

Chemical Analysis Report

SO-DIST-2023-10-27-02

Florida DEP Laboratory
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Tallahassee, FL 32399-2400
DOH Accreditation E31780

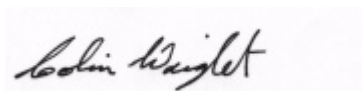
Event Description: **Caloosa Creeks**
Request ID: **RQ-2023-10-09-06**
Customer: **SO-DIST**
Project ID: **BMAP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
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Attn: Thomas Baker

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Certified by: Colin Wright, Program Administrator

Date Certified: 17-NOV-2023 08:48

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light pink rectangular background.

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: ROBERTS CANAL AT SR 80

Collection Date/Time: 10/26/2023 08:45

Field ID: G3SD0146

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2447725	DEP SOP: NU-094-1	Color (true)	89	A	PCU	P437094	
	EPA 180.1 Rev. 2.0	Turbidity	100		NTU	P437098	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P437504	
		Sulfate	26		mg SO4/L	P437508	
	SM 2320 B-2011	Total Alkalinity	169		mg CaCO3/L	P437160	
	SM 2540 C-2015	TDS	285		mg/L	P437566	
	SM 2540 D-2015	TSS	126		mg/L	P437417	
	SM 4500-F- C-2011	Fluoride	0.25		mg F/L	P437164	
2447729	SM 5310 B-2011 dissolved	Organic Carbon	19		mg C/L	P437267	
2447733	EPA 350.1 Rev. 2.0	Ammonia-N	0.031		mg N/L	P437197	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.6		mg N/L	P437122	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.061		mg N/L	P437899	
	EPA 365.1 Rev. 2.0	Total-P	0.46		mg P/L	P437173	
	SM 5310 B-2011	Organic Carbon	21		mg C/L	P437267	
2447737	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.012		mg P/L	P437099	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: ORANGE RIVER AT BOAT RAMP

Collection Date/Time: 10/26/2023 08:00

Field ID: G3SD0128

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2447726	DEP SOP: NU-094-1	Color (true)	39	A	PCU	P437093	
	EPA 180.1 Rev. 2.0	Turbidity	4.5		NTU	P437098	
	EPA 300.0 Rev. 2.1	Chloride	75		mg Cl/L	P437504	
		Sulfate	13		mg SO4/L	P437508	
	SM 2320 B-2011	Total Alkalinity	216	A	mg CaCO3/L	P437160	
	SM 2540 C-2015	TDS	370		mg/L	P437566	
	SM 2540 D-2015	TSS	4	I	mg/L	P437417	
	SM 4500-F- C-2011	Fluoride	0.17		mg F/L	P437164	
2447730	SM 5310 B-2011 dissolved	Organic Carbon	9.5		mg C/L	P437267	
2447734	EPA 350.1 Rev. 2.0	Ammonia-N	0.013		mg N/L	P437197	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.81		mg N/L	P437123	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.084		mg N/L	P437893	
	EPA 365.1 Rev. 2.0	Total-P	0.034		mg P/L	P437173	
	SM 5310 B-2011	Organic Carbon	9.9		mg C/L	P437267	
2447738	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.008	I	mg P/L	P437099	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: NINE MILE CANAL AT SR 80

Collection Date/Time: 10/26/2023 09:35

Field ID: G3SD0088

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2447727	DEP SOP: NU-094-1	Color (true)	200		PCU	P437093	
	EPA 180.1 Rev. 2.0	Turbidity	4.4		NTU	P437098	
	EPA 300.0 Rev. 2.1	Chloride	38		mg Cl/L	P437504	
		Sulfate	16		mg SO4/L	P437508	
	SM 2320 B-2011	Total Alkalinity	78		mg CaCO3/L	P437160	
	SM 2540 C-2015	TDS	188		mg/L	P437566	
	SM 2540 D-2015	TSS	7	I	mg/L	P437417	
	SM 4500-F- C-2011	Fluoride	0.14		mg F/L	P437164	
2447731	SM 5310 B-2011 dissolved	Organic Carbon	22		mg C/L	P437267	
2447735	EPA 350.1 Rev. 2.0	Ammonia-N	0.062		mg N/L	P437197	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P437123	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.077		mg N/L	P437893	
	EPA 365.1 Rev. 2.0	Total-P	0.077		mg P/L	P437173	
	SM 5310 B-2011	Organic Carbon	22		mg C/L	P437267	
2447739	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.042		mg P/L	P437100	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: BEE BRANCH AT LOBLOLLY BAY RD

