

Chemical Analysis Report

NW-DIST-2018-10-16-01

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Bayou Chico BMAP Source Blank**
Request ID: **RQ-2018-09-17-09**
Customer: **NW-DIST**
Project ID: **BMAP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 308
Pensacola, FL 32502-5794
Attn: Cheryl Bunch

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Certified by: Colin Wright, Program Administrator

Date Certified: 05-NOV-2018 11:35

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray 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 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: Equipment Blank

Collection Date/Time: 10/15/2018 13:45

Field ID: BMAP_EB

Matrix: W-EQPMT-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2032868	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P353456	
2032869	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P353702	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P353384	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P353219	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P353288	
2032875	EPA 8321B	2,4-D	0.0020	U	ug/L	P353085	
		Bentazon	8.0E-04	U	ug/L	P353085	
		MCP	0.0020	U	ug/L	P353085	
		Triclopyr**	0.0040	U	ug/L	P353085	
		Imidacloprid	0.0020	U	ug/L	P353085	
		Diuron	0.0020	U	ug/L	P353085	
		Pyraclostrobin**	0.0020	U	ug/L	P353085	
		Primidone**	0.0040	U	ug/L	P353085	
		Linuron	0.0040	U	ug/L	P353085	
		Acetaminophen**	0.0080	U	ug/L	P353085	
		Fenuron	0.016	U	ug/L	P353085	
		Imazapyr**	0.0040	U	ug/L	P353085	
		Carbamazepine**	8.0E-04	U	ug/L	P353085	
		Fluridone**	4.0E-04	U	ug/L	P353085	
		Hydrocodone**	8.0E-04	U	ug/L	P353085	
		Naproxen**	0.0080	U	ug/L	P353085	
		Ibuprofen**	0.020	U	ug/L	P353085	
		Sucralose**	0.010	U	ug/L	P353202	
		Acesulfame K**	0.10	U	ug/L	P353202	

Ref. Method and Comment:

EPA 8321B: MS accuracy and precision for bentazon, and accuracy for fluridone and imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Jones Creek Upstream of New Warrington Rd Collection Date/Time: 10/15/2018 13:30

Field ID: 33020117

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2032854	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P353456	
2032857	EPA 350.1 Rev. 2.0	Ammonia-N	0.040		mg N/L	P353849	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P353384	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P353218	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P353288	
2032872	EPA 8321B	2,4-D	0.0020	U	ug/L	P353085	
		Bentazon	8.0E-04	U	ug/L	P353085	
		MCP	0.0020	U	ug/L	P353085	
		Triclopyr**	0.0040	U	ug/L	P353085	
		Imidacloprid	0.0027	I	ug/L	P353085	
		Diuron	0.0020	U	ug/L	P353085	
		Pyraclostrobin**	0.0020	U	ug/L	P353085	
		Primidone**	0.0040	U	ug/L	P353085	
		Linuron	0.0040	U	ug/L	P353085	
		Acetaminophen**	0.0080	U	ug/L	P353085	
		Fenuron	0.016	U	ug/L	P353085	
		Imazapyr**	0.010	I	ug/L	P353085	
		Carbamazepine**	8.0E-04	U	ug/L	P353085	
		Fluridone**	4.0E-04	U	ug/L	P353085	
		Hydrocodone**	8.0E-04	U	ug/L	P353085	
		Naproxen**	0.0080	U	ug/L	P353085	
		Ibuprofen**	0.020	U	ug/L	P353085	
		Sucralose**	0.23		ug/L	P353138	
		Acesulfame K**	0.16	I	ug/L	P353138	

Ref. Method and Comment:

EPA 8321B: MS accuracy and precision for bentazon, and accuracy for fluridone and imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Jones Creek Upstream of New Warrington Rd Collection Date/Time: 10/15/2018 13:35

