

Chemical Analysis Report

SW-DIST-2019-10-22-01

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

Event Description: **English, Pemberton, Baker, Spartman, Mustang, Poley**
Request ID: **RQ-2019-10-21-05**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 13-NOV-2019 14:25

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored 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 group are included in this report: 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: Poley Creek @ SR 60

Collection Date/Time: 10/21/2019 11:10

Field ID: G2SW0049

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2130294	EPA 8321B	2,4-D	0.050		ug/L	P372914	
		Acesulfame K**	0.10	U	ug/L	P373022	
		AMPA**	0.96		ug/L	P373022	
		Sucralose**	0.68		ug/L	P373022	
		Acetaminophen**	0.0080	U	ug/L	P372914	
		Acetamiprid**	0.0020	U	ug/L	P372914	
		Endothall**	0.25	U	ug/L	P373022	
		Glufosinate**	0.10	U	ug/L	P373022	
		Glyphosate**	1.6		ug/L	P373022	
		Afidopyropen**	0.0020	UJ	ug/L	P372914	
		Bentazon	0.0077		ug/L	P372914	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P372914	
		Carbamazepine**	0.0023	I	ug/L	P372914	
		Clothianidin**	0.0051	I	ug/L	P372914	
		Dinotefuran**	0.0051	I	ug/L	P372914	
		Diuron	0.020		ug/L	P372914	
		Fenuron	0.016	U	ug/L	P372914	
		Fluridone**	0.031		ug/L	P372914	
		Imazapyr**	0.17		ug/L	P372914	
		Hydrocodone**	0.0020	U	ug/L	P372914	
		Ibuprofen**	0.020	U	ug/L	P372914	
		Imidacloprid	0.060		ug/L	P372914	MS
		Linuron	0.0040	U	ug/L	P372914	
		Mandestrobin**	0.0020	UJ	ug/L	P372914	
		MCPP	0.0020	U	ug/L	P372914	
		Naproxen**	0.0080	U	ug/L	P372914	
		Primidone**	0.0040	U	ug/L	P372914	
		Pyraclostrobin**	0.0020	U	ug/L	P372914	
		Thiamethoxam**	0.0020	U	ug/L	P372914	
		Tolfenpyrad**	0.0020	U	ug/L	P372914	
		Triclopyr**	0.0040	U	ug/L	P372914	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

Sample Location: Spartman Branch at Harvey Tew Rd

Collection Date/Time: 10/21/2019 10:20

Field ID: G2SW0067

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2130295	EPA 8321B	2,4-D	0.026		ug/L	P372914	
		Acesulfame K**	0.10	U	ug/L	P373022	
		AMPA**	0.44		ug/L	P373022	
		Sucralose**	0.18		ug/L	P373022	
		Acetaminophen**	0.0080	U	ug/L	P372914	
		Acetamiprid**	0.0020	U	ug/L	P372914	
		Endothall**	0.25	U	ug/L	P373022	
		Glufosinate**	0.10	U	ug/L	P373022	
		Glyphosate**	0.74		ug/L	P373022	
		Afidopyropen**	0.0020	UJ	ug/L	P372914	
		Bentazon	0.019		ug/L	P372914	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P372914	
		Carbamazepine**	8.0E-04	U	ug/L	P372914	
		Clothianidin**	0.0020	U	ug/L	P372914	
		Dinotefuran**	0.0020	U	ug/L	P372914	
		Diuron	0.0049	I	ug/L	P372914	
		Fenuron	0.016	U	ug/L	P372914	
		Fluridone**	0.0019	I	ug/L	P372914	
		Imazapyr**	0.037		ug/L	P372914	
		Hydrocodone**	0.0020	U	ug/L	P372914	
		Ibuprofen**	0.020	U	ug/L	P372914	
		Imidacloprid	0.019		ug/L	P372914	MS
		Linuron	0.0040	U	ug/L	P372914	
		Mandestrobin**	0.0020	UJ	ug/L	P372914	
		MCPP	0.0020	U	ug/L	P372914	
		Naproxen**	0.0080	U	ug/L	P372914	
		Primidone**	0.0040	U	ug/L	P372914	
		Pyraclostrobin**	0.0020	U	ug/L	P372914	
		Thiamethoxam**	0.0020	U	ug/L	P372914	
		Tolfenpyrad**	0.0020	U	ug/L	P372914	
		Triclopyr**	0.0040	U	ug/L	P372914	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

