

Chemical Analysis Report

SW-DIST-2019-07-23-01

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

Event Description: **Bishop Creek Sites (LR3)**

Request ID: **RQ-2019-07-22-03**

Customer: **SW-DIST**

Project ID: **SMP**

Send Reports to:

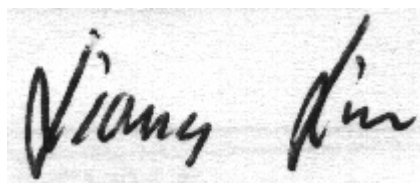
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Attn: Judy Ashton

For additional information please contact

Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Liang Lin, Environmental Administrator

Date Certified: 08-AUG-2019 11:21

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: BISHOP CRK @ OAKCREST DR (PC12-02)

Collection Date/Time: 07/22/2019 12:37

Field ID: G1SW0063

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105163	EPA 8321B	2,4-D	0.055		ug/L	P367470	
		Acesulfame K**	0.10	U	ug/L	P367852	
		AMPA**	0.57		ug/L	P367852	MS
		Sucralose**	0.24		ug/L	P367852	
		Acetaminophen**	0.0080	U	ug/L	P367470	
		Endothall**	0.25	U	ug/L	P367852	
		Acetamiprid**	0.0020	UJ	ug/L	P367470	
		Glufosinate**	0.10	U	ug/L	P367852	
		Glyphosate**	1.3		ug/L	P367852	
		Afidopyropen**	0.0020	UJ	ug/L	P367470	
		Bentazon	0.023		ug/L	P367470	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P367470	
		Carbamazepine**	9.4E-04	I	ug/L	P367470	
		Clothianidin**	0.16	J	ug/L	P367470	
		Dinotefuran**	0.0020	UJ	ug/L	P367470	
		Diuron	0.0083		ug/L	P367470	
		Fenuron	0.016	U	ug/L	P367470	
		Fluridone**	0.064		ug/L	P367470	
		Imazapyr**	0.052		ug/L	P367470	
		Hydrocodone**	0.0020	U	ug/L	P367470	
		Ibuprofen**	0.020	U	ug/L	P367470	
		Imidacloprid	0.17		ug/L	P367470	MS
		Linuron	0.0040	U	ug/L	P367470	
		Mandestrobin**	0.0020	UJ	ug/L	P367470	
		MCPP	0.0058	I	ug/L	P367470	MS
		Naproxen**	0.0080	U	ug/L	P367470	
		Primidone**	0.0040	U	ug/L	P367470	
		Pyraclostrobin**	0.0020	U	ug/L	P367470	
		Thiamethoxam**	0.0037	IJ	ug/L	P367470	
		Tolfenpyrad**	0.0020	UJ	ug/L	P367470	
		Triclopyr**	0.0040	U	ug/L	P367470	

Ref. Method and Comment:

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

Sample Location: BISHOP CRK @ HARBOR LAKES (PC12-04)

Collection Date/Time: 07/22/2019 12:59

Field ID: G1SW0061

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2105164	EPA 8321B	2,4-D	0.047		ug/L	P367470	
		Acesulfame K**	0.10	U	ug/L	P367852	
		AMPA**	0.37	I	ug/L	P367852	MS
		Sucralose**	0.13		ug/L	P367852	
		Acetaminophen**	0.0080	U	ug/L	P367470	
		Endothall**	0.25	U	ug/L	P367852	
		Acetamiprid**	0.0020	UJ	ug/L	P367470	
		Glufosinate**	0.10	U	ug/L	P367852	
		Glyphosate**	0.27	I	ug/L	P367852	
		Afidopyropen**	0.0020	UJ	ug/L	P367470	
		Bentazon	0.068		ug/L	P367470	
		Benzovindiflupyr**	0.0020	UJ	ug/L	P367470	
		Carbamazepine**	8.0E-04	U	ug/L	P367470	
		Clothianidin**	0.043	J	ug/L	P367470	
		Dinotefuran**	0.0033	IJ	ug/L	P367470	
		Diuron	0.047		ug/L	P367470	
		Fenuron	0.016	U	ug/L	P367470	
		Fluridone**	0.026		ug/L	P367470	
		Imazapyr**	0.81		ug/L	P367470	
		Hydrocodone**	0.0020	U	ug/L	P367470	
		Ibuprofen**	0.020	U	ug/L	P367470	
		Imidacloprid	0.30		ug/L	P367470	MS
		Linuron	0.0040	U	ug/L	P367470	
		Mandestrobin**	0.0020	UJ	ug/L	P367470	
		MCPP	0.0053	I	ug/L	P367470	MS
		Naproxen**	0.0080	U	ug/L	P367470	
		Primidone**	0.0040	U	ug/L	P367470	
		Pyraclostrobin**	0.0020	U	ug/L	P367470	
		Thiamethoxam**	0.0020	UJ	ug/L	P367470	
		Tolfenpyrad**	0.0020	UJ	ug/L	P367470	
		Triclopyr**	0.0040	U	ug/L	P367470	

