

Chemical Analysis Report

NE-DIST-2016-11-29-01

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

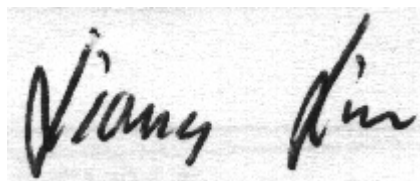
Event Description: **Di water check-NE**
Request ID: **RQ-2016-11-28-69**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Jacksonville, FL 32256-7577
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 23-DEC-2016 10:18

A handwritten signature in black ink, appearing to read "Liang Lin", is written on a light-colored, textured 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: Metals, 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: DI WATER CHECK NE

Collection Date/Time: 11/28/2016 10:00

Field ID: DI WATER CHECK NE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1852727	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P315863	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P316794	
		Sulfate	0.20	U	mg SO4/L	P316795	
	SM 2120 B	Color (true)	2.5	U	PCU	P315867	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P316060	
	SM 2540 C-97	TDS	15	U	mg/L	P316603	
	SM 2540 D-97	TSS	2	U	mg/L	P316579	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P316062	
1852728	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P316422	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P316364	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P316176	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P316164	
	SM 5310 B-00	Organic Carbon	0.50	U	mg C/L	P315950	
1852729	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P315857	
1852731	EPA 8321B	Glyphosate**	10	U	ug/L	P316027	
	USGS O-2060-01	2,4-D	0.0040	U	ug/L	P316160	
		Diuron	0.0040	U	ug/L	P316160	
		2,4-DB	0.0020	UJ	ug/L	P316160	RPD
		Fenuron	0.0080	UJ	ug/L	P316160	MS
		2,4,5-T	0.0020	U	ug/L	P316160	
		Acifluorfen	0.0020	UJ	ug/L	P316160	RPD
		Imidacloprid	0.0040	U	ug/L	P316160	
		Bentazon	0.0020	U	ug/L	P316160	
		Linuron	0.0040	U	ug/L	P316160	
		Dichlorprop	0.0020	U	ug/L	P316160	
		MCPA	0.0040	U	ug/L	P316160	
		Acetaminophen**	0.0040	UJ	ug/L	P316160	MS
		MCPP	0.0040	U	ug/L	P316160	
		Carbamazepine**	4.0E-04	UJ	ug/L	P316160	MS
		Silvex	0.0020	U	ug/L	P316160	
		Primidone**	0.0080	U	ug/L	P316160	
		Fluridone**	4.0E-04	U	ug/L	P316160	
1852732	EPA 8321B	Pyraclostrobin**	0.0020	U	ug/L	P316008	
1852733	DEP SOP: GC-011-5 (based on EPA 608 and 617)	Aldrin	0.0020	U	ug/L	P316010	
		Alpha-BHC	0.0020	U	ug/L	P316010	
		Beta-BHC	0.0020	U	ug/L	P316010	
		Delta-BHC	0.0020	U	ug/L	P316010	
		Gamma-BHC	0.0020	U	ug/L	P316010	
		Carbophenothion	0.0059	UJ	ug/L	P316010	CCV
		Chlordane	0.020	U	ug/L	P316010	
		Chlorothalonil	0.0078	UJ	ug/L	P316010	CCV
		Cypermethrin	0.012	U	ug/L	P316010	

Field ID: DI WATER CHECK NE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1852733	DEP SOP: GC-011-5 (based on EPA 608 and 617)	DDD-p,p'	0.0039	UJ	ug/L	P316010	CCV
		DDE-p,p'	0.0039	U	ug/L	P316010	
		DDT-p,p'	0.0039	U	ug/L	P316010	
		Dicofol	0.024	U	ug/L	P316010	
		Dieldrin	0.0020	U	ug/L	P316010	
		Endosulfan I	0.0020	U	ug/L	P316010	
		Endosulfan II	0.0020	U	ug/L	P316010	
		Endosulfan Sulfate	0.0039	U	ug/L	P316010	
		Endrin	0.0039	U	ug/L	P316010	
		Endrin Aldehyde	0.0039	U	ug/L	P316010	
		Heptachlor	0.0020	U	ug/L	P316010	
		Heptachlor Epoxide	0.0020	U	ug/L	P316010	
		Methoxychlor	0.0098	UJ	ug/L	P316010	CCV
		Mirex	0.0039	U	ug/L	P316010	
		Permethrin	0.0098	U	ug/L	P316010	
		Toxaphene	0.098	U	ug/L	P316010	
		PCB-1016	0.020	U	ug/L	P316010	
		PCB-1221	0.020	U	ug/L	P316010	
		PCB-1232	0.020	U	ug/L	P316010	
		PCB-1242	0.020	U	ug/L	P316010	
		PCB-1248	0.020	U	ug/L	P316010	
		PCB-1254	0.020	U	ug/L	P316010	
		PCB-1260	0.020	U	ug/L	P316010	
		Trifluralin	0.0078	U	ug/L	P316010	
		Hexachlorobenzene**	0.0020	U	ug/L	P316010	
		Hexachlorocyclopentadiene**	0.0078	U	ug/L	P316010	
		Alpha-Chlordane	0.0020	U	ug/L	P316010	
		Gamma-Chlordane	0.0020	U	ug/L	P316010	
		Endrin Ketone	0.0039	UJ	ug/L	P316010	CCV
1852734	EPA 8270D	Ametryn	0.32	U	ng/L	P316016	
		Atrazine	0.25	U	ng/L	P316016	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P316016	
		Chlorpyrifos Methyl	0.098	U	ng/L	P316016	
		Disulfoton	0.32	U	ng/L	P316016	
		Ethion	0.15	U	ng/L	P316016	
		Ethoprop	0.098	U	ng/L	P316016	
		Hexazinone	0.49	U	ng/L	P316016	
		Malathion	0.34	UJ	ng/L	P316016	LCS
		Metribuzin	0.20	U	ng/L	P316016	
		Mevinphos	0.49	U	ng/L	P316016	
		Norflurazon	0.49	U	ng/L	P316016	
		Phorate	0.25	UJ	ng/L	P316016	MS
		Prometryn	0.20	U	ng/L	P316016	
		Simazine	0.49	U	ng/L	P316016	

