

Chemical Analysis Report

CEN-DIST-2019-10-17-01

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

Event Description: **UnBranch x2 / Groover x2**

Request ID: **RQ-2019-10-14-44**

Customer: **CEN-DIST**

Project ID: **SMP**

Send Reports to:

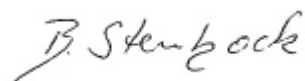
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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 04-NOV-2019 17:47



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: Unnamed Branch @ 60m upstream of Airport Road

Collection Date/Time: 10/16/2019 11:11

Field ID: G5CE0084

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2129103	EPA 8321B	2,4-D	0.0020	U	ug/L	P372737	
		Acesulfame K**	0.10	U	ug/L	P372594	
		AMPA**	0.10	U	ug/L	P372594	
		Sucralose**	0.11		ug/L	P372594	
		Acetaminophen**	0.0080	U	ug/L	P372737	
		Acetamiprid**	0.0020	U	ug/L	P372737	
		Endothall**	0.25	U	ug/L	P372594	
		Glufosinate**	0.10	U	ug/L	P372594	
		Glyphosate**	0.12	I	ug/L	P372594	
		Afidopyropen**	0.0020	UJ	ug/L	P372737	
		Bentazon	0.10		ug/L	P372737	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P372737	
		Carbamazepine**	8.0E-04	U	ug/L	P372737	
		Clothianidin**	0.0045	I	ug/L	P372737	
		Dinotefuran**	0.0020	U	ug/L	P372737	
		Diuron	0.0020	U	ug/L	P372737	
		Fenuron	0.016	U	ug/L	P372737	
		Fluridone**	0.015		ug/L	P372737	
		Imazapyr**	0.25		ug/L	P372737	
		Hydrocodone**	0.0020	U	ug/L	P372737	
		Ibuprofen**	0.020	U	ug/L	P372737	
		Imidacloprid	0.011	J	ug/L	P372737	MS
		Linuron	0.0040	U	ug/L	P372737	
		Mandestrobin**	0.0020	UJ	ug/L	P372737	
		MCPP	0.0020	U	ug/L	P372737	
		Naproxen**	0.0080	U	ug/L	P372737	
		Primidone**	0.0040	U	ug/L	P372737	
		Pyraclostrobin**	0.0020	U	ug/L	P372737	
		Thiamethoxam**	0.0020	UJ	ug/L	P372737	MS
		Tolfenpyrad**	0.0020	U	ug/L	P372737	
		Triclopyr**	0.0040	U	ug/L	P372737	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for imazapyr could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Unnamed Branch @ Bear Creek Path

Collection Date/Time: 10/16/2019 11:25

Field ID: G5CE0032

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2129104	EPA 8321B	2,4-D	0.0020	U	ug/L	P372737	
		Acesulfame K**	0.10	U	ug/L	P372770	
		AMPA**	0.20	I	ug/L	P372770	MS
		Sucralose**	0.23		ug/L	P372770	
		Acetaminophen**	0.0080	U	ug/L	P372737	
		Acetamiprid**	0.0020	U	ug/L	P372737	
		Endothall**	0.25	U	ug/L	P372770	
		Glufosinate**	0.10	U	ug/L	P372770	
		Glyphosate**	0.30	I	ug/L	P372770	
		Afidopyropen**	0.0020	UJ	ug/L	P372737	
		Bentazon	0.19		ug/L	P372737	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P372737	
		Carbamazepine**	8.0E-04	U	ug/L	P372737	
		Clothianidin**	0.0092		ug/L	P372737	
		Dinotefuran**	0.0020	U	ug/L	P372737	
		Diuron	0.0020	U	ug/L	P372737	
		Fenuron	0.016	U	ug/L	P372737	
		Fluridone**	0.033		ug/L	P372737	
		Imazapyr**	0.32		ug/L	P372737	
		Hydrocodone**	0.0020	U	ug/L	P372737	
		Ibuprofen**	0.020	U	ug/L	P372737	
		Imidacloprid	0.012		ug/L	P372737	MS
		Linuron	0.0040	U	ug/L	P372737	
		Mandestrobin**	0.0020	UJ	ug/L	P372737	
		MCPP	0.0020	U	ug/L	P372737	
		Naproxen**	0.0080	U	ug/L	P372737	
		Primidone**	0.0040	U	ug/L	P372737	
		Pyraclostrobin**	0.0020	U	ug/L	P372737	
		Thiamethoxam**	0.0020	U	ug/L	P372737	MS
		Tolfenpyrad**	0.0020	U	ug/L	P372737	
		Triclopyr**	0.0040	U	ug/L	P372737	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for imazapyr could not be assessed due to high concentration of parameter in the spiked sample. MS accuracy and precision for bentazon could not be assessed due to high concentration of parameter in the spiked sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P372594