Sample Location: Mustang Ranch Creek @ Hopewell

Collection Date/Time: 10/21/2019 10:50

Field ID: G2SW0026

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2130296	EPA 8321B	2,4-D	0.0020	U	ug/L	P372914	
		Acesulfame K**	0.10	U	ug/L	P373022	
		AMPA**	9.4		ug/L	P373022	
		Sucralose**	0.073		ug/L	P373022	
		Acetaminophen**	0.0080	U	ug/L	P372914	
		Acetamiprid**	0.0020	U	ug/L	P372914	
		Endothall**	0.25	U	ug/L	P373022	
		Glufosinate**	0.10	U	ug/L	P373022	
		Glyphosate**	10		ug/L	P373022	
		Afidopyropen**	0.0020	UJ	ug/L	P372914	
		Bentazon	8.0E-04	U	ug/L	P372914	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P372914	
		Carbamazepine**	8.0E-04	U	ug/L	P372914	
		Clothianidin**	0.0048	I	ug/L	P372914	
		Dinotefuran**	0.0020	U	ug/L	P372914	
		Diuron	0.0058	I	ug/L	P372914	
		Fenuron	0.016	U	ug/L	P372914	
		Fluridone**	8.0E-04	U	ug/L	P372914	
		Imazapyr**	0.0088	I	ug/L	P372914	
		Hydrocodone**	0.0020	U	ug/L	P372914	
		Ibuprofen**	0.020	U	ug/L	P372914	
		Imidacloprid	0.043		ug/L	P372914	MS
		Linuron	0.0040	U	ug/L	P372914	
		Mandestrobin**	0.0020	UJ	ug/L	P372914	
		MCPP	0.0020	U	ug/L	P372914	
		Naproxen**	0.0080	U	ug/L	P372914	
		Primidone**	0.0040	U	ug/L	P372914	
		Pyraclostrobin**	0.0020	U	ug/L	P372914	
		Thiamethoxam**	0.013		ug/L	P372914	
		Tolfenpyrad**	0.0020	U	ug/L	P372914	
		Triclopyr**	0.0040	U	ug/L	P372914	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P372914

Component	Result	Code	Units
2,4-D	0.0020	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
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	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
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
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B

Batch ID: P373022

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P372914

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	126		P	40 - 160
Acetaminophen	81.3		P	30 - 160
Acetamiprid	88.8		P	40 - 160
Afidopyropen	74.1		P	40 - 160
Bentazon	78.8		P	30 - 160
Benzovindiflupyr	81.5		P	40 - 160
Carbamazepine	95.6		P	40 - 160
Clothianidin	74.0		P	40 - 160
Dinotefuran	88.1		P	40 - 160
Diuron	89.5		P	40 - 160
Fenuron	97.8		P	40 - 160
Fluridone	90.7		P	40 - 160
Hydrocodone	94.8		P	40 - 160
Ibuprofen	79.8		P	30 - 160
Imazapyr	97.7		P	40 - 160
Imidacloprid	89.4		P	40 - 160
Linuron	70.5		P	40 - 160
Mandestrobin	88.7		P	40 - 160
MCPP	101		P	40 - 160
Naproxen	76.2		P	40 - 160
Primidone	93.0		P	40 - 160
Pyraclostrobin	82.8		P	30 - 160
Thiamethoxam	96.4		P	40 - 160
Tolfenpyrad	52.0		P	40 - 160
Triclopyr	93.8		P	30 - 160

Reference Method: EPA 8321B
Batch ID: P373022

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	103		P	40 - 150
AMPA	107		P	40 - 150
Endothall	96.7		P	40 - 150
Glufosinate	101		P	40 - 150
Glyphosate	111		P	40 - 140
Sucralose	80.7		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P372914