Field ID: DI WATER CHECK NE

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1852734	EPA 8270D	Atrazine Desethyl	1.5	U	ng/L	P316016	MS
		Prometon	0.88	U	ng/L	P316016	
		Fipronil	0.25	U	ng/L	P316016	
		Molinate	0.29	U	ng/L	P316016	
		Pendimethalin	1.5	U	ng/L	P316016	
		Terbufos	0.098	U	ng/L	P316016	
		EPTC	1.2	U	ng/L	P316016	
		Terbutylazine	0.42	U	ng/L	P316016	
		Bromacil	0.49	U	ng/L	P316016	
		Fipronil Sulfide	0.15	U	ng/L	P316016	
		Fipronil Sulfone	0.15	U	ng/L	P316016	
		Alachlor	0.25	U	ng/L	P316016	
		Azinphos Methyl	2.2	U	ng/L	P316016	
		Butylate	0.39	U	ng/L	P316016	
		Demeton	0.98	U	ng/L	P316016	
		Diazinon	0.12	U	ng/L	P316016	
		Fenamiphos	0.25	U	ng/L	P316016	
		Fonofos	0.20	U	ng/L	P316016	
		Metalaxyl	0.20	UJ	ng/L	P316016	
		Metolachlor	0.25	U	ng/L	P316016	
		Acetochlor	0.25	U	ng/L	P316016	
		Cyanazine	0.49	U	ng/L	P316016	
		Parathion Ethyl	0.25	U	ng/L	P316016	
		Parathion Methyl	0.25	U	ng/L	P316016	
1852735	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P316023	
		Iron	30	U	ug/L	P316023	
		Magnesium	0.040	U	mg/L	P316023	
		Potassium	0.30	U	mg/L	P316023	
		Sodium	0.50	U	mg/L	P316023	
	EPA 200.8 Rev. 5.4	Arsenic	0.050	U	ug/L	P316023	
		Cadmium	0.020	U	ug/L	P316023	
		Chromium	0.050	U	ug/L	P316023	
		Copper	0.10	U	ug/L	P316023	
		Lead	0.050	U	ug/L	P316023	
		Nickel	0.050	U	ug/L	P317002	
		Silver	0.0050	U	ug/L	P316023	
		Zinc	1.0	U	ug/L	P316023	

Ref. Method and Comment:

EPA 300.0 Rev. 2.1: Sulfate: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

USGS O-2060-01: Results confirmed in re-extraction. Refer to the narrative for an explanation of QC Codes.

DEP SOP: GC-011-5 (based on EPA 608 and 617): Refer to the narrative for an explanation of QC Codes.

EPA 8270D: Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)

Batch ID: P316010

Component	Result	Code	Units
Aldrin	0.0020	U	ug/L
Alpha-BHC	0.0020	U	ug/L
Alpha-Chlordane	0.0020	U	ug/L
Beta-BHC	0.0020	U	ug/L
Carbophenothion	0.0060	U	ug/L
Chlordane	0.020	U	ug/L
Chlorothalonil	0.0080	U	ug/L
Cypermethrin	0.012	U	ug/L
DDD-p,p'	0.0040	U	ug/L
DDE-p,p'	0.0040	U	ug/L
DDT-p,p'	0.0040	U	ug/L
Delta-BHC	0.0020	U	ug/L
Dicofol	0.024	U	ug/L
Dieldrin	0.0020	U	ug/L
Endosulfan I	0.0020	U	ug/L
Endosulfan II	0.0020	U	ug/L
Endosulfan Sulfate	0.0040	U	ug/L
Endrin	0.0040	U	ug/L
Endrin Aldehyde	0.0040	U	ug/L
Endrin Ketone	0.0040	U	ug/L
Gamma-BHC	0.0020	U	ug/L
Gamma-Chlordane	0.0020	U	ug/L
Heptachlor	0.0020	U	ug/L
Heptachlor Epoxide	0.0020	U	ug/L
Hexachlorobenzene	0.0020	U	ug/L
Hexachlorocyclopentadiene	0.0080	U	ug/L
Methoxychlor	0.010	U	ug/L
Mirex	0.0040	U	ug/L
PCB-1016	0.020	U	ug/L
PCB-1221	0.020	U	ug/L
PCB-1232	0.020	U	ug/L
PCB-1242	0.020	U	ug/L
PCB-1248	0.020	U	ug/L
PCB-1254	0.020	U	ug/L
PCB-1260	0.020	U	ug/L
Permethrin	0.010	U	ug/L
Toxaphene	0.10	U	ug/L
Trifluralin	0.0080	U	ug/L

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P315863

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P316023

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P316023

Component	Result	Code	Units
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P316023

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.050	U	ug/L
Copper	0.10	U	ug/L
Lead	0.050	U	ug/L
Silver	0.0050	U	ug/L
Zinc	1.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P317002

Component	Result	Code	Units
Nickel	0.050	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P316794

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P316795

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P316422

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316364

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P316176

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P316164

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P315857

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8270D
 Batch ID: P316016

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	0.50	U	ng/L
Demeton	1.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.32	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.5	U	ng/L
Phorate	0.25	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P316008