Collection Date/Time: 10/26/2023 10:25

Field ID: G3SD0085

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2447741	DEP SOP: NU-094-1	Color (true)	230		PCU	P437093	
	EPA 180.1 Rev. 2.0	Turbidity	6.0		NTU	P437098	
	EPA 300.0 Rev. 2.1	Chloride	27		mg Cl/L	P437504	
		Sulfate	10		mg SO4/L	P437508	
	SM 2320 B-2011	Total Alkalinity	16		mg CaCO3/L	P437160	
	SM 2540 C-2015	TDS	135		mg/L	P437566	
	SM 2540 D-2015	TSS	13		mg/L	P437417	
	SM 4500-F- C-2011	Fluoride	0.081	I	mg F/L	P437164	
2447742	SM 5310 B-2011 dissolved	Organic Carbon	26		mg C/L	P437267	
2447743	EPA 350.1 Rev. 2.0	Ammonia-N	0.050		mg N/L	P437197	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P437123	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.090		mg N/L	P437893	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P437173	
	SM 5310 B-2011	Organic Carbon	26		mg C/L	P437267	
2447744	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.055		mg P/L	P437100	
2447750	EPA 8321B	2,4-D	0.0020	U	ug/L	P437027	
		Acesulfame K	0.10	U	ug/L	P437019	
		2,4,5-T	0.0040	U	ug/L	P437027	
		AMPA	0.10	U	ug/L	P437019	
		Acetaminophen	0.0080	U	ug/L	P437027	
		Acetamiprid	0.0020	U	ug/L	P437027	
		Endothall	0.25	U	ug/L	P437019	
		Glufosinate	0.10	U	ug/L	P437019	
		Glyphosate	0.10	U	ug/L	P437019	
		Afidopyropen	0.0020	U	ug/L	P437027	
		Bentazon	8.0E-04	U	ug/L	P437027	
		Sucralose	0.012	I	ug/L	P437019	
		Benzovindiflupyr	0.0020	U	ug/L	P437027	
		Carbamazepine	8.0E-04	U	ug/L	P437027	
		Clothianidin	0.0020	U	ug/L	P437027	
		Dinotefuran	0.0020	U	ug/L	P437027	
		Diuron	0.0020	U	ug/L	P437027	
		Fenuron	0.032	U	ug/L	P437027	
		Fluridone	8.0E-04	U	ug/L	P437027	
		Imazapyr	0.0040	U	ug/L	P437027	
		Hydrocodone	0.0020	U	ug/L	P437027	
		Ibuprofen	0.080	U	ug/L	P437027	
		Imidacloprid	0.019		ug/L	P437027	
		Linuron	0.0040	U	ug/L	P437027	
		Mandestrobin	0.0020	U	ug/L	P437027	
		MCP	0.0020	U	ug/L	P437027	
		Naproxen	0.0080	U	ug/L	P437027	
		Primidone	0.0040	U	ug/L	P437027	

Field ID: G3SD0085

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2447750	EPA 8321B	Pyraclostrobin	0.0020	U	ug/L	P437027	
		Silvex	0.0040	U	ug/L	P437027	
		Thiamethoxam	0.0020	U	ug/L	P437027	
		Tolfenpyrad	0.0020	U	ug/L	P437027	
		Triclopyr	0.0040	U	ug/L	P437027	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: TELEGRAPH CREEK SONDE AT USGS SONDE STATION **Collection Date/Time: 10/26/2023 11:10**

