Chemical Analysis Report

TLH-ROC-2017-12-18-01

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

Event Description: **SMP 2017 kit_b/t/m PCR-FILTER**
Request ID: **RQ-2017-12-04-49**
Customer: **TLH-ROC**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
2600 Blair Stone Rd
Tallahassee, FL 32399
Attn: Michael Eckles

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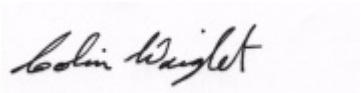
Certified by: Colin Wright, Program Administrator

Date Certified: 27-DEC-2017 13:12



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 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: Lake Overstreet Drain @ N. Meridian Rd. **Collection Date/Time: 12/18/2017 09:10**

Field ID: G1TLHR0069-2017-10_DUP Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954690	EPA 8321B	Sucralose**	0.010	U	ug/L	P336877	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P337156	
		Diuron	8.0E-04	U	ug/L	P337156	
		Fenuron	0.0080	U	ug/L	P337156	
		Imidacloprid	8.0E-04	U	ug/L	P337156	
		Bentazon	8.0E-04	U	ug/L	P337156	
		Linuron	0.0040	U	ug/L	P337156	
		Acetaminophen**	0.0080	U	ug/L	P337156	
		MCPP	0.0020	U	ug/L	P337156	
		Carbamazepine**	4.0E-04	U	ug/L	P337156	
		Triclopyr**	0.0040	U	ug/L	P337156	
		Primidone**	0.0040	U	ug/L	P337156	
		Fluridone**	4.0E-04	U	ug/L	P337156	

Sample Location: Lake Overstreet Drain @ N. Meridian Rd. **Collection Date/Time: 12/18/2017 09:05**

Field ID: G1TLHR0069-2017-10 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954691	EPA 8321B	Sucralose**	0.010	U	ug/L	P336877	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P337156	
		Diuron	8.0E-04	U	ug/L	P337156	
		Fenuron	0.0080	U	ug/L	P337156	
		Imidacloprid	8.0E-04	U	ug/L	P337156	
		Bentazon	8.0E-04	U	ug/L	P337156	
		Linuron	0.0040	U	ug/L	P337156	
		Acetaminophen**	0.0080	U	ug/L	P337156	
		MCPP	0.0020	U	ug/L	P337156	
		Carbamazepine**	4.0E-04	U	ug/L	P337156	
		Triclopyr**	0.0040	U	ug/L	P337156	
		Primidone**	0.0040	U	ug/L	P337156	
		Fluridone**	4.0E-04	U	ug/L	P337156	

Sample Location: Lake Overstreet Drain @ N. Meridian Rd. **Collection Date/Time: 12/18/2017 09:15**

Field ID: G1TLHR0069-2017-10_Blank Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954692	EPA 8321B	Sucralose**	0.010	U	ug/L	P336877	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P337156	
		Diuron	8.0E-04	U	ug/L	P337156	
		Fenuron	0.0080	U	ug/L	P337156	
		Imidacloprid	8.0E-04	U	ug/L	P337156	
		Bentazon	8.0E-04	U	ug/L	P337156	
		Linuron	0.0040	U	ug/L	P337156	
		Acetaminophen**	0.0080	U	ug/L	P337156	

Field ID: G1TLHR0069-2017-10_Blank Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954692	USGS O-2060-01	MCPP	0.0020	U	ug/L	P337156	
		Carbamazepine**	4.0E-04	U	ug/L	P337156	
		Triclopyr**	0.0040	U	ug/L	P337156	
		Primidone**	0.0040	U	ug/L	P337156	
		Fluridone**	4.0E-04	U	ug/L	P337156	

Sample Location: Bear Creek @ SR 267 **Collection Date/Time: 12/18/2017 10:10**

Field ID: G1TLHR0052-2017-10 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954693	EPA 8321B	Sucralose**	0.010	U	ug/L	P336877	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P337156	
		Diuron	8.0E-04	U	ug/L	P337156	
		Fenuron	0.0080	U	ug/L	P337156	
		Imidacloprid	8.0E-04	U	ug/L	P337156	
		Bentazon	8.0E-04	U	ug/L	P337156	
		Linuron	0.0040	U	ug/L	P337156	
		Acetaminophen**	0.0080	U	ug/L	P337156	
		MCPP	0.0020	U	ug/L	P337156	
		Carbamazepine**	4.0E-04	U	ug/L	P337156	
		Triclopyr**	0.0040	U	ug/L	P337156	
		Primidone**	0.0040	U	ug/L	P337156	
		Fluridone**	4.0E-04	U	ug/L	P337156	