Ref. Method and Comment:

EPA 8321B: J - second source check standards for some analytes were not available for analysis. MS accuracy for some analytes 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: P367470

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: P367852

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: P367470

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	143		P	40 - 150
Acetaminophen	95.8		P	30 - 150
Acetamiprid	101		P	40 - 150
Afidopyropen	89.0		P	40 - 150
Bentazon	127		P	30 - 150
Benzovindiflupyr	107		P	40 - 150
Carbamazepine	94.4		P	40 - 150
Clothianidin	107		P	40 - 150
Dinotefuran	106		P	40 - 150
Diuron	101		P	40 - 150
Fenuron	107		P	40 - 150
Fluridone	102		P	40 - 150
Hydrocodone	106		P	40 - 150
Ibuprofen	93.4		P	30 - 150
Imazapyr	93.8		P	40 - 150
Imidacloprid	101		P	40 - 150
Linuron	84.6		P	40 - 150
Mandestrobin	104		P	40 - 150
MCPP	145		P	40 - 150
Naproxen	106		P	40 - 150
Primidone	91.6		P	40 - 150
Pyraclostrobin	95.4		P	30 - 150
Thiamethoxam	105		P	40 - 150
Tolfenpyrad	64.4		P	40 - 150
Triclopyr	93.0		P	30 - 150

Reference Method: EPA 8321B
Batch ID: P367852

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	133		P	40 - 150
AMPA	81.2		P	40 - 150
Endothall	97.0		P	40 - 150
Glufosinate	78.4		P	40 - 150
Glyphosate	67.8		P	40 - 140
Sucralose	77.0		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P367470

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105151	Acetaminophen	98.2	96.3	P/P	30 - 150
2105151	Acetamiprid	89.6	86.3	P/P	40 - 150
2105151	Afidopyropen	84.0	76.5	P/P	40 - 150
2105151	Benzovindiflupyr	93.7	95.7	P/P	40 - 150
2105151	Carbamazepine	76.3	78.4	P/P	40 - 150
2105151	Clothianidin	95.2	98.5	P/P	40 - 150
2105151	Dinotefuran	99.5	112	P/P	40 - 150
2105151	Diuron	78.9	76.1	P/P	40 - 150
2105151	Fenuron	74.2	69.5	P/P	40 - 150
2105151	Fluridone	87.0	90.5	P/P	40 - 150
2105151	Hydrocodone	99.4	83.9	P/P	40 - 150
2105151	Ibuprofen	101	101	P/P	30 - 150
2105151	Imazapyr	78.7	80.9	P/P	40 - 150
2105151	Imidacloprid	164	175	F/F	40 - 150
2105151	Linuron	75.8	75.4	P/P	40 - 150
2105151	Mandestrobin	90.6	87.3	P/P	40 - 150
2105151	MCCP	197	202	F/F	40 - 150
2105151	Naproxen	111	121	P/P	40 - 150
2105151	Primidone	90.4	94.5	P/P	40 - 150
2105151	Pyraclostrobin	87.9	88.6	P/P	30 - 150
2105151	Thiamethoxam	118	126	P/P	40 - 150
2105151	Tolfenpyrad	64.3	60.0	P/P	40 - 150
2105151	Triclopyr	113	125	P/P	30 - 150

Reference Method: EPA 8321B
Batch ID: P367852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2105151	Acesulfame K	65.5	70.8	P/P	40 - 150
2105151	AMPA	32.1	30.9	F/F	40 - 150
2105151	Endothall	83.2	91.4	P/P	40 - 150
2105151	Glufosinate	48.8	48.3	P/P	40 - 150
2105151	Glyphosate	66.1	65.1	P/P	40 - 140
2105151	Sucralose	129	125	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P367470