Field ID: G3SD0129

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2447728	DEP SOP: NU-094-1	Color (true)	410		PCU	P437093	
	EPA 180.1 Rev. 2.0	Turbidity	3.3		NTU	P437098	
	EPA 300.0 Rev. 2.1	Chloride	42		mg Cl/L	P437504	
		Sulfate	1.2		mg SO4/L	P437508	
	SM 2320 B-2011	Total Alkalinity	67		mg CaCO3/L	P437160	
	SM 2540 C-2015	TDS	227		mg/L	P437566	
	SM 2540 D-2015	TSS	4	I	mg/L	P437417	
	SM 4500-F- C-2011	Fluoride	0.080	I	mg F/L	P437164	
2447732	SM 5310 B-2011 dissolved	Organic Carbon	41		mg C/L	P437267	
2447736	EPA 350.1 Rev. 2.0	Ammonia-N	0.036		mg N/L	P437197	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P437408	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024		mg N/L	P437893	
	EPA 365.1 Rev. 2.0	Total-P	0.053		mg P/L	P437173	
	SM 5310 B-2011	Organic Carbon	42		mg C/L	P437267	
2447740	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.016		mg P/L	P437100	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P437093

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: DEP SOP: NU-094-1
Batch ID: P437094

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437098

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437504

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437508

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437197

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437122

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437123

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437408

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437893

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437899

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437173

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437099

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437100

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8321B
Batch ID: P437019

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P437027

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B

Batch ID: P437027

Component	Result	Code	Units
Fenuron	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Silvex	0.0040	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P437160

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-2015

Batch ID: P437566

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015

Batch ID: P437417

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011

Batch ID: P437164

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011

Batch ID: P437267

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-2011 dissolved

Batch ID: P437267

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P437093

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	90 - 110

Reference Method: DEP SOP: NU-094-1
Batch ID: P437094

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437098

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437504

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437508

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	105		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437197

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437122

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437123

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	100		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437408

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.4		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437893

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	100		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437899

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	100		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437173

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	105		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437099

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.7		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437100

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	98.4		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P437019

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	130		P	40 - 150
AMPA	98.6		P	40 - 160
Endothall	93.1		P	40 - 160
Glufosinate	101		P	40 - 160
Glyphosate	94.6		P	40 - 160
Sucralose	117		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P437027

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	72.5		P	40 - 150
2,4,5-T	82.3		P	40 - 150
Acetaminophen	88.5		P	30 - 150
Acetamiprid	79.4		P	40 - 150
Afidopyropen	69.4		P	30 - 150
Bentazon	86.1		P	30 - 150
Benzovindiflupyr	81.5		P	40 - 150
Carbamazepine	79.8		P	40 - 150
Clothianidin	88.0		P	40 - 150
Dinotefuran	99.3		P	40 - 150
Diuron	80.8		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P437027

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fenuron	89.9		P	40 - 150
Fluridone	83.6		P	40 - 150
Hydrocodone	90.4		P	40 - 150
Ibuprofen	62.8		P	40 - 150
Imazapyr	83.4		P	40 - 150
Imidacloprid	83.2		P	40 - 150
Linuron	76.9		P	40 - 150
Mandestrobin	86.3		P	40 - 150
MCPP	89.4		P	40 - 150
Naproxen	65.3		P	40 - 150
Primidone	83.6		P	40 - 150
Pyraclostrobin	81.7		P	40 - 150
Silvex	72.0		P	40 - 150
Thiamethoxam	84.8		P	40 - 150
Tolfenpyrad	51.2		P	30 - 150
Triclopyr	86.2		P	40 - 150

Reference Method: SM 2320 B-2011
Batch ID: P437160

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.7		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P437566

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	98.8		P	85 - 115

Reference Method: SM 2540 D-2015
Batch ID: P437417

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	101		P	85 - 115

Reference Method: SM 4500-F- C-2011
Batch ID: P437164

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	103		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P437267

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.3		P	85 - 115

Reference Method: SM 5310 B-2011 dissolved
Batch ID: P437267

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437504

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447474	Chloride	105		P	90 - 110
2447605	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437508

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447474	Sulfate	105		P	90 - 110
2447605	Sulfate	104		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437197

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447765	Ammonia-N	99.0	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437123

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447734	Kjeldahl Nitrogen	94.6	98.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437408

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2448030	Kjeldahl Nitrogen	101	99.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437893

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447617	NO2NO3-N	99.0	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437899

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447733	NO2NO3-N	93.3	96.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437173

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447766	Total-P	102	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437099

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447738	O-Phosphate-P	97.3	97.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437100

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447769	O-Phosphate-P	97.5	99.3	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P437019

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447226	Acesulfame K	146	147	P/P	40 - 150
2447226	AMPA	78.5	80.0	P/P	40 - 160
2447226	Endothall	88.9	86.1	P/P	40 - 160
2447226	Glufosinate	81.2	89.8	P/P	40 - 160
2447226	Glyphosate	90.5	86.7	P/P	40 - 160
2447226	Sucralose	115	117	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P437027

