
1197408005-C	Na2S2O3 for Chlorine Redu	OK			
1197408005-D	No Preservative Required	OK			
1197408005-E	No Preservative Required	OK			
1197408005-F	No Preservative Required	OK			
1197408006-A	H2SO4 to pH < 2	OK			
1197408006-B	Na2S2O3 for Chlorine Redu	OK			
1197408006-C	No Preservative Required	OK			
1197408007-A	H2SO4 to pH < 2	OK			
1197408007-B	Na2S2O3 for Chlorine Redu	OK			
1197408007-C	No Preservative Required	OK			

Container Condition Glossary

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

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
QN - Insufficient sample quantity provided.

Laboratory Report of Analysis

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

Report Number: **1197446**

Client Project: **Wasilla WWTP**

Dear John Marshall,

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

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

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

Sincerely,
SGS North America Inc.

_____

Justin Nelson Date
Project Manager
Justin.Nelson@sgs.com

Case Narrative

SGS Client: **Stantec Consulting Services Inc.**
SGS Project: **1197446**
Project Name/Site: **Wasilla WWTP**
Project Contact: **John Marshall**

Refer to sample receipt form for information on sample condition.

1197390003(1547883MS) (1547886) MS

300.0 - Anions - MS recoveries for Chloride and Sulfate are outside of QC criteria. Refer to LCS for accuracy requirements.

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

SGS North America Inc.
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t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Laboratory Qualifiers

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

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8015C, 8021B, 8082A, 8260C, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). SGS is only certified for the analytes listed on our Drinking Water Certification (DW methods: 200.8, 2130B, 2320B, 2510B, 300.0, 4500-CN-C,E, 4500-H-B, 4500-NO3-F, 4500-P-E and 524.2) and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

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

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

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

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Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
SW9	1197446001	12/19/2019	12/19/2019	Water (Surface, Eff., Ground)
B11	1197446002	12/19/2019	12/19/2019	Water (Surface, Eff., Ground)
SW15	1197446003	12/19/2019	12/19/2019	Water (Surface, Eff., Ground)
SW17	1197446004	12/19/2019	12/19/2019	Water (Surface, Eff., Ground)
DUP1	1197446005	12/19/2019	12/19/2019	Water (Surface, Eff., Ground)
SW18	1197446006	12/19/2019	12/19/2019	Water (Surface, Eff., Ground)
Eff	1197446007	12/19/2019	12/19/2019	Water (Surface, Eff., Ground)
MW10	1197446008	12/19/2019	12/19/2019	Water (Surface, Eff., Ground)
MW15	1197446009	12/19/2019	12/19/2019	Water (Surface, Eff., Ground)

Method	Method Description
SM21 4500-NH3 G	Ammonia-N (W) SM21 4500-NH3 G
SM21 5210B	Biochemical Oxygen Demand SM21 5210B
SM21 9222D	Fecal Coliform (MF)
EPA 300.0	Ion Chromatographic Analysis
SM21 4500-N D	TKN by Phenate (W)
SM21 9223B	Total Coliform P/A Quant Tray
SM21 4500P-B,E	Total Phosphorus (W)
SM21 2540D	Total Suspended Solids SM20 2540D

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Detectable Results Summary

Client Sample ID: **SW9**
Lab Sample ID: 1197446001

	Parameter	Result	Units
Microbiology Laboratory	Total Coliform	116	MPN/100mL
Waters Department	Ammonia-N	0.410	mg/L
	Nitrate-N	0.182J	mg/L
	Total Kjeldahl Nitrogen	1.39	mg/L
	Total Nitrate/Nitrite-N	0.231	mg/L
	Total Phosphorus	0.0680	mg/L

Client Sample ID: **B11**
Lab Sample ID: 1197446002

	Parameter	Result	Units
Waters Department	Ammonia-N	0.162	mg/L

Client Sample ID: **SW15**
Lab Sample ID: 1197446003

	Parameter	Result	Units
Microbiology Laboratory	Biochemical Oxygen Demand	3.68	mg/L
	E. Coli	4	MPN/100mL
	Total Coliform	72	MPN/100mL
Waters Department	Ammonia-N	0.197	mg/L
	Total Kjeldahl Nitrogen	0.353J	mg/L
	Total Phosphorus	0.0621	mg/L
	Total Suspended Solids	14.7	mg/L

Client Sample ID: **SW17**
Lab Sample ID: 1197446004

	Parameter	Result	Units
Microbiology Laboratory	E. Coli	3	MPN/100mL
	Fecal Coliform	3.3	col/100mL
	Total Coliform	138	MPN/100mL
Waters Department	Ammonia-N	0.134	mg/L
	Nitrate-N	4.75	mg/L
	Total Nitrate/Nitrite-N	4.79	mg/L
	Total Phosphorus	0.100	mg/L
	Total Suspended Solids	1.35	mg/L

Client Sample ID: **DUP1**
Lab Sample ID: 1197446005

	Parameter	Result	Units
Microbiology Laboratory	E. Coli	2	MPN/100mL
	Fecal Coliform	3.3	col/100mL
	Total Coliform	71	MPN/100mL
Waters Department	Ammonia-N	0.104	mg/L
	Nitrate-N	4.72	mg/L
	Total Nitrate/Nitrite-N	4.76	mg/L
	Total Phosphorus	0.104	mg/L
	Total Suspended Solids	2.04	mg/L