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130063	2,4-D	140	136	P/P	40 - 160
2130063	Acetaminophen	89.5	83.5	P/P	30 - 160
2130063	Acetamiprid	115	109	P/P	40 - 160
2130063	Afidopyropen	91.1	87.0	P/P	40 - 160
2130063	Bentazon	76.5	74.6	P/P	30 - 160
2130063	Benzovindiflupyr	97.1	90.9	P/P	40 - 160
2130063	Carbamazepine	108	107	P/P	40 - 160
2130063	Clothianidin	99.7	99.5	P/P	40 - 160
2130063	Dinotefuran	114	112	P/P	40 - 160
2130063	Diuron	98.1	92.1	P/P	40 - 160
2130063	Fenuron	103	104	P/P	40 - 160
2130063	Fluridone	94.1	91.7	P/P	40 - 160
2130063	Hydrocodone	116	114	P/P	40 - 160
2130063	Ibuprofen	96.5	86.3	P/P	30 - 160
2130063	Imazapyr	122	124	P/P	40 - 160
2130063	Imidacloprid	166	158	F/P	40 - 160
2130063	Linuron	82.9	83.1	P/P	40 - 160
2130063	Mandestrobin	101	95.3	P/P	40 - 160
2130063	MCP	114	111	P/P	40 - 160
2130063	Naproxen	92.8	106	P/P	40 - 160
2130063	Primidone	98.0	111	P/P	40 - 160
2130063	Pyraclostrobin	96.4	94.7	P/P	30 - 160
2130063	Thiamethoxam	152	150	P/P	40 - 160
2130063	Tolfenpyrad	63.4	58.3	P/P	40 - 160
2130063	Triclopyr	116	110	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P373022

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2130063	Acesulfame K	52.8	59.7	P/P	40 - 150
2130063	AMPA	89.4	86.6	P/P	40 - 150
2130063	Endothall	95.4	96.1	P/P	40 - 150
2130063	Glufosinate	106	102	P/P	40 - 150
2130063	Glyphosate	97.7	93.5	P/P	40 - 140
2130063	Sucralose	102	123	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 8321B
 Batch ID: P372914

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130063	2,4-D	3.19	Spike	P	0 - 30
2130063	Acetaminophen	6.98	Spike	P	0 - 30
2130063	Acetamiprid	5.18	Spike	P	0 - 30
2130063	Afidopyropen	4.65	Spike	P	0 - 30
2130063	Bentazon	2.34	Spike	P	0 - 30
2130063	Benzovindiflupyr	6.66	Spike	P	0 - 30
2130063	Carbamazepine	0.602	Spike	P	0 - 30
2130063	Clothianidin	0.195	Spike	P	0 - 30
2130063	Dinotefuran	1.54	Spike	P	0 - 30
2130063	Diuron	6.41	Spike	P	0 - 30
2130063	Fenuron	1.17	Spike	P	0 - 30
2130063	Fluridone	2.65	Spike	P	0 - 30
2130063	Hydrocodone	1.46	Spike	P	0 - 30
2130063	Ibuprofen	11.2	Spike	P	0 - 30
2130063	Imazapyr	1.74	Spike	P	0 - 30
2130063	Imidacloprid	3.65	Spike	P	0 - 30
2130063	Linuron	0.212	Spike	P	0 - 30
2130063	Mandestrobin	5.37	Spike	P	0 - 30
2130063	MCPP	3.00	Spike	P	0 - 30
2130063	Naproxen	13.6	Spike	P	0 - 30
2130063	Primidone	12.1	Spike	P	0 - 30
2130063	Pyraclostrobin	1.86	Spike	P	0 - 30
2130063	Thiamethoxam	1.36	Spike	P	0 - 30
2130063	Tolfenpyrad	8.44	Spike	P	0 - 30
2130063	Triclopyr	5.62	Spike	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P373022