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447187	2,4-D	84.6	69.7	P/P	40 - 150
2447187	2,4,5-T	108	96.8	P/P	40 - 150
2447187	Acetaminophen	85.4	84.3	P/P	30 - 150
2447187	Acetamiprid	75.1	70.2	P/P	40 - 150
2447187	Afidopyrophen	67.1	68.3	P/P	30 - 150
2447187	Bentazon	88.5	71.2	P/P	30 - 150
2447187	Benzovindiflupyr	80.8	75.1	P/P	40 - 150
2447187	Carbamazepine	77.7	72.5	P/P	40 - 150
2447187	Clothianidin	91.2	82.2	P/P	40 - 150
2447187	Dinotefuran	101	94.2	P/P	40 - 150
2447187	Diuron	70.8	67.3	P/P	40 - 150
2447187	Fenuron	81.1	75.0	P/P	40 - 150
2447187	Fluridone	72.9	79.3	P/P	40 - 150
2447187	Hydrocodone	89.1	84.3	P/P	40 - 150
2447187	Ibuprofen	61.2	63.7	P/P	40 - 150
2447187	Imazapyr	93.1	87.1	P/P	40 - 150
2447187	Imidacloprid	92.4	86.8	P/P	40 - 150
2447187	Linuron	63.5	65.4	P/P	40 - 150
2447187	Mandestrobin	84.3	78.2	P/P	40 - 150
2447187	MCPP	98.7	81.3	P/P	40 - 150
2447187	Naproxen	64.5	53.2	P/P	40 - 150
2447187	Primidone	84.0	77.1	P/P	40 - 150
2447187	Pyraclostrobin	80.6	73.4	P/P	40 - 150
2447187	Silvex	83.8	71.0	P/P	40 - 150
2447187	Thiamethoxam	81.7	80.0	P/P	40 - 150
2447187	Tolfenpyrad	55.9	53.3	P/P	30 - 150
2447187	Triclopyr	100	90.6	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P437164

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447726	Fluoride	101	101	P/P	94 - 106

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P437267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447539	Organic Carbon	94.8	97.3	P/P	85 - 115

Reference Method: SM 5310 B-2011 dissolved
Batch ID: P437267

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2447539	Organic Carbon	94.8	97.3	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P437093

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447726	Color (true)	4.35	Sample	P	0 - 20

Reference Method: DEP SOP: NU-094-1
Batch ID: P437094

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447725	Color (true)	1.31	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P437098

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447616	Turbidity	0.851	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437504

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447474	Chloride	0.107	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P437508

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447474	Sulfate	0.377	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P437197

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447765	Ammonia-N	0.403	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447642	Kjeldahl Nitrogen	5.39	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437123

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447734	Kjeldahl Nitrogen	2.77	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437408

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2448030	Kjeldahl Nitrogen	1.44	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437893

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447617	NO2NO3-N	1.01	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437899

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447733	NO2NO3-N	2.78	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437173

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447766	Total-P	2.07	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437099

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447738	O-Phosphate-P	0.189	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437100

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447769	O-Phosphate-P	1.63	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P437019

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447226	Acesulfame K	0.686	Spike	P	0 - 30
2447226	AMPA	1.90	Spike	P	0 - 30
2447226	Endothall	3.27	Spike	P	0 - 30
2447226	Glufosinate	10.0	Spike	P	0 - 30
2447226	Glyphosate	4.28	Spike	P	0 - 30
2447226	Sucralose	1.92	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P437027