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Detectable Results Summary

Client Sample ID: **SW18**
Lab Sample ID: 1197446006

Microbiology Laboratory

Waters Department

Parameter	Result	Units
E. Coli	2	MPN/100mL
Fecal Coliform	1.7	col/100mL
Total Coliform	166	MPN/100mL
Ammonia-N	0.140	mg/L
Nitrate-N	5.82	mg/L
Total Kjeldahl Nitrogen	0.346J	mg/L
Total Nitrate/Nitrite-N	5.87	mg/L
Total Phosphorus	0.354	mg/L
Total Suspended Solids	5.89	mg/L

Client Sample ID: **Eff**
Lab Sample ID: 1197446007

Microbiology Laboratory
Waters Department

Parameter	Result	Units
Fecal Coliform	36300	col/100mL
Ammonia-N	30.0	mg/L
Total Kjeldahl Nitrogen	48.6	mg/L

Client Sample ID: **MW10**
Lab Sample ID: 1197446008

Waters Department

Parameter	Result	Units
Nitrate-N	0.113J	mg/L
Total Nitrate/Nitrite-N	0.159J	mg/L

Client Sample ID: **MW15**
Lab Sample ID: 1197446009

Waters Department

Parameter	Result	Units
Ammonia-N	0.207	mg/L
Nitrate-N	0.643	mg/L
Nitrite-N	0.171J	mg/L
Total Nitrate/Nitrite-N	0.814	mg/L

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Results of **SW9**

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446001
Lab Project ID: 1197446

Collection Date: 12/19/19 11:00
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

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

Batch Information

Analytical Batch: BOD6499
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 12/19/19 19:15
Container ID: 1197446001-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64 U		1.64	1.64	col/100mL	1		12/19/19 18:22

Batch Information

Analytical Batch: BTF17839
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 12/19/19 18:22
Container ID: 1197446001-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	1 U		1	1	MPN/100m	1		12/19/19 17:45
Total Coliform	116		1	1	MPN/100m	1		12/19/19 17:45

Batch Information

Analytical Batch: BTF17838
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 12/19/19 17:45
Container ID: 1197446001-B

Results of **SW9**

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446001
Lab Project ID: 1197446

Collection Date: 12/19/19 11:00
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.182	J	0.200	0.0500	mg/L	1		12/19/19 18:44
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/19/19 18:44
Total Nitrate/Nitrite-N	0.231		0.200	0.0500	mg/L	1		12/19/19 18:44

Batch Information

Analytical Batch: WIC6008
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 12/19/19 18:44
Container ID: 1197446001-C

Prep Batch: WXX13155
Prep Method: METHOD
Prep Date/Time: 12/19/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	0.575	U	1.15	0.356	mg/L	1		12/23/19 17:39

Batch Information

Analytical Batch: STS6579
Analytical Method: SM21 2540D
Analyst: DMM
Analytical Date/Time: 12/23/19 17:39
Container ID: 1197446001-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	1.39		1.00	0.310	mg/L	1		01/08/20 10:05

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 10:05
Container ID: 1197446001-D

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.410		0.100	0.0310	mg/L	1		12/20/19 17:56

Print Date: 01/08/2020 4:49:12PM

J flagging is activated

Results of **SW9**

Client Sample ID: **SW9**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446001
Lab Project ID: 1197446

Collection Date: 12/19/19 11:00
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 17:56
Container ID: 1197446001-D

Prep Batch: WXX13158
Prep Method: METHOD
Prep Date/Time: 12/20/19 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0680		0.0200	0.00500	mg/L	1		12/27/19 15:05

Batch Information

Analytical Batch: WDA4709
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 12/27/19 15:05
Container ID: 1197446001-D

Prep Batch: WXX13160
Prep Method: SM21 4500P-B,E
Prep Date/Time: 12/27/19 11:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **B11**

Client Sample ID: **B11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446002
Lab Project ID: 1197446

Collection Date: 12/19/19 11:34
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		12/19/19 18:22

Batch Information

Analytical Batch: BTF17839
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 12/19/19 18:22
Container ID: 1197446002-A

Results of **B11**

Client Sample ID: **B11**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446002
Lab Project ID: 1197446

Collection Date: 12/19/19 11:34
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.100	U	0.200	0.0500	mg/L	1		12/19/19 20:00
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/19/19 20:00
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/19/19 20:00

Batch Information

Analytical Batch: WIC6008
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 12/19/19 20:00
Container ID: 1197446002-B

Prep Batch: WXX13155
Prep Method: METHOD
Prep Date/Time: 12/19/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		01/08/20 10:06

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 10:06
Container ID: 1197446002-C

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.162		0.100	0.0310	mg/L	1		12/20/19 17:58

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 17:58
Container ID: 1197446002-C

Prep Batch: WXX13158
Prep Method: METHOD
Prep Date/Time: 12/20/19 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446003
Lab Project ID: 1197446

Collection Date: 12/19/19 12:14
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Biochemical Oxygen Demand	3.68		2.00	2.00	mg/L	1		12/19/19 19:15

Batch Information

Analytical Batch: BOD6499
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 12/19/19 19:15
Container ID: 1197446003-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.67	U	1.67	1.67	col/100mL	1		12/19/19 18:22

Batch Information

Analytical Batch: BTF17839
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 12/19/19 18:22
Container ID: 1197446003-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	4		1	1	MPN/100m	1		12/19/19 17:45
Total Coliform	72		1	1	MPN/100m	1		12/19/19 17:45

Batch Information

Analytical Batch: BTF17838
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 12/19/19 17:45
Container ID: 1197446003-B