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: P372737

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
MCP	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: P372770

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: P372594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	84.1		P	40 - 150
AMPA	117		P	40 - 150
Endothall	92.6		P	40 - 150
Glufosinate	82.4		P	40 - 150
Glyphosate	81.0		P	40 - 140
Sucralose	99.0		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P372737

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	136		P	40 - 160
Acetaminophen	89.7		P	30 - 160
Acetamiprid	92.4		P	40 - 160
Afidopyropen	97.2		P	40 - 160
Bentazon	70.9		P	30 - 160
Benzovindiflupyr	95.5		P	40 - 160
Carbamazepine	102		P	40 - 160
Clothianidin	91.7		P	40 - 160
Dinotefuran	91.6		P	40 - 160
Diuron	83.9		P	40 - 160
Fenuron	92.0		P	40 - 160
Fluridone	90.1		P	40 - 160
Hydrocodone	96.7		P	40 - 160
Ibuprofen	92.4		P	30 - 160
Imazapyr	85.6		P	40 - 160
Imidacloprid	101		P	40 - 160
Linuron	80.2		P	40 - 160
Mandestrobin	86.9		P	40 - 160
MCPP	134		P	40 - 160
Naproxen	109		P	40 - 160
Primidone	85.9		P	40 - 160
Pyraclostrobin	89.4		P	30 - 160
Thiamethoxam	111		P	40 - 160
Tolfenpyrad	56.6		P	40 - 160
Triclopyr	130		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P372770

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	104		P	40 - 150
AMPA	111		P	40 - 150
Endothall	108		P	40 - 150
Glufosinate	88.0		P	40 - 150
Glyphosate	111		P	40 - 140
Sucralose	98.0		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P372594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2128620	Acesulfame K	50.6	61.0	P/P	40 - 150
2128620	AMPA	61.1	63.7	P/P	40 - 150
2128620	Endothall	58.1	63.1	P/P	40 - 150
2128620	Glufosinate	80.6	76.7	P/P	40 - 150
2128620	Glyphosate	82.8	79.0	P/P	40 - 140
2128620	Sucralose	114	104	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P372737

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129103	2,4-D	121	114	P/P	40 - 160
2129103	Acetaminophen	67.3	71.5	P/P	30 - 160
2129103	Acetamiprid	103	99.2	P/P	40 - 160
2129103	Afidopyropen	99.7	106	P/P	40 - 160
2129103	Benzovindiflupyr	102	102	P/P	40 - 160
2129103	Carbamazepine	86.0	89.1	P/P	40 - 160
2129103	Clothianidin	93.1	95.2	P/P	40 - 160
2129103	Dinotefuran	110	113	P/P	40 - 160
2129103	Diuron	69.7	72.4	P/P	40 - 160
2129103	Fenuron	81.9	77.9	P/P	40 - 160
2129103	Fluridone	74.5	91.1	P/P	40 - 160
2129103	Hydrocodone	95.6	105	P/P	40 - 160
2129103	Ibuprofen	79.2	79.0	P/P	30 - 160
2129103	Imidacloprid	178	181	F/F	40 - 160
2129103	Linuron	74.8	79.5	P/P	40 - 160
2129103	Mandestrobin	97.8	99.7	P/P	40 - 160
2129103	MCP	116	121	P/P	40 - 160
2129103	Naproxen	93.4	81.7	P/P	40 - 160
2129103	Primidone	88.4	92.5	P/P	40 - 160
2129103	Pyraclostrobin	97.5	96.4	P/P	30 - 160
2129103	Thiamethoxam	163	162	F/F	40 - 160
2129103	Tolfenpyrad	71.5	71.8	P/P	40 - 160
2129103	Triclopyr	118	114	P/P	30 - 160

Reference Method: EPA 8321B
Batch ID: P372770

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2129142	Acesulfame K	61.8	66.5	P/P	40 - 150
2129142	AMPA	30.2	40.4	F/P	40 - 150
2129142	Endothall	107	115	P/P	40 - 150
2129142	Glufosinate	65.1	65.5	P/P	40 - 150
2129142	Glyphosate	68.0	68.5	P/P	40 - 140
2129142	Sucralose	89.0	106	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 8321B

Batch ID: P372594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2128620	Acesulfame K	18.5	Spike	P	0 - 30
2128620	AMPA	3.37	Spike	P	0 - 30
2128620	Endothall	1.53	Spike	P	0 - 30
2128620	Glufosinate	4.95	Spike	P	0 - 30
2128620	Glyphosate	3.02	Spike	P	0 - 30
2128620	Sucralose	8.16	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P372737