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447187	2,4-D	19.3	Spike	P	0 - 30
2447187	2,4,5-T	10.6	Spike	P	0 - 30
2447187	Acetaminophen	1.24	Spike	P	0 - 30
2447187	Acetamiprid	6.68	Spike	P	0 - 30
2447187	Afidopyropen	1.79	Spike	P	0 - 30
2447187	Bentazon	18.5	Spike	P	0 - 30
2447187	Benzovindiflupyr	7.25	Spike	P	0 - 30
2447187	Carbamazepine	6.92	Spike	P	0 - 30
2447187	Clothianidin	10.3	Spike	P	0 - 30
2447187	Dinotefuran	6.65	Spike	P	0 - 30
2447187	Diuron	5.09	Spike	P	0 - 30
2447187	Fenuron	7.77	Spike	P	0 - 30
2447187	Fluridone	8.35	Spike	P	0 - 30
2447187	Hydrocodone	5.44	Spike	P	0 - 30
2447187	Ibuprofen	4.05	Spike	P	0 - 30
2447187	Imazapyr	6.74	Spike	P	0 - 30
2447187	Imidacloprid	6.20	Spike	P	0 - 30
2447187	Linuron	2.85	Spike	P	0 - 30
2447187	Mandestrobin	7.51	Spike	P	0 - 30
2447187	MCPP	19.4	Spike	P	0 - 30
2447187	Naproxen	19.2	Spike	P	0 - 30
2447187	Primidone	8.64	Spike	P	0 - 30
2447187	Pyraclostrobin	9.39	Spike	P	0 - 30
2447187	Silvex	16.4	Spike	P	0 - 30
2447187	Thiamethoxam	2.02	Spike	P	0 - 30
2447187	Tolfenpyrad	4.69	Spike	P	0 - 30
2447187	Triclopyr	10.0	Spike	P	0 - 30

Reference Method: SM 2320 B-2011
Batch ID: P437160

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447726	Total Alkalinity	0.576	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P437566

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447605	TDS	6.00	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P437164

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447726	Fluoride	0.0	Spike	P	0 - 1.9

Quality Assurance Report Precision

Reference Method: SM 5310 B-2011
Batch ID: P437267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447539	Organic Carbon	1.67	Spike	P	0 - 20

Reference Method: SM 5310 B-2011 dissolved
Batch ID: P437267

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2447539	Organic Carbon	1.67	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Surrogates

Lab Sample ID: 2447750
Field Sample ID: G3SD0085

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	66.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	56.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	52.1	P	30 - 160
EPA 8321B	Diuron-d6	39.7	P	30 - 160
EPA 8321B	Endothall-d6	78.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	75.5	P	30 - 160
EPA 8321B	Ibuprofen-d3	56.1	P	30 - 160
EPA 8321B	Primidone-d5	40.4	P	30 - 160
EPA 8321B	Sucralose-d6	100	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A122416

Included Lab Sample IDs: 2447725, 2447726, 2447727, 2447728, 2447741

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.8	99.7	P/P	90 - 110
Color (true)	99.2	98.8	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A122419

Included Lab Sample IDs: 2447725, 2447726, 2447727, 2447728, 2447741

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	100	P/P	95 - 105

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A122420

Included Lab Sample IDs: 2447737, 2447738, 2447739, 2447740, 2447744

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.9	98.6	P/P	90 - 110
O-Phosphate-P	98.9	97.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A122422

Included Lab Sample IDs: 2447750

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	156	150	P/P	60 - 160
Sucralose	111	116	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A122440

Included Lab Sample IDs: 2447750

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	100	94.3	P/P	60 - 160
Endothall	91.5	90.0	P/P	60 - 160
Glufosinate	89.4	93.8	P/P	60 - 160
Glyphosate	96.4	93.9	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A122444

Included Lab Sample IDs: 2447725, 2447726, 2447727, 2447728, 2447741

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.0	97.1	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A122444

Included Lab Sample IDs: 2447725, 2447726, 2447727, 2447728, 2447741

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A122464

Included Lab Sample IDs: 2447733, 2447734, 2447735, 2447736, 2447743

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.6	98.8	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122471

Included Lab Sample IDs: 2447733, 2447735, 2447743

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.4	97.8	P/P	90 - 110
Total-P	98.7	96.4	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A122489