Print Date: 01/08/2020 4:49:12PM

J flagging is activated

Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446003
Lab Project ID: 1197446

Collection Date: 12/19/19 12:14
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.100	U	0.200	0.0500	mg/L	1		12/19/19 20:57
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/19/19 20:57
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/19/19 20:57

Batch Information

Analytical Batch: WIC6008
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 12/19/19 20:57
Container ID: 1197446003-C

Prep Batch: WXX13155
Prep Method: METHOD
Prep Date/Time: 12/19/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	14.7		1.00	0.310	mg/L	1		12/23/19 17:39

Batch Information

Analytical Batch: STS6579
Analytical Method: SM21 2540D
Analyst: DMM
Analytical Date/Time: 12/23/19 17:39
Container ID: 1197446003-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.353	J	1.00	0.310	mg/L	1		01/08/20 10:07

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 10:07
Container ID: 1197446003-D

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.197		0.100	0.0310	mg/L	1		12/20/19 18:00

Print Date: 01/08/2020 4:49:12PM

J flagging is activated

Results of **SW15**

Client Sample ID: **SW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446003
Lab Project ID: 1197446

Collection Date: 12/19/19 12:14
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 18:00
Container ID: 1197446003-D

Prep Batch: WXX13158
Prep Method: METHOD
Prep Date/Time: 12/20/19 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0621		0.0200	0.00500	mg/L	1		12/27/19 15:06

Batch Information

Analytical Batch: WDA4709
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 12/27/19 15:06
Container ID: 1197446003-D

Prep Batch: WXX13160
Prep Method: SM21 4500P-B,E
Prep Date/Time: 12/27/19 11:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446004
Lab Project ID: 1197446

Collection Date: 12/19/19 12:57
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

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

Batch Information

Analytical Batch: BOD6499
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 12/19/19 19:15
Container ID: 1197446004-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	3.3		1.67	1.67	col/100mL	1		12/19/19 18:22

Batch Information

Analytical Batch: BTF17839
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 12/19/19 18:22
Container ID: 1197446004-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	3		1	1	MPN/100m	1		12/19/19 17:45
Total Coliform	138		1	1	MPN/100m	1		12/19/19 17:45

Batch Information

Analytical Batch: BTF17838
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 12/19/19 17:45
Container ID: 1197446004-B

Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446004
Lab Project ID: 1197446

Collection Date: 12/19/19 12:57
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	4.75		0.200	0.0500	mg/L	1		12/19/19 21:16
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/19/19 21:16
Total Nitrate/Nitrite-N	4.79		0.200	0.0500	mg/L	1		12/19/19 21:16

Batch Information

Analytical Batch: WIC6008
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 12/19/19 21:16
Container ID: 1197446004-C

Prep Batch: WXX13155
Prep Method: METHOD
Prep Date/Time: 12/19/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	1.35		1.04	0.323	mg/L	1		12/23/19 17:39

Batch Information

Analytical Batch: STS6579
Analytical Method: SM21 2540D
Analyst: DMM
Analytical Date/Time: 12/23/19 17:39
Container ID: 1197446004-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		01/08/20 10:09

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 10:09
Container ID: 1197446004-D

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.134		0.100	0.0310	mg/L	1		12/20/19 18:01

Print Date: 01/08/2020 4:49:12PM

J flagging is activated

Results of **SW17**

Client Sample ID: **SW17**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446004
Lab Project ID: 1197446

Collection Date: 12/19/19 12:57
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 18:01
Container ID: 1197446004-D

Prep Batch: WXX13158
Prep Method: METHOD
Prep Date/Time: 12/20/19 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.100		0.0200	0.00500	mg/L	1		12/27/19 15:23

Batch Information

Analytical Batch: WDA4709
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 12/27/19 15:23
Container ID: 1197446004-D

Prep Batch: WXX13160
Prep Method: SM21 4500P-B,E
Prep Date/Time: 12/27/19 11:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **DUP1**

Client Sample ID: **DUP1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446005
Lab Project ID: 1197446

Collection Date: 12/19/19 12:57
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

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

Batch Information

Analytical Batch: BOD6499
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 12/19/19 19:15
Container ID: 1197446005-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	3.3		1.64	1.64	col/100mL	1		12/19/19 18:22

Batch Information

Analytical Batch: BTF17839
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 12/19/19 18:22
Container ID: 1197446005-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	2		1	1	MPN/100m	1		12/19/19 17:45
Total Coliform	71		1	1	MPN/100m	1		12/19/19 17:45

Batch Information

Analytical Batch: BTF17838
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 12/19/19 17:45
Container ID: 1197446005-B

Print Date: 01/08/2020 4:49:12PM

J flagging is activated

Results of **DUP1**

Client Sample ID: **DUP1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446005
Lab Project ID: 1197446

Collection Date: 12/19/19 12:57
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	4.72		0.200	0.0500	mg/L	1		12/19/19 21:35
Nitrite-N	0.100 U		0.200	0.0500	mg/L	1		12/19/19 21:35
Total Nitrate/Nitrite-N	4.76		0.200	0.0500	mg/L	1		12/19/19 21:35

Batch Information

Analytical Batch: WIC6008
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 12/19/19 21:35
Container ID: 1197446005-C

Prep Batch: WXX13155
Prep Method: METHOD
Prep Date/Time: 12/19/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	2.04		1.02	0.316	mg/L	1		12/23/19 17:39

Batch Information

Analytical Batch: STS6579
Analytical Method: SM21 2540D
Analyst: DMM
Analytical Date/Time: 12/23/19 17:39
Container ID: 1197446005-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500 U		1.00	0.310	mg/L	1		01/08/20 10:10