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P316027

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Reference Method: SM 2120 B
Batch ID: P315867

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P316060

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-97
Batch ID: P316603

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P316579

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P316062

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P315950

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: USGS O-2060-01
Batch ID: P316160

Component	Result	Code	Units
2,4,5-T	0.0020	U	ug/L
2,4-D	0.0040	U	ug/L
2,4-DB	0.0020	U	ug/L
Acetaminophen	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P316160

Component	Result	Code	Units
Acifluorfen	0.0020	U	ug/L
Bentazon	0.0020	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Dichlorprop	0.0020	U	ug/L
Diuron	0.0040	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	0.0040	U	ug/L
Linuron	0.0040	U	ug/L
MCPA	0.0040	U	ug/L
MCPP	0.0040	U	ug/L
Primidone	0.0080	U	ug/L
Silvex	0.0020	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P316010

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
PCB-1016	112	108	P/P	70 - 130
PCB-1260	102	89.8	P/P	70 - 130

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P316023

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	103		P	85 - 115
Iron	107		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	103		P	85 - 115
Sodium	104		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P316023

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	99.6		P	85 - 115
Cadmium	101		P	85 - 115
Chromium	101		P	85 - 115
Copper	94.5		P	85 - 115
Lead	94.6		P	85 - 115
Silver	98.0		P	85 - 115
Zinc	98.0		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P317002

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Nickel	101		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P316794

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

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P316795

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	98.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P316422

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	105		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P316364

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

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P316176

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P316164

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P315857

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.2		P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P316016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	81.5	84.2	P/P	80 - 119
Alachlor	83.5	84.2	P/P	80 - 120
Ametryn	97.5	99.6	P/P	60 - 135
Atrazine	95.6	96.1	P/P	72 - 121
Atrazine Desethyl	81.1	82.6	P/P	14 - 124
Azinphos Methyl	96.1	97.5	P/P	74 - 186
Bromacil	90.0	92.3	P/P	38 - 125
Butylate	63.3	56.0	P/P	34 - 88.0
Chlorpyrifos Ethyl	99.9	102	P/P	53 - 108
Chlorpyrifos Methyl	88.6	92.7	P/P	29 - 119

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P316016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cyanazine	140	148	P/P	30 - 240
Demeton	85.5	93.8	P/P	35 - 127
Diazinon	86.2	91.3	P/P	75 - 121
Disulfoton	80.6	101	P/P	40 - 141
EPTC	56.3	53.5	P/P	36 - 96.0
Ethion	99.4	106	P/P	64 - 127
Ethoprop	82.8	84.9	P/P	65 - 108
Fenamiphos	103	120	P/P	62 - 140
Fipronil	73.9	77.7	P/P	59 - 127
Fipronil Sulfide	83.0	89.5	P/P	55 - 126
Fipronil Sulfone	76.4	81.2	P/P	56 - 127
Fonofos	87.0	92.1	P/P	64 - 111
Hexazinone	92.7	93.8	P/P	43 - 153
Malathion	179	180	F/F	70 - 129
Metaxyl	92.1	87.7	P/P	49 - 135
Metolachlor	91.0	93.2	P/P	81 - 120
Metribuzin	102	112	P/P	66 - 133
Mevinphos	94.7	96.5	P/P	33 - 128
Molinate	75.7	73.0	P/P	46 - 101
Norflurazon	115	124	P/P	62 - 131
Parathion Ethyl	87.0	91.6	P/P	80 - 109
Parathion Methyl	80.6	83.7	P/P	76 - 126
Pendimethalin	55.0	59.9	P/P	47 - 137
Phorate	95.9	95.4	P/P	51 - 115
Prometon	100	97.0	P/P	67 - 123
Prometryn	93.2	92.6	P/P	66 - 122
Simazine	90.3	95.9	P/P	60 - 134
Terbufos	83.6	90.5	P/P	56 - 116
Terbutylazine	91.3	91.8	P/P	77 - 114

Reference Method: EPA 8321B
Batch ID: P316008

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	68.0		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P316027

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	63.2		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P316060

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.9		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P316062

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P316062

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P315950

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.6		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P316160

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4,5-T	105		P	40 - 140
2,4-D	110		P	40 - 140
2,4-DB	62.8		P	40 - 140
Acetaminophen	124		P	40 - 140
Acifluorfen	132		P	40 - 140
Bentazon	104		P	40 - 140
Carbamazepine	136		P	40 - 140
Dichlorprop	103		P	40 - 140
Diuron	92.0		P	40 - 140
Fenuron	108		P	40 - 140
Fluridone	104		P	40 - 140
Imidacloprid	99.2		P	40 - 160
Linuron	112		P	40 - 140
MCPA	104		P	40 - 140
MCPP	92.8		P	40 - 140
Primidone	104		P	40 - 140
Silvex	114		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
Batch ID: P316010

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1853057	PCB-1016	103	95.5	P/P	70 - 130
1853057	PCB-1260	96.4	83.5	P/P	70 - 130

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P316023

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852754	Calcium	102		P	80 - 120
1852754	Iron	104		P	80 - 120
1852754	Magnesium	102		P	80 - 120
1852754	Potassium	98.8		P	80 - 120
1852754	Sodium	105		P	80 - 120
1852821	Calcium	103		P	80 - 120
1852821	Iron	107	108	P/P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P316023

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852821	Magnesium	103		P	80 - 120
1852821	Potassium	103	103	P/P	80 - 120
1852821	Sodium	107	103	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P316023