Included Lab Sample IDs: 2447750

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	87.0	76.4	P/P	50 - 150
2,4,5-T	79.4	81.9	P/P	50 - 150
Acetaminophen	106	101	P/P	60 - 160
Acetamiprid	106	104	P/P	50 - 150
Afidopyropen	119	95.8	P/P	50 - 150
Bentazon	99.2	96.2	P/P	50 - 160
Benzovindiflupyr	106	107	P/P	50 - 150
Carbamazepine	97.4	97.8	P/P	60 - 150
Clothianidin	107	104	P/P	60 - 150
Dinotefuran	114	113	P/P	50 - 150
Diuron	117	110	P/P	60 - 160
Fenuron	109	107	P/P	60 - 150
Fluridone	117	112	P/P	60 - 160
Hydrocodone	114	116	P/P	60 - 150
Ibuprofen	108	86.0	P/P	50 - 160
Imazapyr	98.5	88.6	P/P	50 - 150
Imidacloprid	99.8	98.6	P/P	60 - 150
Linuron	106	95.1	P/P	60 - 150
Mandestrobin	107	101	P/P	50 - 150
MCPP	89.2	84.7	P/P	50 - 150
Naproxen	89.2	77.8	P/P	50 - 160
Primidone	94.5	99.0	P/P	60 - 150
Pyraclostrobin	115	113	P/P	60 - 150
Silvex	85.2	86.5	P/P	50 - 150
Thiamethoxam	112	114	P/P	50 - 150
Tolfenpyrad	105	111	P/P	60 - 150
Triclopyr	82.6	85.1	P/P	50 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122491

Included Lab Sample IDs: 2447734, 2447736

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	101	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A122507

Included Lab Sample IDs: 2447733, 2447734, 2447735, 2447736, 2447743

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.4	96.6	P/P	90 - 110
Organic Carbon	96.6	96.4	P/P	90 - 110

Reference Method: SM 5310 B-2011 dissolved

Run ID: A122507

Included Lab Sample IDs: 2447729, 2447730, 2447731, 2447732, 2447742

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.4	96.6	P/P	90 - 110
Organic Carbon	96.6	96.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122525

Included Lab Sample IDs: 2447734, 2447735, 2447743

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	109	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122585

Included Lab Sample IDs: 2447733

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	91.9	92.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122601

Included Lab Sample IDs: 2447736

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	90.4	95.7	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A122610

Included Lab Sample IDs: 2447725, 2447726, 2447727, 2447728, 2447741

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	102	102	P/P	90 - 110
Sulfate	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122766

Included Lab Sample IDs: 2447733, 2447734, 2447735, 2447736, 2447743

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110
NO2NO3-N	99.5	99.0	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	100				4.35	
	Color (true)	101				1.31	
EPA 180.1 Rev. 2.0	Turbidity	104				0.851	
EPA 300.0 Rev. 2.1	Chloride	104	105	104		0.107	
	Sulfate	105	105	104		0.377	
EPA 350.1 Rev. 2.0	Ammonia-N	97.8	99.0	99.4			0.403
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	98.4					5.39
	Kjeldahl Nitrogen	100	94.6	98.5			2.77
	Kjeldahl Nitrogen	99.4	101	99.3			1.44
EPA 353.2 Rev. 2.0	NO2NO3-N	100	99.0	100			1.01
	NO2NO3-N	100	93.3	96.8			2.78
EPA 365.1 Rev. 2.0	Total-P	105	102	105			2.07
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	98.7	97.3	97.5			0.189
	O-Phosphate-P	98.4	97.5	99.3			1.63
EPA 8321B	2,4-D	72.5	84.6	69.7			19.3
	2,4,5-T	82.3	108	96.8			10.6
	Acesulfame K	130	146	147			0.686
	Acetaminophen	88.5	85.4	84.3			1.24
	Acetamiprid	79.4	75.1	70.2			6.68
	Afidopyropen	69.4	67.1	68.3			1.79
	AMPA	98.6	78.5	80.0			1.90
	Bentazon	86.1	88.5	71.2			18.5
	Benzovindiflupyr	81.5	80.8	75.1			7.25
	Carbamazepine	79.8	77.7	72.5			6.92
	Clothianidin	88.0	91.2	82.2			10.3
	Dinotefuran	99.3	101	94.2			6.65
	Diuron	80.8	70.8	67.3			5.09
	Endothall	93.1	88.9	86.1			3.27
	Fenuron	89.9	81.1	75.0			7.77
	Fluridone	83.6	72.9	79.3			8.35
	Glufosinate	101	81.2	89.8			10.0
	Glyphosate	94.6	90.5	86.7			4.28
	Hydrocodone	90.4	89.1	84.3			5.44
	Ibuprofen	62.8	61.2	63.7			4.05
	Imazapyr	83.4	93.1	87.1			6.74
	Imidacloprid	83.2	92.4	86.8			6.20
	Linuron	76.9	63.5	65.4			2.85
	Mandestrobin	86.3	84.3	78.2			7.51
	MCPP	89.4	98.7	81.3			19.4
	Naproxen	65.3	64.5	53.2			19.2
	Primidone	83.6	84.0	77.1			8.64
	Pyraclostrobin	81.7	80.6	73.4			9.39
	Silvex	72.0	83.8	71.0			16.4
	Sucralose	117	115	117			1.92
	Thiamethoxam	84.8	81.7	80.0			2.02
	Tolfenpyrad	51.2	55.9	53.3			4.69
	Triclopyr	86.2	100	90.6			10.0
SM 2320 B-2011	Total Alkalinity	98.7				0.576	
SM 2540 C-2015	TDS	98.8				6.00	
SM 2540 D-2015	TSS	101					
SM 4500-F- C-2011	Fluoride	103	101	101			0.0
SM 5310 B-2011	Organic Carbon	95.3	94.8	97.3			1.67
SM 5310 B-2011 dissolved	Organic Carbon	95.3	94.8	97.3			1.67