Field ID: 33020117 DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2032855	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P353456	
2032858	EPA 350.1 Rev. 2.0	Ammonia-N	0.041		mg N/L	P353849	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.60		mg N/L	P353384	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.11		mg N/L	P353218	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P353288	
2032873	EPA 8321B	2,4-D	0.0020	U	ug/L	P353085	
		Bentazon	8.0E-04	U	ug/L	P353085	
		MCP	0.0020	U	ug/L	P353085	
		Triclopyr**	0.0040	U	ug/L	P353085	
		Imidacloprid	0.0024	I	ug/L	P353085	
		Diuron	0.0020	U	ug/L	P353085	
		Pyraclostrobin**	0.0020	U	ug/L	P353085	
		Primidone**	0.0040	U	ug/L	P353085	
		Linuron	0.0040	U	ug/L	P353085	
		Acetaminophen**	0.0080	U	ug/L	P353085	
		Fenuron	0.016	U	ug/L	P353085	
		Imazapyr**	0.0093	I	ug/L	P353085	
		Carbamazepine**	8.0E-04	U	ug/L	P353085	
		Fluridone**	4.0E-04	U	ug/L	P353085	
		Hydrocodone**	8.0E-04	U	ug/L	P353085	
		Naproxen**	0.0080	U	ug/L	P353085	
		Ibuprofen**	0.020	U	ug/L	P353085	
		Sucralose**	0.22		ug/L	P353138	
		Acesulfame K**	0.16	I	ug/L	P353138	

Ref. Method and Comment:

EPA 8321B: MS accuracy and precision for bentazon, and accuracy for fluridone and imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Jackson Creek at Old Corry Road

Collection Date/Time: 10/15/2018 12:30

Field ID: 33020221

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2032856	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P353456	
2032859	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P353849	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.21		mg N/L	P353384	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.7		mg N/L	P353218	
	EPA 365.1 Rev. 2.0	Total-P	0.024		mg P/L	P353288	
2032874	EPA 8321B	2,4-D	0.0020	U	ug/L	P353085	
		Bentazon	8.0E-04	U	ug/L	P353085	
		MCP	0.0020	U	ug/L	P353085	
		Triclopyr**	0.0040	U	ug/L	P353085	
		Imidacloprid	0.037		ug/L	P353085	
		Diuron	0.0020	U	ug/L	P353085	
		Pyraclostrobin**	0.0020	U	ug/L	P353085	
		Primidone**	0.0040	U	ug/L	P353085	
		Linuron	0.0040	U	ug/L	P353085	
		Acetaminophen**	0.0080	U	ug/L	P353085	
		Fenuron	0.016	U	ug/L	P353085	
		Imazapyr**	0.0059	I	ug/L	P353085	
		Carbamazepine**	0.032		ug/L	P353085	
		Fluridone**	4.0E-04	U	ug/L	P353085	
		Hydrocodone**	8.0E-04	U	ug/L	P353085	
		Naproxen**	0.0080	U	ug/L	P353085	
		Ibuprofen**	0.020	U	ug/L	P353085	
		Sucralose**	2.2		ug/L	P353202	
		Acesulfame K**	0.10	U	ug/L	P353202	

Ref. Method and Comment:

EPA 8321B: MS accuracy and precision for bentazon, and accuracy for fluridone and imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Bayou Chico at W St. Bridge

Collection Date/Time: 10/15/2018 15:25

Field ID: 33020JF1

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2032850	EPA 180.1 Rev. 2.0	Turbidity	6.4	A	NTU	P353455	
2032852	EPA 350.1 Rev. 2.0	Ammonia-N	0.052		mg N/L	P353417	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.57		mg N/L	P353485	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.1		mg N/L	P353193	
	EPA 365.1 Rev. 2.0	Total-P	0.059		mg P/L	P353292	
2032870	EPA 8321B	2,4-D	0.0020	U	ug/L	P353085	
		Bentazon	8.0E-04	U	ug/L	P353085	
		MCP	0.0020	U	ug/L	P353085	
		Triclopyr**	0.0040	U	ug/L	P353085	
		Imidacloprid	0.040		ug/L	P353085	
		Diuron	0.0020	U	ug/L	P353085	
		Pyraclostrobin**	0.0020	U	ug/L	P353085	
		Primidone**	0.0040	U	ug/L	P353085	
		Linuron	0.0040	U	ug/L	P353085	
		Acetaminophen**	0.0080	U	ug/L	P353085	
		Fenuron	0.016	U	ug/L	P353085	
		Imazapyr**	0.0084	I	ug/L	P353085	
		Carbamazepine**	0.0053		ug/L	P353085	
		Fluridone**	4.0E-04	U	ug/L	P353085	
		Hydrocodone**	8.0E-04	U	ug/L	P353085	
		Naproxen**	0.0080	U	ug/L	P353085	
		Ibuprofen**	0.024	I	ug/L	P353085	
		Sucralose**	0.56		ug/L	P353138	
		Acesulfame K**	0.10	I	ug/L	P353138	