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852754	Arsenic	102		P	80 - 120
1852754	Cadmium	105		P	80 - 120
1852754	Chromium	102		P	80 - 120
1852754	Copper	93.5		P	80 - 120
1852754	Lead	95.6		P	80 - 120
1852754	Silver	99.0		P	80 - 120
1852754	Zinc	98.0		P	80 - 120
1852821	Arsenic	99.5	98.8	P/P	80 - 120
1852821	Cadmium	102	100	P/P	80 - 120
1852821	Chromium	101	100	P/P	80 - 120
1852821	Copper	89.9	90.0	P/P	80 - 120
1852821	Lead	93.6	93.3	P/P	80 - 120
1852821	Silver	98.4	98.8	P/P	80 - 120
1852821	Zinc	95.6	94.8	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P317002

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1857001	Nickel	101		P	80 - 120
1857539	Nickel	102	105	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P316794

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852981	Chloride	101		P	90 - 110
1852982	Chloride	99.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P316795

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852981	Sulfate	97.9		P	90 - 110
1852982	Sulfate	96.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P316422

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852713	Ammonia-N	99.0	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
 Batch ID: P316364

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852271	Kjeldahl Nitrogen	103	98.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
 Batch ID: P316176

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852528	NO2NO3-N	99.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P316164

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852713	Total-P	107	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P315857

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852606	O-Phosphate-P	96.4	97.1	P/P	90 - 110

Reference Method: EPA 8270D
 Batch ID: P316016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852734	Acetochlor	87.8	102	P/P	77 - 125
1852734	Alachlor	89.8	107	P/P	75 - 127
1852734	Ametryn	107	137	P/P	53 - 150
1852734	Atrazine	94.3	101	P/P	70 - 126
1852734	Atrazine Desethyl	68.6	74.6	P/P	8.0 - 105
1852734	Azinphos Methyl	104	126	P/P	63 - 204
1852734	Bromacil	84.6	91.7	P/P	43 - 132
1852734	Butylate	66.9	67.8	P/P	7.0 - 87.0
1852734	Chlorpyrifos Ethyl	92.1	87.5	P/P	53 - 111
1852734	Chlorpyrifos Methyl	87.0	85.3	P/P	38 - 117
1852734	Cyanazine	146	167	P/P	18 - 222
1852734	Demeton	89.6	91.1	P/P	10 - 157
1852734	Diazinon	91.7	105	P/P	73 - 127
1852734	Disulfoton	88.5	87.1	P/P	43 - 141
1852734	EPTC	62.0	64.4	P/P	11 - 86.0
1852734	Ethion	104	110	P/P	68 - 130
1852734	Ethoprop	90.9	92.2	P/P	60 - 108
1852734	Fenamiphos	105	110	P/P	56 - 139
1852734	Fipronil	84.3	107	P/P	29 - 143
1852734	Fipronil Sulfide	79.3	87.6	P/P	35 - 129
1852734	Fipronil Sulfone	77.0	84.2	P/P	16 - 146
1852734	Fonofos	92.0	91.0	P/P	59 - 112
1852734	Hexazinone	89.2	92.3	P/P	68 - 145
1852734	Malathion	103	93.5	P/P	69 - 131
1852734	Metalaxyl	93.8	120	P/F	67 - 119
1852734	Metolachlor	94.9	106	P/P	77 - 124
1852734	Metribuzin	98.8	83.3	P/P	63 - 134
1852734	Mevinphos	100	100	P/P	40 - 127

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
 Batch ID: P316016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852734	Molinate	81.0	90.6	P/P	27 - 98.0
1852734	Norflurazon	113	97.8	P/P	39 - 141
1852734	Parathion Ethyl	88.8	91.4	P/P	74 - 113
1852734	Parathion Methyl	82.1	80.4	P/P	61 - 133
1852734	Pendimethalin	57.8	68.2	P/P	26 - 179
1852734	Phorate	100	126	P/F	44 - 126
1852734	Prometon	100	104	P/P	43 - 147
1852734	Prometryn	94.9	115	P/P	68 - 126
1852734	Simazine	113	108	P/P	47 - 156
1852734	Terbufos	90.8	94.1	P/P	53 - 125
1852734	Terbutylazine	92.2	103	P/P	76 - 113

Reference Method: EPA 8321B
 Batch ID: P316008

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852732	Pyraclostrobin	62.8	59.2	P/P	40 - 140

Reference Method: EPA 8321B
 Batch ID: P316027

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852731	Glyphosate	67.6	64.4	P/P	40 - 140

Reference Method: SM 4500 F-C-97
 Batch ID: P316062

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852741	Fluoride	99.3	99.9	P/P	91 - 105

Reference Method: SM 5310 B-00
 Batch ID: P315950

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852649	Organic Carbon	95.5	96.1	P/P	85 - 115

Reference Method: USGS O-2060-01
 Batch ID: P316160

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852731	2,4,5-T	103	102	P/P	40 - 140
1852731	2,4-D	115	119	P/P	40 - 140
1852731	2,4-DB	70.8	122	P/P	40 - 140
1852731	Acetaminophen	162	171	F/F	40 - 140
1852731	Acifluorfen	136	81.2	P/P	40 - 140
1852731	Bentazon	101	103	P/P	40 - 140
1852731	Carbamazepine	140	149	F/F	40 - 140
1852731	Dichlorprop	88.0	88.8	P/P	40 - 140
1852731	Diuron	106	102	P/P	40 - 140
1852731	Fenuron	31.5	28.9	F/F	40 - 140
1852731	Fluridone	114	108	P/P	40 - 140
1852731	Imidacloprid	98.0	86.8	P/P	40 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
 Batch ID: P316160

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1852731	Linuron	90.0	111	P/P	40 - 140
1852731	MCPA	98.8	105	P/P	40 - 140
1852731	MCPD	94.0	103	P/P	40 - 140
1852731	Primidone	93.2	123	P/P	40 - 140
1852731	Silvex	117	122	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)
 Batch ID: P316010