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 10:10
Container ID: 1197446005-D

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.104		0.100	0.0310	mg/L	1		12/20/19 18:03

Print Date: 01/08/2020 4:49:12PM

J flagging is activated

Results of **DUP1**

Client Sample ID: **DUP1**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446005
Lab Project ID: 1197446

Collection Date: 12/19/19 12:57
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 18:03
Container ID: 1197446005-D

Prep Batch: WXX13158
Prep Method: METHOD
Prep Date/Time: 12/20/19 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.104		0.0200	0.00500	mg/L	1		12/27/19 15:26

Batch Information

Analytical Batch: WDA4709
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 12/27/19 15:26
Container ID: 1197446005-D

Prep Batch: WXX13160
Prep Method: SM21 4500P-B,E
Prep Date/Time: 12/27/19 11:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446006
Lab Project ID: 1197446

Collection Date: 12/19/19 13:16
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

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

Batch Information

Analytical Batch: BOD6499
Analytical Method: SM21 5210B
Analyst: A.L
Analytical Date/Time: 12/19/19 19:15
Container ID: 1197446006-F

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.7		1.67	1.67	col/100mL	1		12/19/19 18:22

Batch Information

Analytical Batch: BTF17839
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 12/19/19 18:22
Container ID: 1197446006-A

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
E. Coli	2		1	1	MPN/100m	1		12/19/19 17:45
Total Coliform	166		1	1	MPN/100m	1		12/19/19 17:45

Batch Information

Analytical Batch: BTF17838
Analytical Method: SM21 9223B
Analyst: ACF
Analytical Date/Time: 12/19/19 17:45
Container ID: 1197446006-B

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446006
Lab Project ID: 1197446

Collection Date: 12/19/19 13:16
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	5.82		0.200	0.0500	mg/L	1		12/19/19 21:54
Nitrite-N	0.100 U		0.200	0.0500	mg/L	1		12/19/19 21:54
Total Nitrate/Nitrite-N	5.87		0.200	0.0500	mg/L	1		12/19/19 21:54

Batch Information

Analytical Batch: WIC6008
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 12/19/19 21:54
Container ID: 1197446006-C

Prep Batch: WXX13155
Prep Method: METHOD
Prep Date/Time: 12/19/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Suspended Solids	5.89		1.11	0.344	mg/L	1		12/23/19 17:39

Batch Information

Analytical Batch: STS6579
Analytical Method: SM21 2540D
Analyst: DMM
Analytical Date/Time: 12/23/19 17:39
Container ID: 1197446006-E

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.346 J		1.00	0.310	mg/L	1		01/08/20 10:11

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 10:11
Container ID: 1197446006-D

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.140		0.100	0.0310	mg/L	1		12/20/19 18:08

Print Date: 01/08/2020 4:49:12PM

J flagging is activated

Results of **SW18**

Client Sample ID: **SW18**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446006
Lab Project ID: 1197446

Collection Date: 12/19/19 13:16
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 18:08
Container ID: 1197446006-D

Prep Batch: WXX13158
Prep Method: METHOD
Prep Date/Time: 12/20/19 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.354		0.0200	0.00500	mg/L	1		12/27/19 15:27

Batch Information

Analytical Batch: WDA4709
Analytical Method: SM21 4500P-B,E
Analyst: DMM
Analytical Date/Time: 12/27/19 15:27
Container ID: 1197446006-D

Prep Batch: WXX13160
Prep Method: SM21 4500P-B,E
Prep Date/Time: 12/27/19 11:20
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 01/08/2020 4:49:12PM

J flagging is activated

Results of **Eff**

Client Sample ID: **Eff**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446007
Lab Project ID: 1197446

Collection Date: 12/19/19 13:30
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	36300		100	100	col/100mL	1		12/19/19 18:22

Batch Information

Analytical Batch: BTF17839
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 12/19/19 18:22
Container ID: 1197446007-A

Results of **Eff**

Client Sample ID: **Eff**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446007
Lab Project ID: 1197446

Collection Date: 12/19/19 13:30
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.100	U	0.200	0.0500	mg/L	1		12/19/19 22:13
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/19/19 22:13
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/19/19 22:13

Batch Information

Analytical Batch: WIC6008
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 12/19/19 22:13
Container ID: 1197446007-B

Prep Batch: WXX13155
Prep Method: METHOD
Prep Date/Time: 12/19/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	48.6		10.0	3.10	mg/L	10		01/08/20 10:13

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 10:13
Container ID: 1197446007-C

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	30.0		1.00	0.310	mg/L	10		12/20/19 18:46

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 18:46
Container ID: 1197446007-C

Prep Batch: WXX13158
Prep Method: METHOD
Prep Date/Time: 12/20/19 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Print Date: 01/08/2020 4:49:12PM

J flagging is activated

Results of **MW10**

Client Sample ID: **MW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446008
Lab Project ID: 1197446

Collection Date: 12/19/19 13:40
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.64	U	1.64	1.64	col/100mL	1		12/19/19 18:22

Batch Information

Analytical Batch: BTF17839
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 12/19/19 18:22
Container ID: 1197446008-A

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

Results of **MW10**

Client Sample ID: **MW10**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446008
Lab Project ID: 1197446