Sample Location: Mule Creek @ SR 12 **Collection Date/Time: 12/18/2017 10:45**

Field ID: G1TLHR0063-2017-06 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954694	EPA 8321B	Sucralose**	0.010	U	ug/L	P336877	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P337156	
		Diuron	8.0E-04	U	ug/L	P337156	
		Fenuron	0.0080	U	ug/L	P337156	
		Imidacloprid	8.0E-04	U	ug/L	P337156	
		Bentazon	8.0E-04	U	ug/L	P337156	
		Linuron	0.0040	U	ug/L	P337156	
		Acetaminophen**	0.0080	U	ug/L	P337156	
		MCPP	0.0020	U	ug/L	P337156	
		Carbamazepine**	4.0E-04	U	ug/L	P337156	
		Triclopyr**	0.0040	U	ug/L	P337156	
		Primidone**	0.0040	U	ug/L	P337156	
		Fluridone**	4.0E-04	U	ug/L	P337156	

Sample Location: Sweetwater Creek @ CR270 **Collection Date/Time: 12/18/2017 11:10**

Field ID: G2TLHR0018-2017-04 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes

Field ID: G2TLHR0018-2017-04 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954695	EPA 8321B	Sucralose**	0.010	U	ug/L	P336877	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P337156	
		Diuron	8.0E-04	U	ug/L	P337156	
		Fenuron	0.0080	U	ug/L	P337156	
		Imidacloprid	8.0E-04	U	ug/L	P337156	
		Bentazon	8.0E-04	U	ug/L	P337156	
		Linuron	0.0040	U	ug/L	P337156	
		Acetaminophen**	0.0080	U	ug/L	P337156	
		MCPP	0.0020	U	ug/L	P337156	
		Carbamazepine**	4.0E-04	U	ug/L	P337156	
		Triclopyr**	0.0040	U	ug/L	P337156	
		Primidone**	0.0040	U	ug/L	P337156	
		Fluridone**	4.0E-04	U	ug/L	P337156	

Sample Location: Flat Creek @ CR269 **Collection Date/Time: 12/18/2017 11:40**

Field ID: G2TLHR0020-2017-04 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1954696	EPA 8321B	Sucralose**	0.020	I	ug/L	P336877	
	USGS O-2060-01	2,4-D	0.0020	U	ug/L	P337156	
		Diuron	8.0E-04	U	ug/L	P337156	
		Fenuron	0.0080	U	ug/L	P337156	
		Imidacloprid	8.0E-04	U	ug/L	P337156	
		Bentazon	8.0E-04	U	ug/L	P337156	
		Linuron	0.0040	U	ug/L	P337156	
		Acetaminophen**	0.0080	U	ug/L	P337156	
		MCPP	0.0020	U	ug/L	P337156	
		Carbamazepine**	4.0E-04	U	ug/L	P337156	
		Triclopyr**	0.0040	U	ug/L	P337156	
		Primidone**	0.0040	U	ug/L	P337156	
		Fluridone**	4.0E-04	U	ug/L	P337156	

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P336877

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: USGS O-2060-01
Batch ID: P337156

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

Quality Assurance Report
Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P337156

Component	Result	Code	Units
Carbamazepine	4.0E-04	U	ug/L
Diuron	8.0E-04	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P336877

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	87.8		P	40 - 150

Reference Method: USGS O-2060-01
Batch ID: P337156

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	103		P	40 - 150
Acetaminophen	95.0		P	30 - 150
Bentazon	94.6		P	30 - 150
Carbamazepine	98.5		P	40 - 150
Diuron	83.7		P	40 - 150
Fenuron	103		P	40 - 150
Fluridone	100		P	40 - 150
Imidacloprid	99.8		P	40 - 160
Linuron	90.5		P	40 - 150
MCPP	93.3		P	40 - 150
Primidone	107		P	40 - 150
Triclopyr	90.8		P	40 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P336877

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1953431	Sucralose	64.2	64.3	P/P	40 - 150

Reference Method: USGS O-2060-01
Batch ID: P337156

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954940	2,4-D	82.6	99.4	P/P	40 - 150
1954940	Acetaminophen	111	114	P/P	30 - 150

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P337156

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1954940	Bentazon	53.1	59.6	P/P	30 - 150
1954940	Carbamazepine	96.3	95.0	P/P	40 - 150
1954940	Diuron	80.0	76.1	P/P	40 - 150
1954940	Fenuron	88.8	90.0	P/P	40 - 150
1954940	Fluridone	79.9	77.0	P/P	40 - 150
1954940	Imidacloprid	157	155	P/P	40 - 160
1954940	Linuron	85.5	76.0	P/P	40 - 150
1954940	MCPP	65.6	72.0	P/P	40 - 150
1954940	Primidone	101	110	P/P	40 - 150
1954940	Triclopyr	62.5	71.9	P/P	40 - 150