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1853057	PCB-1016	6.15	Spike	P	0 - 30
1853057	PCB-1260	13.3	Spike	P	0 - 30
LFB	PCB-1016	3.47	LCS	P	0 - 30
LFB	PCB-1260	12.8	LCS	P	0 - 30

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P315863

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852675	Turbidity	2.17	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P316023

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852821	Calcium	1.63	Spike	P	0 - 20
1852821	Iron	0.461	Spike	P	0 - 20
1852821	Magnesium	0.972	Spike	P	0 - 20
1852821	Potassium	0.130	Spike	P	0 - 20
1852821	Sodium	2.00	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P316023

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852821	Arsenic	0.777	Spike	P	0 - 20
1852821	Cadmium	1.29	Spike	P	0 - 20
1852821	Chromium	0.682	Spike	P	0 - 20
1852821	Copper	0.0589	Spike	P	0 - 20
1852821	Lead	0.369	Spike	P	0 - 20
1852821	Silver	0.433	Spike	P	0 - 20
1852821	Zinc	0.859	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P317002

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1857539	Nickel	2.73	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P316794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852981	Chloride	0.0564	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P316422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852713	Ammonia-N	1.17	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P316364

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852271	Kjeldahl Nitrogen	3.19	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P316176

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852528	NO2NO3-N	0.748	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P316164

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852713	Total-P	1.66	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P315857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852606	O-Phosphate-P	0.658	Spike	P	0 - 20

Reference Method: EPA 8270D
Batch ID: P316016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852734	Acetochlor	14.9	Spike	P	0 - 30
1852734	Alachlor	17.4	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P316016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852734	Ametryn	25.0	Spike	P	0 - 30
1852734	Atrazine	7.37	Spike	P	0 - 30
1852734	Atrazine Desethyl	8.38	Spike	P	0 - 30
1852734	Azinphos Methyl	19.9	Spike	P	0 - 30
1852734	Bromacil	8.08	Spike	P	0 - 30
1852734	Butylate	1.35	Spike	P	0 - 30
1852734	Chlorpyrifos Ethyl	5.03	Spike	P	0 - 30
1852734	Chlorpyrifos Methyl	2.02	Spike	P	0 - 30
1852734	Cyanazine	13.4	Spike	P	0 - 30
1852734	Demeton	1.57	Spike	P	0 - 30
1852734	Diazinon	13.7	Spike	P	0 - 30
1852734	Disulfoton	1.58	Spike	P	0 - 30
1852734	EPTC	3.74	Spike	P	0 - 30
1852734	Ethion	5.87	Spike	P	0 - 30
1852734	Ethoprop	1.46	Spike	P	0 - 30
1852734	Fenamiphos	4.63	Spike	P	0 - 30
1852734	Fipronil	24.1	Spike	P	0 - 30
1852734	Fipronil Sulfide	9.96	Spike	P	0 - 30
1852734	Fipronil Sulfone	9.00	Spike	P	0 - 30
1852734	Fonofos	1.08	Spike	P	0 - 30
1852734	Hexazinone	3.41	Spike	P	0 - 30
1852734	Malathion	9.49	Spike	P	0 - 30
1852734	Metaxyl	24.5	Spike	P	0 - 30
1852734	Metolachlor	11.2	Spike	P	0 - 30
1852734	Metribuzin	17.0	Spike	P	0 - 30
1852734	Mevinphos	0.391	Spike	P	0 - 30
1852734	Molinate	11.1	Spike	P	0 - 30
1852734	Norflurazon	14.3	Spike	P	0 - 30
1852734	Parathion Ethyl	2.87	Spike	P	0 - 30
1852734	Parathion Methyl	2.17	Spike	P	0 - 30
1852734	Pendimethalin	16.6	Spike	P	0 - 30
1852734	Phorate	22.7	Spike	P	0 - 30
1852734	Prometon	3.95	Spike	P	0 - 30
1852734	Prometryn	19.5	Spike	P	0 - 30
1852734	Simazine	4.51	Spike	P	0 - 30
1852734	Terbufos	3.53	Spike	P	0 - 30
1852734	Terbutylazine	10.6	Spike	P	0 - 30
LFB	Acetochlor	3.31	LCS	P	0 - 30
LFB	Alachlor	0.908	LCS	P	0 - 30
LFB	Ametryn	2.15	LCS	P	0 - 30
LFB	Atrazine	0.505	LCS	P	0 - 30
LFB	Atrazine Desethyl	1.84	LCS	P	0 - 30
LFB	Azinphos Methyl	1.45	LCS	P	0 - 30
LFB	Bromacil	2.54	LCS	P	0 - 30
LFB	Butylate	12.3	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	1.58	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	4.57	LCS	P	0 - 30
LFB	Cyanazine	5.03	LCS	P	0 - 30
LFB	Demeton	9.17	LCS	P	0 - 30
LFB	Diazinon	5.70	LCS	P	0 - 30
LFB	Disulfoton	22.5	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P316016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	EPTC	5.06	LCS	P	0 - 30
LFB	Ethion	6.12	LCS	P	0 - 30
LFB	Ethoprop	2.50	LCS	P	0 - 30
LFB	Fenamiphos	15.7	LCS	P	0 - 30
LFB	Fipronil	4.96	LCS	P	0 - 30
LFB	Fipronil Sulfide	7.49	LCS	P	0 - 30
LFB	Fipronil Sulfone	6.19	LCS	P	0 - 30
LFB	Fonofos	5.76	LCS	P	0 - 30
LFB	Hexazinone	1.07	LCS	P	0 - 30
LFB	Malathion	0.766	LCS	P	0 - 30
LFB	Metalaxyl	4.91	LCS	P	0 - 30
LFB	Metolachlor	2.36	LCS	P	0 - 30
LFB	Metribuzin	9.39	LCS	P	0 - 30
LFB	Mevinphos	1.91	LCS	P	0 - 30
LFB	Molinate	3.63	LCS	P	0 - 30
LFB	Norflurazon	7.06	LCS	P	0 - 30
LFB	Parathion Ethyl	5.13	LCS	P	0 - 30
LFB	Parathion Methyl	3.75	LCS	P	0 - 30
LFB	Pendimethalin	8.52	LCS	P	0 - 30
LFB	Phorate	0.477	LCS	P	0 - 30
LFB	Prometon	3.14	LCS	P	0 - 30
LFB	Prometryn	0.691	LCS	P	0 - 30
LFB	Simazine	6.05	LCS	P	0 - 30
LFB	Terbufos	7.94	LCS	P	0 - 30
LFB	Terbutylazine	0.627	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P316008