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129103	2,4-D	5.72	Spike	P	0 - 30
2129103	Acetaminophen	6.08	Spike	P	0 - 30
2129103	Acetamiprid	4.23	Spike	P	0 - 30
2129103	Afidopyropen	5.87	Spike	P	0 - 30
2129103	Benzovindiflupyr	0.307	Spike	P	0 - 30
2129103	Carbamazepine	3.52	Spike	P	0 - 30
2129103	Clothianidin	2.13	Spike	P	0 - 30
2129103	Dinotefuran	3.11	Spike	P	0 - 30
2129103	Diuron	3.75	Spike	P	0 - 30
2129103	Fenuron	4.99	Spike	P	0 - 30
2129103	Fluridone	10.3	Spike	P	0 - 30
2129103	Hydrocodone	9.74	Spike	P	0 - 30
2129103	Ibuprofen	0.322	Spike	P	0 - 30
2129103	Imazapyr	2.55	Spike	P	0 - 30
2129103	Imidacloprid	1.13	Spike	P	0 - 30
2129103	Linuron	6.05	Spike	P	0 - 30
2129103	Mandestrobin	1.92	Spike	P	0 - 30
2129103	MCP	4.47	Spike	P	0 - 30
2129103	Naproxen	13.4	Spike	P	0 - 30
2129103	Primidone	4.55	Spike	P	0 - 30
2129103	Pyraclostrobin	1.18	Spike	P	0 - 30
2129103	Thiamethoxam	0.471	Spike	P	0 - 30
2129103	Tolfenpyrad	0.435	Spike	P	0 - 30
2129103	Triclopyr	3.52	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P372770

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2129142	Acesulfame K	7.28	Spike	P	0 - 30
2129142	AMPA	10.5	Spike	P	0 - 30
2129142	Endothall	7.55	Spike	P	0 - 30
2129142	Glufosinate	0.614	Spike	P	0 - 30
2129142	Glyphosate	0.246	Spike	P	0 - 30
2129142	Sucralose	15.3	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2129103
Field Sample ID: G5CE0084

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	128	P	30 - 160
EPA 8321B	Acetaminophen-d4	78.4	P	30 - 160
EPA 8321B	Bentazon-d7	36.6	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.6	P	30 - 160
EPA 8321B	Diuron-d6	73.6	P	30 - 160
EPA 8321B	Endothall-d6	98.1	P	30 - 160
EPA 8321B	Endothall-d6	98.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	66.2	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	66.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	94.0	P	30 - 160
EPA 8321B	Primidone-d5	91.7	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160
EPA 8321B	Sucralose-d6	109	P	30 - 160

Lab Sample ID: 2129104
Field Sample ID: G5CE0032

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	122	P	30 - 160
EPA 8321B	Acetaminophen-d4	72.1	P	30 - 160
EPA 8321B	Bentazon-d7	34.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	83.6	P	30 - 160
EPA 8321B	Diuron-d6	70.8	P	30 - 160
EPA 8321B	Endothall-d6	116	P	30 - 160
EPA 8321B	Endothall-d6	116	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	66.8	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	66.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	81.7	P	30 - 160
EPA 8321B	Primidone-d5	86.8	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A95044
Included Lab Sample IDs: 2129103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	94.5	83.9	P/P	60 - 160
Glufosinate	101	86.6	P/P	60 - 160
Glyphosate	105	98.7	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A95073
Included Lab Sample IDs: 2129103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	97.6	128	P/P	60 - 160
Endothall	98.6	91.0	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A95074
Included Lab Sample IDs: 2129103

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	101	98.8	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A95104
Included Lab Sample IDs: 2129104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	93.3	102	P/P	60 - 160
Glufosinate	85.7	94.2	P/P	60 - 160
Glyphosate	90.6	98.4	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A95108
Included Lab Sample IDs: 2129104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	77.3	63.9	P/P	60 - 160
Endothall	90.3	96.7	P/P	60 - 160

Reference Method: EPA 8321B
Run ID: A95110
Included Lab Sample IDs: 2129103, 2129104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	110	102	P/P	50 - 150
Acetaminophen	104	95.1	P/P	60 - 160
Acetamiprid	101	107	P/P	50 - 150
Afidopyropen	118	115	P/P	50 - 150
Bentazon	102	101	P/P	50 - 160
Benzovindiflupyr	116	116	P/P	50 - 150
Carbamazepine	108	105	P/P	60 - 150
Clothianidin	108	75.5	P/P	60 - 150
Dinotefuran	98.1	96.7	P/P	50 - 150
Diuron	105	104	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A95110