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P336877

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1953431	Sucralose	0.230	Spike	P	0 - 30

Reference Method: USGS O-2060-01
Batch ID: P337156

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1954940	2,4-D	12.8	Spike	P	0 - 30
1954940	Acetaminophen	2.56	Spike	P	0 - 30
1954940	Bentazon	7.08	Spike	P	0 - 30
1954940	Carbamazepine	1.30	Spike	P	0 - 30
1954940	Diuron	4.61	Spike	P	0 - 30
1954940	Fenuron	1.32	Spike	P	0 - 30
1954940	Fluridone	3.18	Spike	P	0 - 30
1954940	Imidacloprid	1.02	Spike	P	0 - 30
1954940	Linuron	11.7	Spike	P	0 - 30
1954940	MCPP	9.42	Spike	P	0 - 30
1954940	Primidone	8.67	Spike	P	0 - 30
1954940	Triclopyr	14.0	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: 1954690
Field Sample ID: G1TLHR0069-2017-10_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	99.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	98.3	P	30 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 1954690
Field Sample ID: G1TLHR0069-2017-10_DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	81.6	P	30 - 160
EPA 8321B	Primidone-d5	103	P	30 - 160
EPA 8321B	Sucralose-d6	62.3	P	40 - 160
USGS O-2060-01	2,4-D-d3	69.5	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	99.0	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	98.3	P	30 - 160
USGS O-2060-01	Diuron-d6	81.6	P	30 - 160
USGS O-2060-01	Primidone-d5	103	P	30 - 160
USGS O-2060-01	Sucralose-d6	62.3	P	40 - 160

Lab Sample ID: 1954691
Field Sample ID: G1TLHR0069-2017-10

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	112	P	30 - 160
EPA 8321B	Carbamazepine-d10	107	P	30 - 160
EPA 8321B	Diuron-d6	89.6	P	30 - 160
EPA 8321B	Primidone-d5	117	P	30 - 160
EPA 8321B	Sucralose-d6	67.2	P	40 - 160
USGS O-2060-01	2,4-D-d3	85.4	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	112	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	107	P	30 - 160
USGS O-2060-01	Diuron-d6	89.6	P	30 - 160
USGS O-2060-01	Primidone-d5	117	P	30 - 160
USGS O-2060-01	Sucralose-d6	67.2	P	40 - 160

Lab Sample ID: 1954692
Field Sample ID: G1TLHR0069-2017-10_Blank

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	105	P	30 - 160
EPA 8321B	Carbamazepine-d10	106	P	30 - 160
EPA 8321B	Diuron-d6	80.2	P	30 - 160
EPA 8321B	Primidone-d5	107	P	30 - 160
EPA 8321B	Sucralose-d6	96.2	P	40 - 160
USGS O-2060-01	2,4-D-d3	77.5	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	105	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	106	P	30 - 160
USGS O-2060-01	Diuron-d6	80.2	P	30 - 160
USGS O-2060-01	Primidone-d5	107	P	30 - 160
USGS O-2060-01	Sucralose-d6	96.2	P	40 - 160

Lab Sample ID: 1954693
Field Sample ID: G1TLHR0052-2017-10

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	99.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	102	P	30 - 160
EPA 8321B	Diuron-d6	80.1	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	72.7	P	40 - 160
USGS O-2060-01	2,4-D-d3	95.1	P	30 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 1954693
Field Sample ID: G1TLHR0052-2017-10

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Acetaminophen-d4	99.7	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	102	P	30 - 160
USGS O-2060-01	Diuron-d6	80.1	P	30 - 160
USGS O-2060-01	Primidone-d5	111	P	30 - 160
USGS O-2060-01	Sucralose-d6	72.7	P	40 - 160

Lab Sample ID: 1954694
Field Sample ID: G1TLHR0063-2017-06

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	102	P	30 - 160
EPA 8321B	Carbamazepine-d10	104	P	30 - 160
EPA 8321B	Diuron-d6	91.5	P	30 - 160
EPA 8321B	Primidone-d5	111	P	30 - 160
EPA 8321B	Sucralose-d6	78.2	P	40 - 160
USGS O-2060-01	2,4-D-d3	99.1	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	102	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	104	P	30 - 160
USGS O-2060-01	Diuron-d6	91.5	P	30 - 160
USGS O-2060-01	Primidone-d5	111	P	30 - 160
USGS O-2060-01	Sucralose-d6	78.2	P	40 - 160