Collection Date: 12/19/19 13:40
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.113	J	0.200	0.0500	mg/L	1		12/19/19 22:32
Nitrite-N	0.100	U	0.200	0.0500	mg/L	1		12/19/19 22:32
Total Nitrate/Nitrite-N	0.159	J	0.200	0.0500	mg/L	1		12/19/19 22:32

Batch Information

Analytical Batch: WIC6008
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 12/19/19 22:32
Container ID: 1197446008-B

Prep Batch: WXX13155
Prep Method: METHOD
Prep Date/Time: 12/19/19 16:00
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		01/08/20 10:14

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 10:14
Container ID: 1197446008-C

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.0500	U	0.100	0.0310	mg/L	1		12/20/19 18:11

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 18:11
Container ID: 1197446008-C

Prep Batch: WXX13158
Prep Method: METHOD
Prep Date/Time: 12/20/19 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Results of **MW15**

Client Sample ID: **MW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446009
Lab Project ID: 1197446

Collection Date: 12/19/19 13:50
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Microbiology Laboratory**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Fecal Coliform	1.67	U	1.67	1.67	col/100mL	1		12/19/19 18:22

Batch Information

Analytical Batch: BTF17839
Analytical Method: SM21 9222D
Analyst: A.L
Analytical Date/Time: 12/19/19 18:22
Container ID: 1197446009-A

Results of **MW15**

Client Sample ID: **MW15**
Client Project ID: **Wasilla WWTP**
Lab Sample ID: 1197446009
Lab Project ID: 1197446

Collection Date: 12/19/19 13:50
Received Date: 12/19/19 16:12
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Waters Department**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Nitrate-N	0.643		0.200	0.0500	mg/L	1		12/19/19 22:51
Nitrite-N	0.171	J	0.200	0.0500	mg/L	1		12/19/19 22:51
Total Nitrate/Nitrite-N	0.814		0.200	0.0500	mg/L	1		12/19/19 22:51

Batch Information

Analytical Batch: WIC6008
Analytical Method: EPA 300.0
Analyst: DMM
Analytical Date/Time: 12/19/19 22:51
Container ID: 1197446009-B

Prep Batch: WXX13155
Prep Method: METHOD
Prep Date/Time: 12/19/19 16:40
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Total Kjeldahl Nitrogen	0.500	U	1.00	0.310	mg/L	1		01/08/20 10:18

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Analyst: EWW
Analytical Date/Time: 01/08/20 10:18
Container ID: 1197446009-C

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 01/07/20 10:31
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Ammonia-N	0.207		0.100	0.0310	mg/L	1		12/20/19 18:13

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Analyst: DMM
Analytical Date/Time: 12/20/19 18:13
Container ID: 1197446009-C

Prep Batch: WXX13158
Prep Method: METHOD
Prep Date/Time: 12/20/19 16:00
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

Method Blank

Blank ID: MB for HBN 1803262 [BOD/6499]
Blank Lab ID: 1547461

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197446001, 1197446003, 1197446004, 1197446005, 1197446006

Results by **SM21 5210B**

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

Batch Information

Analytical Batch: BOD6499
Analytical Method: SM21 5210B
Instrument:
Analyst: A.L
Analytical Date/Time: 12/19/2019 7:15:48PM

Print Date: 01/08/2020 4:49:16PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1197446 [BOD6499]
Blank Spike Lab ID: 1547462
Date Analyzed: 12/19/2019 19:15

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197446001, 1197446003, 1197446004, 1197446005, 1197446006

Results by **SM21 5210B**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Biochemical Oxygen Demand	198	207	105	(84.6-115.4

Batch Information

Analytical Batch: **BOD6499**
Analytical Method: **SM21 5210B**
Instrument:
Analyst: **A.L**

Print Date: 01/08/2020 4:49:18PM

Method Blank

Blank ID: MB for HBN 1803258 [BTF/17838]
Blank Lab ID: 1547454

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197446001, 1197446003, 1197446004, 1197446005, 1197446006

Results by **SM21 9223B**

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

Batch Information

Analytical Batch: BTF17838
Analytical Method: SM21 9223B
Instrument:
Analyst: ACF
Analytical Date/Time: 12/19/2019 5:45:00PM

Print Date: 01/08/2020 4:49:20PM

Method Blank

Blank ID: MB for HBN 1803263 [BTF/17839]
Blank Lab ID: 1547465

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197446001, 1197446002, 1197446003, 1197446004, 1197446005, 1197446006, 1197446007, 1197446008, 1197446009

Results by **SM21 9222D**

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

Batch Information

Analytical Batch: BTF17839
Analytical Method: SM21 9222D
Instrument:
Analyst: A.L
Analytical Date/Time: 12/19/2019 6:22:00PM

Print Date: 01/08/2020 4:49:25PM

Method Blank

Blank ID: MB for HBN 1803329 [STS/6579]
Blank Lab ID: 1547708

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197446001, 1197446003, 1197446004, 1197446005, 1197446006

Results by **SM21 2540D**

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

Batch Information

Analytical Batch: STS6579
Analytical Method: SM21 2540D
Instrument:
Analyst: DMM
Analytical Date/Time: 12/23/2019 5:39:29PM

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Duplicate Sample Summary

Original Sample ID: 1197479001
Duplicate Sample ID: 1547711
Analysis Date: 12/23/2019 17:39
Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1197446001, 1197446003, 1197446004, 1197446005, 1197446006

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	25800	26200	mg/L	1.50	(< 5)