Included Lab Sample IDs: 2129103, 2129104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenuron	105	102	P/P	60 - 150
Fluridone	108	112	P/P	60 - 160
Hydrocodone	107	99.6	P/P	60 - 150
Ibuprofen	96.5	78.6	P/P	50 - 160
Imazapyr	93.1	85.9	P/P	50 - 150
Imidacloprid	102	94.4	P/P	60 - 150
Linuron	93.1	97.6	P/P	60 - 150
Mandestrobin	107	113	P/P	50 - 150
MCPP	97.4	97.4	P/P	50 - 150
Naproxen	95.4	93.3	P/P	50 - 160
Primidone	107	103	P/P	60 - 150
Pyraclostrobin	110	106	P/P	60 - 150
Thiamethoxam	122	120	P/P	50 - 150
Tolfenpyrad	110	109	P/P	60 - 150
Triclopyr	103	110	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A95380

Included Lab Sample IDs: 2129104

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	107	97.9	P/P	60 - 160

* 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	136	121	114			5.72
	Acesulfame K	84.1	50.6	61.0			18.5
	Acesulfame K	104	61.8	66.5			7.28
	Acetaminophen	89.7	67.3	71.5			6.08
	Acetamiprid	92.4	103	99.2			4.23
	Afidopyropen	97.2	99.7	106			5.87
	AMPA	117	61.1	63.7			3.37
	AMPA	111	30.2	40.4			10.5
	Bentazon	70.9					
	Benzovindiflupyr	95.5	102	102			0.307
	Carbamazepine	102	86.0	89.1			3.52
	Clothianidin	91.7	93.1	95.2			2.13
	Dinotefuran	91.6	110	113			3.11
	Diuron	83.9	69.7	72.4			3.75
	Endothall	92.6	58.1	63.1			1.53
	Endothall	108	107	115			7.55
	Fenuron	92.0	81.9	77.9			4.99
	Fluridone	90.1	74.5	91.1			10.3
	Glufosinate	82.4	80.6	76.7			4.95
	Glufosinate	88.0	65.1	65.5			0.614
	Glyphosate	81.0	82.8	79.0			3.02
	Glyphosate	111	68.0	68.5			0.246
	Hydrocodone	96.7	95.6	105			9.74
	Ibuprofen	92.4	79.2	79.0			0.322
	Imazapyr	85.6					2.55
	Imidacloprid	101	178	181			1.13
	Linuron	80.2	74.8	79.5			6.05
	Mandestrobin	86.9	97.8	99.7			1.92
	MCPP	134	116	121			4.47
	Naproxen	109	93.4	81.7			13.4
	Primidone	85.9	88.4	92.5			4.55
	Pyraclostrobin	89.4	97.5	96.4			1.18
	Sucralose	99.0	114	104			8.16
	Sucralose	98.0	89.0	106			15.3
	Thiamethoxam	111	163	162			0.471
	Tolfenpyrad	56.6	71.5	71.8			0.435
	Triclopyr	130	118	114			3.52

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

2129103, 2129104

2129103, 2129104

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	10/17/2019	10/17/2019 12:00	Mohammad Ghaffari	10/17/2019 16:12	Mohammad Ghaffari	2129103
	10/17/2019	10/17/2019 12:00	Mohammad Ghaffari	10/18/2019 19:11	Mohammad Ghaffari	2129103
	10/17/2019	10/17/2019 12:00	Mohammad Ghaffari	10/19/2019 21:36	Mohammad Ghaffari	2129103
	10/17/2019	10/21/2019 09:00	Hoor Shaik	10/22/2019 03:54	Juyoung Kim	2129103
	10/17/2019	10/21/2019 09:00	Hoor Shaik	10/22/2019 04:28	Juyoung Kim	2129104
	10/17/2019	10/21/2019 09:00	Hoor Shaik	10/22/2019 14:49	Juyoung Kim	2129103
	10/17/2019	10/21/2019 09:00	Hoor Shaik	10/22/2019 15:23	Juyoung Kim	2129104
	10/17/2019	10/21/2019 09:00	Mohammad Ghaffari	10/21/2019 11:57	Mohammad Ghaffari	2129104
	10/17/2019	10/21/2019 09:00	Mohammad Ghaffari	10/21/2019 13:30	Mohammad Ghaffari	2129104
	10/17/2019	10/21/2019 09:00	Mohammad Ghaffari	10/31/2019 02:26	Rebecca Ware	2129104