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852732	Pyraclostrobin	5.90	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P316027

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852731	Glyphosate	4.85	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P315867

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852764	Color (true)	3.26	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 2320 B-97
 Batch ID: P316060

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852741	Total Alkalinity	0.382	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
 Batch ID: P316603

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852538	TDS	2.64	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
 Batch ID: P316062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852741	Fluoride	0.473	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
 Batch ID: P315950

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852649	Organic Carbon	0.625	Spike	P	0 - 20

Reference Method: USGS O-2060-01
 Batch ID: P316160

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1852731	2,4,5-T	1.56	Spike	P	0 - 30
1852731	2,4-D	3.41	Spike	P	0 - 30
1852731	2,4-DB	53.1	Spike	F	0 - 30
1852731	Acetaminophen	5.77	Spike	P	0 - 30
1852731	Acifluorfen	50.5	Spike	F	0 - 30
1852731	Bentazon	2.35	Spike	P	0 - 30
1852731	Carbamazepine	5.81	Spike	P	0 - 30
1852731	Dichlorprop	0.905	Spike	P	0 - 30
1852731	Diuron	4.24	Spike	P	0 - 30
1852731	Fenuron	8.61	Spike	P	0 - 30
1852731	Fluridone	5.78	Spike	P	0 - 30
1852731	Imidacloprid	12.1	Spike	P	0 - 30
1852731	Linuron	21.1	Spike	P	0 - 30
1852731	MCPA	6.27	Spike	P	0 - 30
1852731	MCPP	9.33	Spike	P	0 - 30
1852731	Primidone	27.4	Spike	P	0 - 30
1852731	Silvex	3.69	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: 1852731

Field Sample ID: DI WATER CHECK NE

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Glyphosate 13C 15N	66.2	P	50 - 150
USGS O-2060-01	2,4-D-d3	47.1	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	148	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	150	P	40 - 160
USGS O-2060-01	Diuron-d6	99.2	P	40 - 150
USGS O-2060-01	Primidone-d5	96.2	P	40 - 150

Lab Sample ID: 1852732

Field Sample ID: DI WATER CHECK NE

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Diuron-d6	69.8	P	40 - 150

Lab Sample ID: 1852733

Field Sample ID: DI WATER CHECK NE

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
DEP SOP: GC-011-5 (based on EPA 608 and 617)	Decachlorobiphenyl	120	P	41 - 134

Lab Sample ID: 1852734

Field Sample ID: DI WATER CHECK NE

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	99.1	P	65 - 132
EPA 8270D	Simazine-d10	83.5	P	72 - 128

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A73057

Included Lab Sample IDs: 1852729

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.8	98.9	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A73059

Included Lab Sample IDs: 1852727

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	100	P/P	95 - 105

Reference Method: SM 2120 B

Run ID: A73060

Included Lab Sample IDs: 1852727

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	85 - 115

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00
Run ID: A73095
Included Lab Sample IDs: 1852728

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.2	95.8	P/P	90 - 110

Reference Method: SM 2320 B-97
Run ID: A73130
Included Lab Sample IDs: 1852727

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.1	96.8	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Run ID: A73130
Included Lab Sample IDs: 1852727

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	101	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A73137
Included Lab Sample IDs: 1852731

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	102	91.0	P/P	70 - 160

Reference Method: EPA 8321B
Run ID: A73160
Included Lab Sample IDs: 1852732

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	63.2	82.8	P/P	60 - 150

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A73166
Included Lab Sample IDs: 1852728

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

Reference Method: USGS O-2060-01
Run ID: A73178
Included Lab Sample IDs: 1852731

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4,5-T	91.4	103	P/P	50 - 150
2,4-D	114	110	P/P	50 - 150
2,4-DB	103	135	P/P	50 - 150
Acifluorfen	104	87.4	P/P	50 - 150
Bentazon	82.8	91.4	P/P	50 - 150
Dichlorprop	91.6	99.4	P/P	50 - 150
MCPA	94.4	115	P/P	50 - 150
MCPP	90.2	95.0	P/P	50 - 150
Silvex	101	93.8	P/P	50 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A73180

Included Lab Sample IDs: 1852731

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	94.8	123	P/P	60 - 150
Carbamazepine	94.8	118	P/P	60 - 150
Diuron	104	105	P/P	60 - 150
Fenuron	104	108	P/P	60 - 150
Fluridone	119	109	P/P	60 - 150
Imidacloprid	96.4	92.4	P/P	60 - 150
Linuron	97.2	107	P/P	60 - 150
Primidone	85.2	115	P/P	60 - 150