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105151	2,4-D	0.987	Spike	P	0 - 30
2105151	Acetaminophen	1.98	Spike	P	0 - 30
2105151	Acetamiprid	3.78	Spike	P	0 - 30
2105151	Afidopyropen	9.35	Spike	P	0 - 30
2105151	Bentazon	3.29	Spike	P	0 - 30
2105151	Benzovindiflupyr	2.13	Spike	P	0 - 30
2105151	Carbamazepine	2.73	Spike	P	0 - 30
2105151	Clothianidin	3.21	Spike	P	0 - 30
2105151	Dinotefuran	9.24	Spike	P	0 - 30
2105151	Diuron	3.27	Spike	P	0 - 30
2105151	Fenuron	6.49	Spike	P	0 - 30
2105151	Fluridone	2.97	Spike	P	0 - 30
2105151	Hydrocodone	16.9	Spike	P	0 - 30
2105151	Ibuprofen	0.0193	Spike	P	0 - 30
2105151	Imazapyr	1.43	Spike	P	0 - 30
2105151	Imidacloprid	5.51	Spike	P	0 - 30
2105151	Linuron	0.617	Spike	P	0 - 30
2105151	Mandestrobin	3.66	Spike	P	0 - 30
2105151	MCPP	2.68	Spike	P	0 - 30
2105151	Naproxen	9.06	Spike	P	0 - 30
2105151	Primidone	4.51	Spike	P	0 - 30
2105151	Pyraclostrobin	0.821	Spike	P	0 - 30
2105151	Thiamethoxam	5.10	Spike	P	0 - 30
2105151	Tolfenpyrad	6.79	Spike	P	0 - 30
2105151	Triclopyr	9.89	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P367852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2105151	Acesulfame K	7.82	Spike	P	0 - 30
2105151	AMPA	2.63	Spike	P	0 - 30
2105151	Endothall	9.40	Spike	P	0 - 30
2105151	Glufosinate	0.992	Spike	P	0 - 30
2105151	Glyphosate	1.50	Spike	P	0 - 30
2105151	Sucralose	2.51	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: 2105163
Field Sample ID: G1SW0063

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	144	P	30 - 160
EPA 8321B	2,4-D-d3	144	P	30 - 160
EPA 8321B	Acetaminophen-d4	109	P	30 - 160
EPA 8321B	Acetaminophen-d4	109	P	30 - 160
EPA 8321B	Carbamazepine-d10	104	P	30 - 160
EPA 8321B	Carbamazepine-d10	104	P	30 - 160
EPA 8321B	Diuron-d6	98.7	P	30 - 160
EPA 8321B	Diuron-d6	98.7	P	30 - 160
EPA 8321B	Endothall-d6	100	P	30 - 160
EPA 8321B	Endothall-d6	100	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	58.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	58.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	132	P	30 - 160
EPA 8321B	Ibuprofen-d3	132	P	30 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	30 - 160
EPA 8321B	Sucralose-d6	111	P	30 - 160

Lab Sample ID: 2105164
Field Sample ID: G1SW0061

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	149	P	30 - 160
EPA 8321B	2,4-D-d3	149	P	30 - 160
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Acetaminophen-d4	106	P	30 - 160
EPA 8321B	Carbamazepine-d10	104	P	30 - 160
EPA 8321B	Carbamazepine-d10	104	P	30 - 160
EPA 8321B	Diuron-d6	94.3	P	30 - 160
EPA 8321B	Diuron-d6	94.3	P	30 - 160
EPA 8321B	Endothall-d6	88.5	P	30 - 160
EPA 8321B	Endothall-d6	88.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	48.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	48.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	126	P	30 - 160
EPA 8321B	Ibuprofen-d3	126	P	30 - 160
EPA 8321B	Primidone-d5	125	P	30 - 160
EPA 8321B	Primidone-d5	125	P	30 - 160
EPA 8321B	Sucralose-d6	159	P	30 - 160
EPA 8321B	Sucralose-d6	159	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A93078