Lab Sample ID: 1954695
Field Sample ID: G2TLHR0018-2017-04

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	110	P	30 - 160
EPA 8321B	Carbamazepine-d10	117	P	30 - 160
EPA 8321B	Diuron-d6	98.9	P	30 - 160
EPA 8321B	Primidone-d5	122	P	30 - 160
EPA 8321B	Sucralose-d6	85.9	P	40 - 160
USGS O-2060-01	2,4-D-d3	95.1	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	110	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	117	P	30 - 160
USGS O-2060-01	Diuron-d6	98.9	P	30 - 160
USGS O-2060-01	Primidone-d5	122	P	30 - 160
USGS O-2060-01	Sucralose-d6	85.9	P	40 - 160

Lab Sample ID: 1954696
Field Sample ID: G2TLHR0020-2017-04

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	102	P	30 - 160
EPA 8321B	Carbamazepine-d10	105	P	30 - 160
EPA 8321B	Diuron-d6	86.2	P	30 - 160
EPA 8321B	Primidone-d5	110	P	30 - 160
EPA 8321B	Sucralose-d6	88.9	P	40 - 160
USGS O-2060-01	2,4-D-d3	87.2	P	30 - 160
USGS O-2060-01	Acetaminophen-d4	102	P	30 - 160
USGS O-2060-01	Carbamazepine-d10	105	P	30 - 160
USGS O-2060-01	Diuron-d6	86.2	P	30 - 160
USGS O-2060-01	Primidone-d5	110	P	30 - 160

Quality Assurance Report
Surrogates

Lab Sample ID: 1954696
Field Sample ID: G2TLHR0020-2017-04

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Sucralose-d6	88.9	P	40 - 160

Quality Assurance Report
Calibration Verification

Reference Method: EPA 8321B
Run ID: A81055
Included Lab Sample IDs: 1954690, 1954691, 1954692, 1954693, 1954694, 1954695, 1954696

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	77.8	90.1	P/P	60 - 150
Sucralose	90.1	85.4	P/P	60 - 150

Reference Method: USGS O-2060-01
Run ID: A81093
Included Lab Sample IDs: 1954690, 1954691, 1954692, 1954693, 1954694, 1954695, 1954696

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	98.8	102	P/P	50 - 150
Acetaminophen	102	103	P/P	60 - 150
Acetaminophen	95.9	102	P/P	60 - 150
Bentazon	103	102	P/P	50 - 150
Carbamazepine	100	105	P/P	60 - 150
Carbamazepine	105	106	P/P	60 - 150
Diuron	101	108	P/P	60 - 150
Diuron	98.6	101	P/P	60 - 150
Fenuron	105	104	P/P	60 - 150
Fenuron	96.6	105	P/P	60 - 150
Fluridone	106	106	P/P	60 - 160
Fluridone	99.0	106	P/P	60 - 160
Imidacloprid	102	95.1	P/P	60 - 150
Imidacloprid	97.7	102	P/P	60 - 150
Linuron	101	106	P/P	60 - 150
Linuron	95.4	101	P/P	60 - 150
MCPP	99.2	97.6	P/P	50 - 150
Primidone	93.2	95.0	P/P	60 - 150
Primidone	95.0	104	P/P	60 - 150
Triclopyr	94.2	91.2	P/P	50 - 150

* 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	Sucralose	87.8	64.2	64.3			0.230
USGS O-2060-01	2,4-D	103	99.4	82.6			12.8
	Acetaminophen	95.0	111	114			2.56

Quality Assurance Report
Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision		
					LCS	SMP	MS
USGS O-2060-01	Bentazon	94.6	59.6	53.1			7.08
	Carbamazepine	98.5	96.3	95.0			1.30
	Diuron	83.7	80.0	76.1			4.61
	Fenuron	103	88.8	90.0			1.32
	Fluridone	100	79.9	77.0			3.18
	Imidacloprid	99.8	157	155			1.02
	Linuron	90.5	85.5	76.0			11.7
	MCPP	93.3	72.0	65.6			9.42
	Primidone	107	101	110			8.67
	Triclopyr	90.8	71.9	62.5			14.0

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 8321B / E31780	Analysis of sucralose in water matrices by HPLC/MS/MS	1954690, 1954691, 1954692, 1954693, 1954694, 1954695, 1954696
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1954690, 1954691, 1954692, 1954693, 1954694, 1954695, 1954696
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1954690, 1954691, 1954692, 1954693, 1954694, 1954695, 1954696

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	12/18/2017	12/20/2017	Juyoung Kim	12/21/2017	Juyoung Kim	1954690, 1954691, 1954692, 1954693, 1954694, 1954695, 1954696
USGS O-2060-01	12/18/2017	12/20/2017	Hoor Shaik	12/20/2017	Julie Michelle Frank	1954690, 1954691, 1954692, 1954693, 1954694, 1954695
	12/18/2017	12/20/2017	Hoor Shaik	12/21/2017	Julie Michelle Frank	1954690, 1954691, 1954692, 1954693, 1954694, 1954695, 1954696