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A73181

Included Lab Sample IDs: 1852735

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	99.8	98.3	P/P	90 - 110
Iron	102	101	P/P	90 - 110
Magnesium	102	100	P/P	90 - 110
Potassium	101	99.3	P/P	90 - 110
Sodium	100	99.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A73202

Included Lab Sample IDs: 1852728

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.5	96.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A73238

Included Lab Sample IDs: 1852728

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A73248

Included Lab Sample IDs: 1852735

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	99.2	96.9	P/P	90 - 110
Cadmium	100	100	P/P	90 - 110
Chromium	101	101	P/P	90 - 110
Copper	95.2	92.4	P/P	90 - 110
Lead	93.9	91.6	P/P	90 - 110
Zinc	99.2	96.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A73267

Included Lab Sample IDs: 1852728

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A73267

Included Lab Sample IDs: 1852728

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	100	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A73271

Included Lab Sample IDs: 1852735

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Silver	97.1	97.7	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A73375

Included Lab Sample IDs: 1852727

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	102	P/P	90 - 110
Sulfate	98.6	99.3	P/P	90 - 110

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)

Run ID: A73376

Included Lab Sample IDs: 1852733

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	95.1	101	P/P	85 - 115
Alpha-BHC	99.7	110	P/P	85 - 115
Alpha-Chlordane	95.8	102	P/P	85 - 115
Beta-BHC	103	112	P/P	85 - 115
Carbophenothion	103	112*	P/F	90 - 110
Chlordane	105	110	P/P	85 - 115
Chlorothalonil	108	117*	P/F	90 - 110
Cypermethrin	89.4	94.6	P/P	85 - 115
DDD-p,p'	103	121*	P/F	85 - 115
DDE-p,p'	96.7	109	P/P	85 - 115
DDT-p,p'	96.6	112	P/P	85 - 115
Delta-BHC	100	113	P/P	85 - 115
Dicofol	104	102	P/P	90 - 110
Dieldrin	101	112	P/P	85 - 115
Endosulfan I	96.5	105	P/P	85 - 115
Endosulfan II	97.3	107	P/P	85 - 115
Endosulfan Sulfate	97.1	110	P/P	85 - 115
Endrin	98.5	111	P/P	85 - 115
Endrin Aldehyde	101	111	P/P	85 - 115
Endrin Ketone	103	118*	P/F	85 - 115
Gamma-BHC	102	114	P/P	85 - 115
Gamma-Chlordane	95.6	103	P/P	85 - 115
Heptachlor	102	115	P/P	85 - 115
Heptachlor Epoxide	100	111	P/P	85 - 115
Hexachlorobenzene	99.3	103	P/P	85 - 115
Hexachlorocyclopentadiene	88.4	90.1	P/P	85 - 115
Methoxychlor	105	127*	P/F	90 - 110
Mirex	103	109	P/P	90 - 110
PCB-1016	98.7	96.7	P/P	85 - 115

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: GC-011-5 (based on EPA 608 and 617)

Run ID: A73376

Included Lab Sample IDs: 1852733

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1260	100	88.8	P/P	85 - 115
Permethrin	90.9	94.6	P/P	90 - 110
Toxaphene	104	111	P/P	85 - 115
Trifluralin	92.6	93.8	P/P	90 - 110

Reference Method: EPA 8270D

Run ID: A73469

Included Lab Sample IDs: 1852734

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.7		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	105		P	80 - 120
Atrazine	98.7		P	80 - 120
Atrazine Desethyl	100		P	80 - 120
Azinphos Methyl	97.2		P	80 - 120
Bromacil	105		P	80 - 120
Butylate	95.9		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	99.2		P	80 - 120
Cyanazine	101		P	80 - 120
Demeton	95.6		P	80 - 120
Diazinon	99.7		P	80 - 120
Disulfoton	83.8		P	80 - 120
EPTC	98.8		P	80 - 120
Ethion	95.4		P	80 - 120
Ethoprop	98.4		P	80 - 120
Fenamiphos	96.7		P	80 - 120
Fipronil	96.8		P	80 - 120
Fipronil Sulfide	95.7		P	80 - 120
Fipronil Sulfone	97.1		P	80 - 120
Fonofos	99.2		P	80 - 120
Hexazinone	99.3		P	80 - 120
Malathion	91.8		P	80 - 120
Metaxyl	101		P	80 - 120
Metolachlor	101		P	80 - 120
Metribuzin	95.6		P	80 - 120
Mevinphos	97.2		P	80 - 120
Molinate	98.9		P	80 - 120
Norflurazon	96.1		P	80 - 120
Parathion Ethyl	97.4		P	80 - 120
Parathion Methyl	98.9		P	80 - 120
Pendimethalin	97.8		P	80 - 120
Phorate	91.2		P	80 - 120
Prometon	98.9		P	80 - 120
Prometryn	97.1		P	80 - 120
Simazine	101		P	80 - 120
Terbufos	93.7		P	80 - 120
Terbuthylazine	99.4		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A73513