Batch Information

Analytical Batch: STS6579
Analytical Method: SM21 2540D
Instrument:
Analyst: DMM

Print Date: 01/08/2020 4:49:30PM

Duplicate Sample Summary

Original Sample ID: 1197454001
Duplicate Sample ID: 1547712
Analysis Date: 12/23/2019 17:39
Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1197446001, 1197446003, 1197446004, 1197446005, 1197446006

Results by **SM21 2540D**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Suspended Solids	1070	1090	mg/L	1.90	(< 5)

Batch Information

Analytical Batch: STS6579
Analytical Method: SM21 2540D
Instrument:
Analyst: DMM

Print Date: 01/08/2020 4:49:30PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1197446 [STS6579]
Blank Spike Lab ID: 1547709
Date Analyzed: 12/23/2019 17:39

Spike Duplicate ID: LCSD for HBN 1197446 [STS6579]
Spike Duplicate Lab ID: 1547710
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197446001, 1197446003, 1197446004, 1197446005, 1197446006

Results by **SM21 2540D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Suspended Solids	25	24.2	97	25	24.6	98	(75-125)	1.60	(< 5)

Batch Information

Analytical Batch: **STS6579**
Analytical Method: **SM21 2540D**
Instrument:
Analyst: **DMM**

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Method Blank

Blank ID: MB for HBN 1803363 [WXX/13155]
Blank Lab ID: 1547884

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197446001, 1197446002, 1197446003, 1197446004, 1197446005, 1197446006, 1197446007, 1197446008, 1197446009

Results by **EPA 300.0**

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

Batch Information

Analytical Batch: WIC6008
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 12/19/2019 4:31:05PM

Prep Batch: WXX13155
Prep Method: METHOD
Prep Date/Time: 12/19/2019 4:00:00PM
Prep Initial Wt./Vol.: 10 mL
Prep Extract Vol: 10 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1197446 [WXX13155]
Blank Spike Lab ID: 1547885
Date Analyzed: 12/19/2019 16:50

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197446001, 1197446002, 1197446003, 1197446004, 1197446005, 1197446006, 1197446007, 1197446008, 1197446009

Results by **EPA 300.0**

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	5	5.04	101	(90-110)
Nitrite-N	5	5.04	101	(90-110)
Total Nitrate/Nitrite-N	10	10.1	101	(90-110)

Batch Information

Analytical Batch: **WIC6008**
Analytical Method: **EPA 300.0**
Instrument: **930 Metrohm compact IC flex**
Analyst: **DMM**

Prep Batch: **WXX13155**
Prep Method: **METHOD**
Prep Date/Time: **12/19/2019 16:00**
Spike Init Wt./Vol.: 5 mg/L Extract Vol: 10 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1547883
MS Sample ID: 1547886 MS
MSD Sample ID:

Analysis Date: 12/19/2019 17:47
Analysis Date: 12/19/2019 18:06
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197446001, 1197446002, 1197446003, 1197446004, 1197446005, 1197446006, 1197446007, 1197446008, 1197446009

Results by **EPA 300.0**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	0.519	5.00	5.24	94				90-110		
Nitrite-N	0.100U	5.00	4.72	94				90-110		

Batch Information

Analytical Batch: WIC6008
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 12/19/2019 6:06:09PM

Prep Batch: WXX13155
Prep Method: EPA 300.0 Extraction Waters/Liquids
Prep Date/Time: 12/19/2019 4:00:00PM
Prep Initial Wt./Vol.: 10.00mL
Prep Extract Vol: 10.00mL

Matrix Spike Summary

Original Sample ID: 1197446001
MS Sample ID: 1547887 MS
MSD Sample ID:

Analysis Date: 12/19/2019 18:44
Analysis Date: 12/19/2019 19:03
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197446001, 1197446002, 1197446003, 1197446004, 1197446005, 1197446006, 1197446007, 1197446008, 1197446009

Results by **EPA 300.0**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Nitrate-N	0.182J	5.00	4.99	96				90-110		
Nitrite-N	0.100U	5.00	4.69	94				90-110		
Total Nitrate/Nitrite-N	0.231	10.0	9.68	95				90-110		

Batch Information

Analytical Batch: WIC6008
Analytical Method: EPA 300.0
Instrument: 930 Metrohm compact IC flex
Analyst: DMM
Analytical Date/Time: 12/19/2019 7:03:11PM

Prep Batch: WXX13155
Prep Method: EPA 300.0 Extraction Waters/Liquids
Prep Date/Time: 12/19/2019 4:40:00PM
Prep Initial Wt./Vol.: 10.00mL
Prep Extract Vol: 10.00mL

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Method Blank

Blank ID: MB for HBN 1803397 [WXX/13158]
Blank Lab ID: 1548046

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197446001, 1197446002, 1197446003, 1197446004, 1197446005, 1197446006, 1197446007, 1197446008, 1197446009

Results by **SM21 4500-NH3 G**

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

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 12/20/2019 5:48:21PM

Prep Batch: WXX13158
Prep Method: METHOD
Prep Date/Time: 12/20/2019 4:00:00PM
Prep Initial Wt./Vol.: 6 mL
Prep Extract Vol: 6 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1197446 [WXX13158]
Blank Spike Lab ID: 1548047
Date Analyzed: 12/20/2019 17:50

Spike Duplicate ID: LCSD for HBN 1197446 [WXX13158]
Spike Duplicate Lab ID: 1548048
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197446001, 1197446002, 1197446003, 1197446004, 1197446005, 1197446006, 1197446007, 1197446008, 1197446009

Results by **SM21 4500-NH3 G**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	1	1.08	108	1	1.15	115	(75-125)	5.80	(< 25)