Ref. Method and Comment:

EPA 8321B: MS accuracy and precision for bentazon, and accuracy for fluridone and imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Bayou Chico at Navy Blvd Bridge

Collection Date/Time: 10/15/2018 15:00

Field ID: 3302JE20

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2032851	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P353456	
2032853	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P353417	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.38	I	mg N/L	P353485	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.58		mg N/L	P353193	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P353292	
2032871	EPA 8321B	2,4-D	0.0020	U	ug/L	P353085	
		Bentazon	8.0E-04	U	ug/L	P353085	
		MCP	0.0020	U	ug/L	P353085	
		Triclopyr**	0.0040	U	ug/L	P353085	
		Imidacloprid	0.011		ug/L	P353085	
		Diuron	0.0020	U	ug/L	P353085	
		Pyraclostrobin**	0.0020	U	ug/L	P353085	
		Primidone**	0.0040	U	ug/L	P353085	
		Linuron	0.0040	U	ug/L	P353085	
		Acetaminophen**	0.0080	U	ug/L	P353085	
		Fenuron	0.016	U	ug/L	P353085	
		Imazapyr**	0.0073	I	ug/L	P353085	
		Carbamazepine**	0.0056		ug/L	P353085	
		Fluridone**	4.0E-04	U	ug/L	P353085	
		Hydrocodone**	8.0E-04	U	ug/L	P353085	
		Naproxen**	0.0080	U	ug/L	P353085	
		Ibuprofen**	0.020	U	ug/L	P353085	
		Sucralose**	0.55		ug/L	P353138	
		Acesulfame K**	0.10	U	ug/L	P353138	

Ref. Method and Comment:

EPA 8321B: MS accuracy and precision for bentazon, and accuracy for fluridone and imazapyr could not be assessed due to high concentration of parameter in the spiked sample.

Sample Location: Pensacola Bay at Sanders Beach

Collection Date/Time: 10/15/2018 11:00

Field ID: 33020J10

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2032860	EPA 180.1 Rev. 2.0	Turbidity	1.5		NTU	P353456	
2032861	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P353417	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.34	I	mg N/L	P353485	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.041		mg N/L	P353193	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P353292	

Sample Location: Jones Creek at Old Corry Road

Collection Date/Time: 10/15/2018 11:55

Field ID: 33020118

Matrix: W-BRACKISH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2032862	EPA 180.1 Rev. 2.0	Turbidity	3.1	A	NTU	P353456	
2032864	EPA 350.1 Rev. 2.0	Ammonia-N	0.043		mg N/L	P353849	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P353384	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P353219	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P353288	

Sample Location: Bayou Chico at Mandalay Drive

Collection Date/Time: 10/15/2018 11:20

Field ID: 33020JD4

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2032863	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P353456	
2032865	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P353417	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.47		mg N/L	P353485	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.052		mg N/L	P353193	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P353292	

Sample Location: Jackson Creek at New Warrington Road

Collection Date/Time: 10/15/2018 13:05

Field ID: 33020222

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2032866	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P353456	
2032867	EPA 350.1 Rev. 2.0	Ammonia-N	0.020		mg N/L	P353849	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.21		mg N/L	P353384	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.6		mg N/L	P353219	
	EPA 365.1 Rev. 2.0	Total-P	0.025		mg P/L	P353288	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P353455

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P353456

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353417

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353702

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353849

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353384

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353485

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353193

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353218

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353219

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353288

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353292

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

Reference Method: EPA 8321B
Batch ID: P353085

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	4.0E-04	U	ug/L
Hydrocodone	8.0E-04	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	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
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B
Batch ID: P353138

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P353202

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353417

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353702

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353849

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.3		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353384

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353485

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	96.2		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353193

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353218

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: P353219

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: P353288

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353292

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

Reference Method: EPA 8321B
Batch ID: P353085

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	83.9		P	40 - 150
Acetaminophen	79.3		P	30 - 150
Bentazon	99.5		P	30 - 150
Carbamazepine	70.3		P	40 - 150
Diuron	64.8		P	40 - 150
Fenuron	87.2		P	40 - 150
Fluridone	89.3		P	40 - 150
Hydrocodone	80.9		P	40 - 150
Ibuprofen	57.7		P	40 - 150
Imazapyr	78.9		P	40 - 150
Imidacloprid	69.2		P	40 - 160
Linuron	63.2		P	40 - 150
MCPP	85.2		P	40 - 150
Naproxen	76.2		P	40 - 150
Primidone	80.1		P	40 - 150
Pyraclostrobin	60.5		P	40 - 150
Triclopyr	78.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P353138