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2447725, 2447726, 2447727, 2447728, 2447741
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2447725, 2447726, 2447727, 2447728, 2447741
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2447725, 2447726, 2447727, 2447728, 2447741
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2447725, 2447726, 2447727, 2447728, 2447741
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2447733, 2447734, 2447735, 2447736, 2447743
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2447733, 2447734, 2447735, 2447736, 2447743
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2447733, 2447734, 2447735, 2447736, 2447743
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2447733, 2447734, 2447735, 2447736, 2447743
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2447737, 2447738, 2447739, 2447740, 2447744
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2447750
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2447725, 2447726, 2447727, 2447728, 2447741
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2447725, 2447726, 2447727, 2447728, 2447741
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2447725, 2447726, 2447727, 2447728, 2447741
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2447725, 2447726, 2447727, 2447728, 2447741
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2447733, 2447734, 2447735, 2447736, 2447743
SM 5310 B-2011 dissolved	Dissolved Nonpurgeable Organic Carbon in filtered, aqueous matrices	2447729, 2447730, 2447731, 2447732, 2447742

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	10/27/2023			10/27/2023 14:56	Chandler E Cox	2447726
	10/27/2023			10/27/2023 14:57	Chandler E Cox	2447727, 2447728
	10/27/2023			10/27/2023 14:58	Chandler E Cox	2447741
	10/27/2023			10/27/2023 15:05	Chandler E Cox	2447725
	10/27/2023			10/27/2023 13:58	Samantha L Bates	2447726
EPA 180.1 Rev. 2.0	10/27/2023			10/27/2023 14:00	Samantha L Bates	2447727
	10/27/2023			10/27/2023 14:01	Samantha L Bates	2447728
	10/27/2023			10/27/2023 14:02	Samantha L Bates	2447741
	10/27/2023			10/27/2023 14:15	Samantha L Bates	2447725
	10/27/2023			11/07/2023 17:41	James L Waggeberby	2447725
EPA 300.0 Rev. 2.1	10/27/2023			11/07/2023 17:56	James L Waggeberby	2447726
	10/27/2023			11/07/2023 18:11	James L Waggeberby	2447727
	10/27/2023			11/07/2023 18:26	James L Waggeberby	2447728
	10/27/2023			11/07/2023 18:42	James L Waggeberby	2447741
	10/27/2023			10/31/2023 13:21	Ping Hua	2447733
EPA 350.1 Rev. 2.0	10/27/2023			10/31/2023 13:23	Ping Hua	2447734
	10/27/2023			10/31/2023 13:25	Ping Hua	2447735
	10/27/2023			10/31/2023 13:26	Ping Hua	2447736
	10/27/2023			10/31/2023 13:27	Ping Hua	2447743
	10/27/2023	10/30/2023 13:30	Simonne.V. Calhoun	11/01/2023 15:39	Samantha L Bates	2447733
EPA 351.2 Rev. 2.0	10/27/2023	10/30/2023 13:30	Simonne.V. Calhoun	11/02/2023 15:36	Ping Hua	2447734
	10/27/2023	10/30/2023 13:30	Simonne.V. Calhoun	11/02/2023 15:41	Ping Hua	2447735
	10/27/2023	10/30/2023 13:30	Simonne.V. Calhoun	11/02/2023 15:44	Ping Hua	2447743
	10/27/2023	11/06/2023 11:56	Simonne.V. Calhoun	11/07/2023 13:11	Samantha L Bates	2447736
	10/27/2023			11/15/2023 13:27	Fadila Guebre	2447734
EPA 353.2 Rev. 2.0	10/27/2023			11/15/2023 13:28	Fadila Guebre	2447735
	10/27/2023			11/15/2023 13:29	Fadila Guebre	2447736
	10/27/2023			11/15/2023 13:30	Fadila Guebre	2447743
	10/27/2023			11/15/2023 15:23	Fadila Guebre	2447733
	10/27/2023	10/31/2023 12:07	Adam P Silver	10/31/2023 15:44	James L Waggeberby	2447733
EPA 365.1 Rev. 2.0	10/27/2023	10/31/2023 12:07	Adam P Silver	10/31/2023 15:46	James L Waggeberby	2447735
	10/27/2023	10/31/2023 12:07	Adam P Silver	10/31/2023 15:49	James L Waggeberby	2447743
	10/27/2023	10/31/2023 12:07	Adam P Silver	11/01/2023 12:57	Chandler E Cox	2447734
	10/27/2023	10/31/2023 12:07	Adam P Silver	11/01/2023 12:58	Chandler E Cox	2447736
	10/27/2023			10/27/2023 16:22	Elise M. Gillis	2447738
EPA 365.1 Rev. 2.0 dissolved	10/27/2023			10/27/2023 16:26	Elise M. Gillis	2447737
	10/27/2023			10/27/2023 16:37	Elise M. Gillis	2447739
	10/27/2023			10/27/2023 16:38	Elise M. Gillis	2447740
	10/27/2023			10/27/2023 16:39	Elise M. Gillis	2447744
	10/27/2023	10/27/2023 14:00	Hana Lee	10/27/2023 22:27	Tae K Lee	2447750