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2130063	Acesulfame K	12.3	Spike	P	0 - 30
2130063	AMPA	3.19	Spike	P	0 - 30
2130063	Endothall	0.692	Spike	P	0 - 30
2130063	Glufosinate	4.38	Spike	P	0 - 30
2130063	Glyphosate	4.31	Spike	P	0 - 30
2130063	Sucralose	17.1	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2130294
Field Sample ID: G2SW0049

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	101	P	30 - 160
EPA 8321B	Acetaminophen-d4	63.6	P	30 - 160
EPA 8321B	Bentazon-d7	53.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	90.4	P	30 - 160
EPA 8321B	Diuron-d6	76.8	P	30 - 160
EPA 8321B	Endothall-d6	93.3	P	30 - 160
EPA 8321B	Endothall-d6	93.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	110	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	110	P	30 - 160
EPA 8321B	Ibuprofen-d3	78.8	P	30 - 160
EPA 8321B	Primidone-d5	89.0	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	30 - 160

Lab Sample ID: 2130295
Field Sample ID: G2SW0067

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	94.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	59.8	P	30 - 160
EPA 8321B	Bentazon-d7	34.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.2	P	30 - 160
EPA 8321B	Diuron-d6	69.6	P	30 - 160
EPA 8321B	Endothall-d6	89.1	P	30 - 160
EPA 8321B	Endothall-d6	89.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	84.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	84.7	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.2	P	30 - 160
EPA 8321B	Primidone-d5	78.8	P	30 - 160
EPA 8321B	Sucralose-d6	87.2	P	30 - 160
EPA 8321B	Sucralose-d6	87.2	P	30 - 160

Lab Sample ID: 2130296
Field Sample ID: G2SW0026

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	116	P	30 - 160
EPA 8321B	Acetaminophen-d4	66.8	P	30 - 160
EPA 8321B	Bentazon-d7	53.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	94.2	P	30 - 160
EPA 8321B	Diuron-d6	82.0	P	30 - 160
EPA 8321B	Endothall-d6	93.7	P	30 - 160
EPA 8321B	Endothall-d6	93.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	103	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	103	P	30 - 160
EPA 8321B	Ibuprofen-d3	79.7	P	30 - 160
EPA 8321B	Primidone-d5	97.0	P	30 - 160
EPA 8321B	Sucralose-d6	94.3	P	30 - 160
EPA 8321B	Sucralose-d6	94.3	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A95233

Included Lab Sample IDs: 2130294, 2130295, 2130296

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	97.2	88.6	P/P	50 - 150
Acetaminophen	94.3	89.3	P/P	60 - 160
Acetamiprid	102	103	P/P	50 - 150
Afidopyropen	97.3	94.1	P/P	50 - 150
Bentazon	99.4	101	P/P	50 - 160
Benzovindiflupyr	99.7	101	P/P	50 - 150
Carbamazepine	105	102	P/P	60 - 150
Clothianidin	95.5	97.1	P/P	60 - 150
Dinotefuran	91.9	98.3	P/P	50 - 150
Diuron	105	106	P/P	60 - 150
Fenuron	104	104	P/P	60 - 150
Fluridone	109	110	P/P	60 - 160
Hydrocodone	105	101	P/P	60 - 150
Ibuprofen	87.3	84.6	P/P	50 - 160
Imazapyr	103	104	P/P	50 - 150
Imidacloprid	91.1	96.2	P/P	60 - 150
Linuron	102	108	P/P	60 - 150
Mandestrobin	99.1	94.0	P/P	50 - 150
MCPP	83.9	90.6	P/P	50 - 150
Naproxen	103	110	P/P	50 - 160
Primidone	94.3	100	P/P	60 - 150
Pyraclostrobin	107	97.1	P/P	60 - 150
Thiamethoxam	91.9	94.1	P/P	50 - 150
Tolfenpyrad	96.0	96.2	P/P	60 - 150
Triclopyr	98.5	102	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A95270