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	102		P	40 - 150
Sucralose	83.6		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P353202

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	107		P	40 - 150
Sucralose	84.4		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353417

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031273	Ammonia-N	103	104	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032383	Ammonia-N	98.3	97.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353849

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032867	Ammonia-N	97.9	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353384

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032867	Kjeldahl Nitrogen	100	91.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353485

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032853	Kjeldahl Nitrogen	90.8	94.9	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353193

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2031943	NO2NO3-N	100	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353218

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032786	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353219

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032864	NO2NO3-N	98.5	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353288

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032867	Total-P	100	96.0	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353292

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2032861	Total-P	100	95.6	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P353085

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033413	2,4-D	115	128	P/P	40 - 150
2033413	Acetaminophen	78.5	81.9	P/P	30 - 150
2033413	Carbamazepine	57.9	58.0	P/P	40 - 150
2033413	Diuron	55.6	51.8	P/P	40 - 150
2033413	Fenuron	72.7	71.5	P/P	40 - 150
2033413	Hydrocodone	75.9	74.2	P/P	40 - 150
2033413	Ibuprofen	73.2	55.1	P/P	40 - 150
2033413	Imidacloprid	128	126	P/P	40 - 160
2033413	Linuron	52.4	47.9	P/P	40 - 150
2033413	MCCP	127	139	P/P	40 - 150
2033413	Naproxen	88.9	99.4	P/P	40 - 150
2033413	Primidone	75.1	74.2	P/P	40 - 150
2033413	Pyraclostrobin	69.1	71.3	P/P	40 - 150
2033413	Triclopyr	128	139	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P353138

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033307	Acesulfame K	107	108	P/P	40 - 150
2033307	Sucralose	88.6	87.6	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P353202

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2033274	Acesulfame K	59.0	62.3	P/P	40 - 150
2033274	Sucralose	81.3	93.2	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P353455

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032850	Turbidity	11.1	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P353456

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032862	Turbidity	1.94	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353417

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031273	Ammonia-N	1.23	Spike	P	0 - 15

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032383	Ammonia-N	0.291	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P353849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032867	Ammonia-N	1.37	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353384

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032867	Kjeldahl Nitrogen	7.94	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P353485

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032853	Kjeldahl Nitrogen	3.75	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353193

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2031943	NO2NO3-N	0.336	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353218

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032786	NO2NO3-N	0.980	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P353219

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032864	NO2NO3-N	0.615	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353288

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032867	Total-P	3.91	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P353292

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2032861	Total-P	4.38	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P353085

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033413	2,4-D	8.17	Spike	P	0 - 30
2033413	Acetaminophen	4.22	Spike	P	0 - 30
2033413	Carbamazepine	0.176	Spike	P	0 - 30
2033413	Diuron	5.94	Spike	P	0 - 30
2033413	Fenuron	1.78	Spike	P	0 - 30
2033413	Fluridone	2.62	Spike	P	0 - 30
2033413	Hydrocodone	2.32	Spike	P	0 - 30
2033413	Ibuprofen	28.3	Spike	P	0 - 30
2033413	Imazapyr	8.77	Spike	P	0 - 30
2033413	Imidacloprid	0.864	Spike	P	0 - 30
2033413	Linuron	9.10	Spike	P	0 - 30
2033413	MCP	8.51	Spike	P	0 - 30
2033413	Naproxen	11.2	Spike	P	0 - 30
2033413	Primidone	1.14	Spike	P	0 - 30
2033413	Pyraclostrobin	3.06	Spike	P	0 - 30
2033413	Triclopyr	8.06	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P353138

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033307	Acesulfame K	0.807	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P353138

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033307	Sucralose	1.11	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P353202

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2033274	Acesulfame K	5.51	Spike	P	0 - 30
2033274	Sucralose	11.7	Spike	P	0 - 30

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 2032870
Field Sample ID: 33020JF1