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	10/27/2023	10/27/2023 14:00	Hana Lee	10/30/2023 16:54	Tae K Lee	2447750
	10/27/2023	10/31/2023 09:00	Hoor Shaik	11/01/2023 00:20	Juyoung Kim	2447750
SM 2320 B-2011	10/27/2023			10/31/2023 06:37	Adam P Silver	2447726
	10/27/2023			10/31/2023 07:10	Adam P Silver	2447725
	10/27/2023			10/31/2023 07:23	Adam P Silver	2447727
	10/27/2023			10/31/2023 07:37	Adam P Silver	2447728
	10/27/2023			10/31/2023 07:50	Adam P Silver	2447741
SM 2540 C-2015	10/27/2023			10/31/2023 14:50	Yijie Li	2447725, 2447726, 2447727, 2447728, 2447741
SM 2540 D-2015	10/27/2023			10/31/2023 14:50	Yijie Li	2447725, 2447726, 2447727, 2447728, 2447741
SM 4500-F- C-2011	10/27/2023			10/31/2023 06:26	Adam P Silver	2447726
	10/27/2023			10/31/2023 07:10	Adam P Silver	2447725
	10/27/2023			10/31/2023 07:23	Adam P Silver	2447727
	10/27/2023			10/31/2023 07:37	Adam P Silver	2447728
	10/27/2023			10/31/2023 07:50	Adam P Silver	2447741
SM 5310 B-2011	10/27/2023			11/02/2023 00:02	Elise M. Gillis	2447733
	10/27/2023			11/02/2023 00:29	Elise M. Gillis	2447734
	10/27/2023			11/02/2023 00:57	Elise M. Gillis	2447735
	10/27/2023			11/02/2023 01:25	Elise M. Gillis	2447736
	10/27/2023			11/02/2023 02:20	Elise M. Gillis	2447743
SM 5310 B-2011 dissolved	10/27/2023			11/02/2023 00:16	Elise M. Gillis	2447729
	10/27/2023			11/02/2023 00:43	Elise M. Gillis	2447730
	10/27/2023			11/02/2023 01:11	Elise M. Gillis	2447731
	10/27/2023			11/02/2023 02:06	Elise M. Gillis	2447732
	10/27/2023			11/02/2023 02:33	Elise M. Gillis	2447742