Included Lab Sample IDs: 2130294, 2130295, 2130296

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	109	106	P/P	60 - 160
Glufosinate	113	103	P/P	60 - 160
Glyphosate	128	106	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A95273

Included Lab Sample IDs: 2130294, 2130295, 2130296

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	65.9	95.6	P/P	60 - 160
Endothall	96.1	111	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A95575

Included Lab Sample IDs: 2130294, 2130295, 2130296

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	103	131	P/P	60 - 160

Quality Assurance Report

Calibration Verification

* 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	SMP	MS
EPA 8321B	2,4-D	126	140	136			3.19
	Acesulfame K	103	52.8	59.7			12.3
	Acetaminophen	81.3	89.5	83.5			6.98
	Acetamiprid	88.8	115	109			5.18
	Afidopyropen	74.1	91.1	87.0			4.65
	AMPA	107	89.4	86.6			3.19
	Bentazon	78.8	76.5	74.6			2.34
	Benzovindiflupyr	81.5	97.1	90.9			6.66
	Carbamazepine	95.6	108	107			0.602
	Clothianidin	74.0	99.7	99.5			0.195
	Dinotefuran	88.1	114	112			1.54
	Diuron	89.5	98.1	92.1			6.41
	Endothall	96.7	95.4	96.1			0.692
	Fenuron	97.8	103	104			1.17
	Fluridone	90.7	94.1	91.7			2.65
	Glufosinate	101	106	102			4.38
	Glyphosate	111	97.7	93.5			4.31
	Hydrocodone	94.8	116	114			1.46
	Ibuprofen	79.8	96.5	86.3			11.2
	Imazapyr	97.7	122	124			1.74
	Imidacloprid	89.4	166	158			3.65
	Linuron	70.5	82.9	83.1			0.212
	Mandestrobin	88.7	101	95.3			5.37
	MCPP	101	114	111			3.00
	Naproxen	76.2	92.8	106			13.6
	Primidone	93.0	98.0	111			12.1
	Pyraclostrobin	82.8	96.4	94.7			1.86
	Sucralose	80.7	102	123			17.1
	Thiamethoxam	96.4	152	150			1.36
	Tolfenpyrad	52.0	63.4	58.3			8.44
	Triclopyr	93.8	116	110			5.62

Reference Method Descriptions

Method / DoH Cert

EPA 8321B / E31780
EPA 8321B / E31780

Description

Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS
Water soluble organic compounds by HPLC/MS/MS

Associated Samples

2130294, 2130295, 2130296
2130294, 2130295, 2130296

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	10/22/2019	10/23/2019 12:00	Hoor Shaik	10/24/2019 23:40	Juyoung Kim	2130294
	10/22/2019	10/23/2019 12:00	Hoor Shaik	10/25/2019 00:14	Juyoung Kim	2130295
	10/22/2019	10/23/2019 12:00	Hoor Shaik	10/25/2019 00:49	Juyoung Kim	2130296
	10/22/2019	10/24/2019 11:00	Rebecca Ware	10/24/2019 13:29	Rebecca Ware	2130294
	10/22/2019	10/24/2019 11:00	Rebecca Ware	10/24/2019 13:43	Rebecca Ware	2130295
	10/22/2019	10/24/2019 11:00	Rebecca Ware	10/24/2019 13:57	Rebecca Ware	2130296
	10/22/2019	10/24/2019 11:00	Rebecca Ware	10/25/2019 11:26	Rebecca Ware	2130294
	10/22/2019	10/24/2019 11:00	Rebecca Ware	10/25/2019 11:37	Rebecca Ware	2130295
	10/22/2019	10/24/2019 11:00	Rebecca Ware	10/25/2019 11:48	Rebecca Ware	2130296
	10/22/2019	10/24/2019 11:00	Rebecca Ware	11/06/2019 20:57	Rebecca Ware	2130294
	10/22/2019	10/24/2019 11:00	Rebecca Ware	11/06/2019 21:09	Rebecca Ware	2130295
	10/22/2019	10/24/2019 11:00	Rebecca Ware	11/06/2019 21:20	Rebecca Ware	2130296