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	156	P	30 - 160
EPA 8321B	Acetaminophen-d4	117	P	30 - 160
EPA 8321B	Carbamazepine-d10	77.1	P	30 - 160
EPA 8321B	Diuron-d6	74.6	P	30 - 160
EPA 8321B	Endothall-d6	71.9	P	40 - 160
EPA 8321B	Ibuprofen-d3	77.3	P	30 - 160
EPA 8321B	Primidone-d5	86.9	P	30 - 160
EPA 8321B	Sucralose-d6	119	P	40 - 160

Lab Sample ID: 2032871
Field Sample ID: 3302JE20

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	114	P	30 - 160
EPA 8321B	Acetaminophen-d4	133	P	30 - 160
EPA 8321B	Carbamazepine-d10	90.6	P	30 - 160
EPA 8321B	Diuron-d6	88.2	P	30 - 160
EPA 8321B	Endothall-d6	70.6	P	40 - 160
EPA 8321B	Ibuprofen-d3	54.9	P	30 - 160
EPA 8321B	Primidone-d5	115	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	40 - 160

Lab Sample ID: 2032872
Field Sample ID: 33020117

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	120	P	30 - 160
EPA 8321B	Acetaminophen-d4	114	P	30 - 160
EPA 8321B	Carbamazepine-d10	71.8	P	30 - 160
EPA 8321B	Diuron-d6	72.4	P	30 - 160
EPA 8321B	Endothall-d6	88.9	P	40 - 160
EPA 8321B	Ibuprofen-d3	76.4	P	30 - 160
EPA 8321B	Primidone-d5	104	P	30 - 160
EPA 8321B	Sucralose-d6	126	P	40 - 160

Lab Sample ID: 2032873
Field Sample ID: 33020117 DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	115	P	30 - 160
EPA 8321B	Acetaminophen-d4	142	P	30 - 160
EPA 8321B	Carbamazepine-d10	76.4	P	30 - 160
EPA 8321B	Diuron-d6	73.7	P	30 - 160
EPA 8321B	Endothall-d6	91.9	P	40 - 160
EPA 8321B	Ibuprofen-d3	69.3	P	30 - 160
EPA 8321B	Primidone-d5	99.0	P	30 - 160
EPA 8321B	Sucralose-d6	129	P	40 - 160

Lab Sample ID: 2032874
Field Sample ID: 33020221

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
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Quality Assurance Report Surrogates

Lab Sample ID: 2032874
Field Sample ID: 33020221

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	128	P	30 - 160
EPA 8321B	Acetaminophen-d4	108	P	30 - 160
EPA 8321B	Carbamazepine-d10	79.1	P	30 - 160
EPA 8321B	Diuron-d6	77.7	P	30 - 160
EPA 8321B	Endothall-d6	79.3	P	40 - 160
EPA 8321B	Ibuprofen-d3	71.8	P	30 - 160
EPA 8321B	Primidone-d5	88.7	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	40 - 160

Lab Sample ID: 2032875
Field Sample ID: BMAP_EB

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	94.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	107	P	30 - 160
EPA 8321B	Carbamazepine-d10	78.4	P	30 - 160
EPA 8321B	Diuron-d6	78.9	P	30 - 160
EPA 8321B	Endothall-d6	82.7	P	40 - 160
EPA 8321B	Ibuprofen-d3	67.2	P	30 - 160
EPA 8321B	Primidone-d5	101	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A87090

Included Lab Sample IDs: 2032852, 2032853, 2032861, 2032865

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A87095

Included Lab Sample IDs: 2032857, 2032858, 2032859, 2032864, 2032867, 2032869

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

Reference Method: EPA 8321B

Run ID: A87135

Included Lab Sample IDs: 2032870, 2032871, 2032872, 2032873, 2032874, 2032875

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	102	97.8	P/P	60 - 160
Acesulfame K	106	119	P/P	60 - 160
Acesulfame K	97.8	108	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A87172

Included Lab Sample IDs: 2032870, 2032871, 2032872, 2032873, 2032874, 2032875

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	96.0	84.7	P/P	50 - 150
Bentazon	142	139	P/P	50 - 160
Ibuprofen	84.1	91.8	P/P	50 - 160
MCP	91.2	86.5	P/P	50 - 150
Naproxen	97.4	106	P/P	50 - 160
Triclopyr	87.5	86.8	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A87174