Batch Information

Analytical Batch: **WDA4707**
Analytical Method: **SM21 4500-NH3 G**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX13158**
Prep Method: **METHOD**
Prep Date/Time: **12/20/2019 16:00**
Spike Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL
Dupe Init Wt./Vol.: 1 mg/L Extract Vol: 6 mL

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Matrix Spike Summary

Original Sample ID: 1197451001
MS Sample ID: 1548049 MS
MSD Sample ID: 1548050 MSD

Analysis Date: 12/20/2019 18:15
Analysis Date: 12/20/2019 18:16
Analysis Date: 12/20/2019 18:18
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197446001, 1197446002, 1197446003, 1197446004, 1197446005, 1197446006, 1197446007, 1197446008, 1197446009

Results by **SM21 4500-NH3 G**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Ammonia-N	0.147	1.00	1.29	115	1.00	1.29	114	75-125	0.37	(< 25)

Batch Information

Analytical Batch: WDA4707
Analytical Method: SM21 4500-NH3 G
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 12/20/2019 6:16:44PM

Prep Batch: WXX13158
Prep Method: Ammonia by SM21 4500F prep (W)
Prep Date/Time: 12/20/2019 4:00:00PM
Prep Initial Wt./Vol.: 6.00mL
Prep Extract Vol: 6.00mL

Print Date: 01/08/2020 4:49:43PM

Method Blank

Blank ID: MB for HBN 1803403 [WXX/13160]
Blank Lab ID: 1548093

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197446001, 1197446003, 1197446004, 1197446005, 1197446006

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

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

Batch Information

Analytical Batch: WDA4709
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 12/27/2019 2:58:56PM

Prep Batch: WXX13160
Prep Method: SM21 4500P-B,E
Prep Date/Time: 12/27/2019 11:20:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1197446 [WXX13160]
Blank Spike Lab ID: 1548094
Date Analyzed: 12/27/2019 14:59

Spike Duplicate ID: LCSD for HBN 1197446 [WXX13160]
Spike Duplicate Lab ID: 1548095
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197446001, 1197446003, 1197446004, 1197446005, 1197446006

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

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.2	0.189	95	0.2	0.189	95	(75-125)	0.21	(< 25)

Batch Information

Analytical Batch: **WDA4709**
Analytical Method: **SM21 4500P-B,E**
Instrument: **Discrete Analyzer 2**
Analyst: **DMM**

Prep Batch: **WXX13160**
Prep Method: **SM21 4500P-B,E**
Prep Date/Time: **12/27/2019 11:20**
Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1199993008
MS Sample ID: 1548096 MS
MSD Sample ID: 1548097 MSD

Analysis Date: 12/27/2019 15:35
Analysis Date: 12/27/2019 15:38
Analysis Date: 12/27/2019 15:39
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197446001, 1197446003, 1197446004, 1197446005, 1197446006

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

		Matrix Spike (mg/L)				Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Phosphorus	0.0100U	0.200	.149	75	*	0.200	0.150	75	75-125	0.47	(< 25)

Batch Information

Analytical Batch: WDA4709
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: DMM
Analytical Date/Time: 12/27/2019 3:38:19PM

Prep Batch: WXX13160
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 12/27/2019 11:20:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 01/08/2020 4:49:49PM

Method Blank

Blank ID: MB for HBN 1803648 [WXX/13166]
Blank Lab ID: 1548708

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1197446001, 1197446002, 1197446003, 1197446004, 1197446005, 1197446006, 1197446007, 1197446008, 1197446009

Results by **SM21 4500-N D**

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

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: EWW
Analytical Date/Time: 1/8/2020 9:46:53AM

Prep Batch: WXX13166
Prep Method: METHOD
Prep Date/Time: 1/7/2020 10:31:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1197446 [WXX13166]
Blank Spike Lab ID: 1548709
Date Analyzed: 01/08/2020 09:48

Spike Duplicate ID: LCSD for HBN 1197446 [WXX13166]
Spike Duplicate Lab ID: 1548710
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197446001, 1197446002, 1197446003, 1197446004, 1197446005, 1197446006, 1197446007, 1197446008, 1197446009

Results by **SM21 4500-N D**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	4	4.04	101	4	3.91	98	(75-125)	3.40	(< 25)

Batch Information

Analytical Batch: **WDA4714**
Analytical Method: **SM21 4500-N D**
Instrument: **Discrete Analyzer 2**
Analyst: **EWW**

Prep Batch: **WXX13166**
Prep Method: **METHOD**
Prep Date/Time: **01/07/2020 10:31**
Spike Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 4 mg/L Extract Vol: 25 mL

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Matrix Spike Summary

Original Sample ID: 1197408001
MS Sample ID: 1548711 MS
MSD Sample ID: 1548712 MSD

Analysis Date: 01/08/2020 9:50
Analysis Date: 01/08/2020 9:52
Analysis Date: 01/08/2020 9:53
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1197446001, 1197446002, 1197446003, 1197446004, 1197446005, 1197446006, 1197446007, 1197446008, 1197446009

Results by **SM21 4500-N D**

		Matrix Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Total Kjeldahl Nitrogen	2.69	4.00	5.83	79	4.00	5.95	81	75-125	2.00	(< 25)

Batch Information

Analytical Batch: WDA4714
Analytical Method: SM21 4500-N D
Instrument: Discrete Analyzer 2
Analyst: EWW
Analytical Date/Time: 1/8/2020 9:52:08AM