Included Lab Sample IDs: 2105163, 2105164

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	91.4	93.6	P/P	50 - 150
Acetaminophen	114	110	P/P	60 - 160
Acetamiprid	93.2	102	P/P	50 - 150
Afidopyropen	105	90.2	P/P	50 - 150
Bentazon	118	113	P/P	50 - 160
Benzovindiflupyr	112	117	P/P	50 - 150
Carbamazepine	101	98.1	P/P	60 - 150
Clothianidin	121	109	P/P	60 - 150
Dinotefuran	107	106	P/P	50 - 150
Diuron	115	108	P/P	60 - 150
Fenuron	107	109	P/P	60 - 150
Fluridone	109	106	P/P	60 - 160
Hydrocodone	103	98.8	P/P	60 - 150
Ibuprofen	82.4	68.8	P/P	50 - 160
Imazapyr	103	90.7	P/P	50 - 150
Imidacloprid	100	102	P/P	60 - 150
Linuron	108	107	P/P	60 - 150
Mandestrobin	99.7	97.9	P/P	50 - 150
MCPP	99.3	95.1	P/P	50 - 150
Naproxen	128	135	P/P	50 - 160
Primidone	107	94.9	P/P	60 - 150
Pyraclostrobin	105	106	P/P	60 - 150
Thiamethoxam	95.3	95.8	P/P	50 - 150
Tolfenpyrad	93.3	94.9	P/P	60 - 150
Triclopyr	91.1	111	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A93099

Included Lab Sample IDs: 2105163, 2105164

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	133	81.4	P/P	60 - 160
Acesulfame K	82.5	133	P/P	60 - 160
Endothall	102	106	P/P	60 - 160
Endothall	96.3	102	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A93103

Included Lab Sample IDs: 2105163, 2105164

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	86.8	89.9	P/P	60 - 160
AMPA	89.9	94.1	P/P	60 - 160
Glufosinate	73.9	78.2	P/P	60 - 160
Glufosinate	78.2	89.0	P/P	60 - 160
Glyphosate	69.9	83.9	P/P	60 - 160
Glyphosate	83.9	87.6	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A93331

Included Lab Sample IDs: 2105163, 2105164

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	64.9	81.3	P/P	60 - 160
Sucralose	88.4	87.8	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 SMP	MS
			LCS			
EPA 8321B	2,4-D	143				0.987
	Acesulfame K	133	65.5	70.8		7.82
	Acetaminophen	95.8	98.2	96.3		1.98
	Acetamiprid	101	89.6	86.3		3.78
	Afidopyropen	89.0	84.0	76.5		9.35
	AMPA	81.2	32.1	30.9		2.63
	Bentazon	127				3.29
	Benzovindiflupyr	107	93.7	95.7		2.13
	Carbamazepine	94.4	76.3	78.4		2.73
	Clothianidin	107	95.2	98.5		3.21
	Dinotefuran	106	99.5	112		9.24
	Diuron	101	78.9	76.1		3.27
	Endothall	97.0	83.2	91.4		9.40
	Fenuron	107	74.2	69.5		6.49
	Fluridone	102	87.0	90.5		2.97
	Glufosinate	78.4	48.8	48.3		0.992
	Glyphosate	67.8	66.1	65.1		1.50
	Hydrocodone	106	99.4	83.9		16.9
	Ibuprofen	93.4	101	101		0.0193
	Imazapyr	93.8	78.7	80.9		1.43
	Imidacloprid	101	164	175		5.51
	Linuron	84.6	75.8	75.4		0.617
	Mandestrobin	104	90.6	87.3		3.66
	MCPP	145	197	202		2.68
	Naproxen	106	111	121		9.06
	Primidone	91.6	90.4	94.5		4.51
	Pyraclostrobin	95.4	87.9	88.6		0.821
	Sucralose	77.0	129	125		2.51
	Thiamethoxam	105	118	126		5.10
	Tolfenpyrad	64.4	64.3	60.0		6.79
	Triclopyr	93.0	113	125		9.89

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2105163, 2105164
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	2105163, 2105164

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	07/23/2019	07/25/2019 10:00	Hoor Shaik	07/26/2019 01:46	Juyoung Kim	2105163
	07/23/2019	07/25/2019 10:00	Hoor Shaik	07/26/2019 02:21	Juyoung Kim	2105164
	07/23/2019	07/25/2019 11:00	Rebecca Ware	07/26/2019 17:27	Rebecca Ware	2105163
	07/23/2019	07/25/2019 11:00	Rebecca Ware	07/26/2019 18:00	Rebecca Ware	2105164
	07/23/2019	07/25/2019 11:00	Rebecca Ware	07/27/2019 17:51	Rebecca Ware	2105163
	07/23/2019	07/25/2019 11:00	Rebecca Ware	07/27/2019 18:32	Rebecca Ware	2105164
	07/23/2019	07/25/2019 11:00	Rebecca Ware	08/06/2019 11:50	Rebecca Ware	2105163
	07/23/2019	07/25/2019 11:00	Rebecca Ware	08/06/2019 14:59	Rebecca Ware	2105164