Included Lab Sample IDs: 2032870, 2032871, 2032872, 2032873, 2032874, 2032875

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	81.1	81.9	P/P	60 - 160
Sucralose	88.5	92.5	P/P	60 - 160
Sucralose	92.5	84.7	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A87180

Included Lab Sample IDs: 2032852, 2032853, 2032857, 2032858, 2032859, 2032861, 2032864, 2032865, 2032867, 2032869

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	100	P/P	90 - 110
Total-P	100	102	P/P	90 - 110
Total-P	102	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A87184

Included Lab Sample IDs: 2032870, 2032871, 2032872, 2032873, 2032874, 2032875

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	112	113	P/P	60 - 160
Acetaminophen	119	112	P/P	60 - 160
Carbamazepine	111	114	P/P	60 - 160
Carbamazepine	113	111	P/P	60 - 160
Diuron	103	113	P/P	60 - 150
Diuron	76.5	103	P/P	60 - 150
Fenuron	104	110	P/P	60 - 150
Fenuron	110	104	P/P	60 - 150
Fluridone	114	117	P/P	60 - 160
Fluridone	117	114	P/P	60 - 160
Hydrocodone	102	109	P/P	60 - 150
Hydrocodone	109	104	P/P	60 - 150
Imazapyr	112	93.6	P/P	50 - 150
Imazapyr	93.6	109	P/P	50 - 150
Imidacloprid	92.8	99.9	P/P	60 - 150
Imidacloprid	97.1	92.8	P/P	60 - 150
Linuron	114	113	P/P	60 - 150
Linuron	117	114	P/P	60 - 150
Primidone	103	98.6	P/P	60 - 150
Primidone	98.6	90.6	P/P	60 - 150
Pyraclostrobin	107	106	P/P	60 - 150
Pyraclostrobin	108	107	P/P	60 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A87188

Included Lab Sample IDs: 2032852, 2032853, 2032861, 2032865

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	101	P/P	90 - 110
Ammonia-N	103	102	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A87199

Included Lab Sample IDs: 2032850, 2032851, 2032854, 2032855, 2032856, 2032860, 2032862, 2032863, 2032866, 2032868

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	101	102	P/P	95 - 105
Turbidity	102	101	P/P	95 - 105

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87238

Included Lab Sample IDs: 2032857, 2032858, 2032859, 2032864, 2032867, 2032869

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.7	97.5	P/P	90 - 110
Kjeldahl Nitrogen	97.5	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A87246

Included Lab Sample IDs: 2032852, 2032853, 2032861, 2032865

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A87296

Included Lab Sample IDs: 2032869

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.7	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A87363

Included Lab Sample IDs: 2032857, 2032858, 2032859, 2032864, 2032867

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	100	P/P	90 - 110
Ammonia-N	100	101	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		Precision	
					LCS	MS
EPA 180.1 Rev. 2.0	Turbidity				11.1	
	Turbidity				1.94	
EPA 350.1 Rev. 2.0	Ammonia-N	99.0	103	104		1.23
	Ammonia-N	99.0	98.3	97.9		0.291
	Ammonia-N	97.3	97.9	99.8		1.37
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.2	100	91.2		7.94
	Kjeldahl Nitrogen	96.2	90.8	94.9		3.75
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	100	101		0.336
	NO2NO3-N	100	102	102		0.980
	NO2NO3-N	100	98.5	99.5		0.615
EPA 365.1 Rev. 2.0	Total-P	103	100	96.0		3.91
	Total-P	102	100	95.6		4.38
EPA 8321B	2,4-D	83.9	115	128		8.17
	Acesulfame K	102	107	108		0.807
	Acesulfame K	107	59.0	62.3		5.51
	Acetaminophen	79.3	78.5	81.9		4.22
	Bentazon	99.5				
	Carbamazepine	70.3	57.9	58.0		0.176
	Diuron	64.8	55.6	51.8		5.94
	Fenuron	87.2	72.7	71.5		1.78
	Fluridone	89.3				2.62
	Hydrocodone	80.9	75.9	74.2		2.32
	Ibuprofen	57.7	73.2	55.1		28.3
	Imazapyr	78.9				8.77
	Imidacloprid	69.2	128	126		0.864
	Linuron	63.2	52.4	47.9		9.10
	MCPP	85.2	127	139		8.51
	Naproxen	76.2	88.9	99.4		11.2
	Primidone	80.1	75.1	74.2		1.14
	Pyraclostrobin	60.5	69.1	71.3		3.06
	Sucralose	83.6	88.6	87.6		1.11
	Sucralose	84.4	81.3	93.2		11.7
	Triclopyr	78.2	128	139		8.06