Prep Batch: WXX13166
Prep Method: Distillation TKN by Phenate (W)
Prep Date/Time: 1/7/2020 10:31:00AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 01/08/2020 4:49:55PM

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

Page 1 of 1

Section 1

CLIENT: Stantec
CONTACT: Jake Alward PHONE NO: 343-5202
PROJECT NAME: Wasilla WWTP PROJECT/ PWSID/ PERMIT#:
REPORTS TO: E-MAIL: jake.alward@stantec.com
INVOICE TO: QUOTE #:
P.O. #: 204700415

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Type C = COMP G = GRAB MI = Multi Incre-mental Soils	Preservative:								REMARKS/ LOC ID
							1	1	1	H2SO4		Na2SO4	Na2SO4		
							BOD	TSS	Nitrate/Nitrite	TKN/Ammonia	TKN/Ammonia/TP	FC	FC (Quanti-Tray) 1x10x		
1AG	SW9	12/19/19	1100	Water	6	G	1	1	1		1	1	1		
2AC	B1		1134		3				1	1		1			
3AG	SW15		1214		6		1	1	1		1	1	1		
4AG	SW17		1257		6		1	1	1		1	1	1		
5AG	DUP1		1257		6		1	1	1		1	1	1		
6AG	SW18		1316		6		1	1	1		1	1	1		
7AC	Eff		1330		3				1	1		1			
8AC	MW10		1340		3				1	1		1			
9AC	MW15		1350		3				1	1		1			

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 12/19/19	Time 16:12	Received For Laboratory By:

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 2.5 D62
or Ambient [ ]
(See attached Sample Receipt Form)

Chain of Custody Seal: (Circle)
INTACT BROKEN H.D ABSENT
(See attached Sample Receipt Form)

e-Sample Receipt Form

SGS Workorder #: **1197446**

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		Yes — Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	N/A	Absent
COC accompanied samples?	Yes	
DOD: Were samples received in COC corresponding coolers?	N/A	
	N/A	**Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required
Temperature blank compliant* (i.e., 0-6 °C after CF)?	Yes	Cooler ID: 1 @ 2.5 °C Therm. ID: D62
		Cooler ID: @ °C Therm. ID:
If samples received without a temperature blank, the "cooler temperature" will be documented instead & "COOLER TEMP" will be noted to the right. "ambient" or "chilled" will be noted if neither is available.		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
*If >6°C, were samples collected <8 hours ago?	N/A	
If <0°C, were sample containers ice free?	N/A	
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	Yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	Yes	
**Note: If times differ <1hr, record details & login per COC.		
***Note: If sample information on containers differs from COC, SGS will default to COC information		
Were analytical requests clear? (i.e., method is specified for analyses with multiple option for analysis (Ex: BTEX, Metals)	Yes	
	N/A	***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	Yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	N/A	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	N/A	
Were all soil VOAs field extracted with MeOH+BFB?	N/A	

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

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1197446001-A	Na2S2O3 for Chlorine Redu	OK			
1197446001-B	Na2S2O3 for Chlorine Redu	OK			
1197446001-C	No Preservative Required	OK			
1197446001-D	H2SO4 to pH < 2	OK			
1197446001-E	No Preservative Required	OK			
1197446001-F	No Preservative Required	OK			
1197446002-A	Na2S2O3 for Chlorine Redu	OK			
1197446002-B	No Preservative Required	OK			
1197446002-C	H2SO4 to pH < 2	OK			
1197446003-A	Na2S2O3 for Chlorine Redu	OK			
1197446003-B	Na2S2O3 for Chlorine Redu	OK			
1197446003-C	No Preservative Required	OK			
1197446003-D	H2SO4 to pH < 2	OK			
1197446003-E	No Preservative Required	OK			
1197446003-F	No Preservative Required	OK			
1197446004-A	Na2S2O3 for Chlorine Redu	OK			
1197446004-B	Na2S2O3 for Chlorine Redu	OK			
1197446004-C	No Preservative Required	OK			
1197446004-D	H2SO4 to pH < 2	OK			
1197446004-E	No Preservative Required	OK			
1197446004-F	No Preservative Required	OK			
1197446005-A	Na2S2O3 for Chlorine Redu	OK			
1197446005-B	Na2S2O3 for Chlorine Redu	OK			
1197446005-C	No Preservative Required	OK			
1197446005-D	H2SO4 to pH < 2	OK			
1197446005-E	No Preservative Required	OK			
1197446005-F	No Preservative Required	OK			
1197446006-A	Na2S2O3 for Chlorine Redu	OK			
1197446006-B	Na2S2O3 for Chlorine Redu	OK			
1197446006-C	No Preservative Required	OK			
1197446006-D	H2SO4 to pH < 2	OK			
1197446006-E	No Preservative Required	OK			
1197446006-F	No Preservative Required	OK			
1197446007-A	Na2S2O3 for Chlorine Redu	OK			
1197446007-B	No Preservative Required	OK			
1197446007-C	H2SO4 to pH < 2	OK			
1197446008-A	Na2S2O3 for Chlorine Redu	OK			
1197446008-B	No Preservative Required	OK			
1197446008-C	H2SO4 to pH < 2	OK			
1197446009-A	Na2S2O3 for Chlorine Redu	OK			
1197446009-B	No Preservative Required	OK			
1197446009-C	H2SO4 to pH < 2	OK			

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition

Container Condition Glossary

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

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM - The container was received damaged.
FR - The container was received frozen and not usable for Bacteria or BOD analyses.
IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.
NC- The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
QN - Insufficient sample quantity provided.