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	2032850, 2032851, 2032854, 2032855, 2032856, 2032860, 2032862, 2032863, 2032866, 2032868
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2032852, 2032853, 2032857, 2032858, 2032859, 2032861, 2032864, 2032865, 2032867, 2032869
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2032852, 2032853, 2032857, 2032858, 2032859, 2032861, 2032864, 2032865, 2032867, 2032869
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2032852, 2032853, 2032857, 2032858, 2032859, 2032861, 2032864, 2032865, 2032867, 2032869
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2032852, 2032853, 2032857, 2032858, 2032859, 2032861, 2032864, 2032865, 2032867, 2032869
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2032870, 2032871, 2032872, 2032873, 2032874, 2032875

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	10/16/2018			10/16/2018 13:41	Megan Treadwell	2032850, 2032851, 2032854, 2032855, 2032856, 2032860, 2032862, 2032863, 2032866, 2032868
EPA 350.1 Rev. 2.0	10/16/2018			10/19/2018 13:02	Ping Hua	2032852
	10/16/2018			10/19/2018 13:19	Ping Hua	2032853
	10/16/2018			10/19/2018 13:20	Ping Hua	2032861
	10/16/2018			10/19/2018 13:22	Ping Hua	2032865
	10/16/2018			10/25/2018 15:27	Ping Hua	2032869
	10/16/2018			10/29/2018 13:23	Julia Storbeck	2032867
	10/16/2018			10/29/2018 13:27	Julia Storbeck	2032859
	10/16/2018			10/29/2018 13:35	Julia Storbeck	2032857
	10/16/2018			10/29/2018 13:36	Julia Storbeck	2032858
	10/16/2018			10/29/2018 13:38	Julia Storbeck	2032864
EPA 351.2 Rev. 2.0	10/16/2018	10/19/2018 11:30	Adrian Shelby	10/23/2018 14:14	Joseph Suarez	2032857
	10/16/2018	10/19/2018 11:30	Adrian Shelby	10/23/2018 14:16	Joseph Suarez	2032858
	10/16/2018	10/19/2018 11:30	Adrian Shelby	10/23/2018 14:17	Joseph Suarez	2032859
	10/16/2018	10/19/2018 11:30	Adrian Shelby	10/23/2018 14:19	Joseph Suarez	2032864
	10/16/2018	10/19/2018 11:30	Adrian Shelby	10/23/2018 14:20	Joseph Suarez	2032867
	10/16/2018	10/19/2018 11:30	Adrian Shelby	10/23/2018 14:28	Joseph Suarez	2032869
	10/16/2018	10/23/2018 09:00	Adrian Shelby	10/24/2018 09:29	Joseph Suarez	2032852
	10/16/2018	10/23/2018 09:00	Adrian Shelby	10/24/2018 09:31	Joseph Suarez	2032853
	10/16/2018	10/23/2018 09:00	Adrian Shelby	10/24/2018 09:36	Joseph Suarez	2032861
	10/16/2018	10/23/2018 09:00	Adrian Shelby	10/24/2018 09:37	Joseph Suarez	2032865
EPA 353.2 Rev. 2.0	10/16/2018			10/17/2018 11:07	Lauren Bottorf	2032853
	10/16/2018			10/17/2018 11:08	Lauren Bottorf	2032861
	10/16/2018			10/17/2018 11:10	Lauren Bottorf	2032865
	10/16/2018			10/17/2018 11:14	Lauren Bottorf	2032852
	10/16/2018			10/17/2018 13:36	Lauren Bottorf	2032857
	10/16/2018			10/17/2018 13:38	Lauren Bottorf	2032858
	10/16/2018			10/17/2018 13:52	Lauren Bottorf	2032869
	10/16/2018			10/17/2018 13:53	Lauren Bottorf	2032864
	10/16/2018			10/17/2018 14:23	Lauren Bottorf	2032859
	10/16/2018			10/17/2018 14:24	Lauren Bottorf	2032867
EPA 365.1 Rev. 2.0	10/16/2018	10/18/2018 12:55	Sima Feizi	10/19/2018 12:16	Beverly Y. Sanders	2032869
	10/16/2018	10/18/2018 12:55	Sima Feizi	10/19/2018 12:24	Beverly Y. Sanders	2032857
	10/16/2018	10/18/2018 12:55	Sima Feizi	10/19/2018 12:25	Beverly Y. Sanders	2032858
	10/16/2018	10/18/2018 12:55	Sima Feizi	10/19/2018 12:26	Beverly Y. Sanders	2032859
	10/16/2018	10/18/2018 12:55	Sima Feizi	10/19/2018 12:27	Beverly Y. Sanders	2032864
	10/16/2018	10/18/2018 12:55	Sima Feizi	10/19/2018 12:28	Beverly Y. Sanders	2032867
	10/16/2018	10/18/2018 12:55	Sima Feizi	10/19/2018 13:17	Beverly Y. Sanders	2032852, 2032853

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 365.1 Rev. 2.0	10/16/2018	10/18/2018 12:55	Sima Feizi	10/19/2018 13:18	Beverly Y. Sanders	2032861
	10/16/2018	10/18/2018 12:55	Sima Feizi	10/19/2018 13:19	Beverly Y. Sanders	2032865
EPA 8321B	10/16/2018	10/18/2018 14:00	Mohammad Ghaffari	10/18/2018 19:06	Rebecca Ware	2032870
	10/16/2018	10/18/2018 14:00	Mohammad Ghaffari	10/18/2018 19:35	Rebecca Ware	2032871
	10/16/2018	10/18/2018 14:00	Mohammad Ghaffari	10/18/2018 19:50	Rebecca Ware	2032872
	10/16/2018	10/18/2018 14:00	Mohammad Ghaffari	10/18/2018 20:05	Rebecca Ware	2032873
	10/16/2018	10/18/2018 14:00	Mohammad Ghaffari	10/19/2018 14:04	Mohammad Ghaffari	2032870
	10/16/2018	10/18/2018 14:00	Mohammad Ghaffari	10/19/2018 14:33	Mohammad Ghaffari	2032871
	10/16/2018	10/18/2018 14:00	Mohammad Ghaffari	10/19/2018 14:48	Mohammad Ghaffari	2032872
	10/16/2018	10/18/2018 14:00	Mohammad Ghaffari	10/19/2018 15:03	Mohammad Ghaffari	2032873
	10/16/2018	10/18/2018 16:00	Rebecca Ware	10/19/2018 01:42	Rebecca Ware	2032874
	10/16/2018	10/18/2018 16:00	Rebecca Ware	10/19/2018 01:57	Rebecca Ware	2032875
	10/16/2018	10/18/2018 16:00	Rebecca Ware	10/19/2018 20:40	Mohammad Ghaffari	2032874
	10/16/2018	10/18/2018 16:00	Rebecca Ware	10/19/2018 20:55	Mohammad Ghaffari	2032875
	10/16/2018	10/19/2018 10:00	Hoor Shaik	10/20/2018 08:55	Juyoung Kim	2032870
	10/16/2018	10/19/2018 10:00	Hoor Shaik	10/20/2018 09:29	Juyoung Kim	2032871
	10/16/2018	10/19/2018 10:00	Hoor Shaik	10/20/2018 10:04	Juyoung Kim	2032872
	10/16/2018	10/19/2018 10:00	Hoor Shaik	10/20/2018 10:38	Juyoung Kim	2032873
	10/16/2018	10/19/2018 10:00	Hoor Shaik	10/20/2018 11:13	Juyoung Kim	2032874
	10/16/2018	10/19/2018 10:00	Hoor Shaik	10/20/2018 11:47	Juyoung Kim	2032875
	10/16/2018	10/19/2018 10:00	Hoor Shaik	10/21/2018 03:22	Juyoung Kim	2032870
	10/16/2018	10/19/2018 10:00	Hoor Shaik	10/21/2018 03:56	Juyoung Kim	2032871
	10/16/2018	10/19/2018 10:00	Hoor Shaik	10/21/2018 04:31	Juyoung Kim	2032872
	10/16/2018	10/19/2018 10:00	Hoor Shaik	10/21/2018 05:40	Juyoung Kim	2032873
	10/16/2018	10/19/2018 10:00	Hoor Shaik	10/21/2018 06:15	Juyoung Kim	2032874
	10/16/2018	10/19/2018 10:00	Hoor Shaik	10/21/2018 06:49	Juyoung Kim	2032875