Included Lab Sample IDs: 1852735

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Nickel	101	99.9	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		LCS	Precision SMP	MS
DEP SOP: GC-011-5 (based on EPA 608 and 617)	PCB-1016	112	108	103	95.5	3.47		6.15
	PCB-1260	102	89.8	96.4	83.5	12.8		13.3
EPA 180.1 Rev. 2.0	Turbidity						2.17	
EPA 200.7 Rev. 4.4	Calcium	103		102	103			1.63
	Iron	107		104	107	108		0.461
	Magnesium	102		102	103			0.972
	Potassium	103		98.8	103	103		0.130
	Sodium	104		105	107	103		2.00
EPA 200.8 Rev. 5.4	Arsenic	99.6		102	99.5	98.8		0.777
	Cadmium	101		105	102	100		1.29
	Chromium	101		102	101	100		0.682
	Copper	94.5		93.5	89.9	90.0		0.0589
	Lead	94.6		95.6	93.6	93.3		0.369
	Nickel	101		101	102	105		2.73
	Silver	98.0		99.0	98.4	98.8		0.433
	Zinc	98.0		98.0	95.6	94.8		0.859
EPA 300.0 Rev. 2.1	Chloride	102		101	99.5		0.0564	
	Sulfate	98.6		97.9	96.5			
EPA 350.1 Rev. 2.0	Ammonia-N	105		99.0	101			1.17
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102		103	98.0			3.19
EPA 353.2 Rev. 2.0	NO2NO3-N	104		99.8				0.748
EPA 365.1 Rev. 2.0	Total-P	100		107	104			1.66
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.2		96.4	97.1			0.658
EPA 8270D	Acetochlor	81.5	84.2	87.8	102	3.31		14.9
	Alachlor	83.5	84.2	89.8	107	0.908		17.4
	Ametryn	97.5	99.6	107	137	2.15		25.0
	Atrazine	95.6	96.1	94.3	101	0.505		7.37
	Atrazine Desethyl	81.1	82.6	68.6	74.6	1.84		8.38
	Azinphos Methyl	96.1	97.5	104	126	1.45		19.9
	Bromacil	90.0	92.3	84.6	91.7	2.54		8.08
	Butylate	63.3	56.0	66.9	67.8	12.3		1.35
	Chlorpyrifos Ethyl	99.9	102	92.1	87.5	1.58		5.03
	Chlorpyrifos Methyl	88.6	92.7	87.0	85.3	4.57		2.02
	Cyanazine	140	148	146	167	5.03		13.4
	Demeton	85.5	93.8	89.6	91.1	9.17		1.57
	Diazinon	86.2	91.3	91.7	105	5.70		13.7
	Disulfoton	80.6	101	88.5	87.1	22.5		1.58
	EPTC	56.3	53.5	62.0	64.4	5.06		3.74

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	MS
						SMP	
EPA 8270D	Ethion	99.4	106	104	110	6.12	5.87
	Ethoprop	82.8	84.9	90.9	92.2	2.50	1.46
	Fenamiphos	103	120	105	110	15.7	4.63
	Fipronil	73.9	77.7	84.3	107	4.96	24.1
	Fipronil Sulfide	83.0	89.5	79.3	87.6	7.49	9.96
	Fipronil Sulfone	76.4	81.2	77.0	84.2	6.19	9.00
	Fonofos	87.0	92.1	92.0	91.0	5.76	1.08
	Hexazinone	92.7	93.8	89.2	92.3	1.07	3.41
	Malathion	179	180	103	93.5	0.766	9.49
	Metalaxyl	92.1	87.7	93.8	120	4.91	24.5
	Metolachlor	91.0	93.2	94.9	106	2.36	11.2
	Metribuzin	102	112	98.8	83.3	9.39	17.0
	Mevinphos	94.7	96.5	100	100	1.91	0.391
	Molinate	75.7	73.0	81.0	90.6	3.63	11.1
	Norflurazon	115	124	113	97.8	7.06	14.3
	Parathion Ethyl	91.6	87.0	88.8	91.4	5.13	2.87
	Parathion Methyl	83.7	80.6	82.1	80.4	3.75	2.17
	Pendimethalin	59.9	55.0	57.8	68.2	8.52	16.6
	Phorate	95.4	95.9	100	126	0.477	22.7
	Prometon	97.0	100	100	104	3.14	3.95
	Prometryn	92.6	93.2	94.9	115	0.691	19.5
	Simazine	95.9	90.3	113	108	6.05	4.51
	Terbufos	90.5	83.6	90.8	94.1	7.94	3.53
	Terbutylazine	91.8	91.3	92.2	103	0.627	10.6
EPA 8321B	Glyphosate	63.2		67.6	64.4		4.85
	Pyraclostrobin	68.0		62.8	59.2		5.90
SM 2120 B	Color (true)					3.26	
SM 2320 B-97	Total Alkalinity	97.9				0.382	
SM 2540 C-97	TDS					2.64	
SM 4500 F-C-97	Fluoride	98.3		99.3	99.9		0.473
SM 5310 B-00	Organic Carbon	99.6		95.5	96.1		0.625
USGS O-2060-01	2,4,5-T	105		103	102		1.56
	2,4-D	110		115	119		3.41
	2,4-DB	62.8		70.8	122		53.1
	Acetaminophen	124		162	171		5.77
	Acifluorfen	132		136	81.2		50.5
	Bentazon	104		101	103		2.35
	Carbamazepine	136		140	149		5.81
	Dichlorprop	103		88.0	88.8		0.905
	Diuron	92.0		106	102		4.24
	Fenuron	108		31.5	28.9		8.61
	Fluridone	104		114	108		5.78
	Imidacloprid	99.2		98.0	86.8		12.1
	Linuron	112		90.0	111		21.1
	MCPA	104		98.8	105		6.27
	MCPP	92.8		94.0	103		9.33
	Primidone	104		93.2	123		27.4
	Silvex	114		117	122		3.69

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
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Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
DEP SOP: GC-011-5 (based on EPA 608 and 617) / E31780	Organochlorine pesticides (low levels) in water matrices by GC/ECD.	1852733
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1852727
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1852735
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1852735
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1852727
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1852727
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1852728
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1852728
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1852728
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1852728
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1852729
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1852734
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1852731
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1852732
SM 2120 B / E31780	True Color measured at 450 nm	1852727
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1852727
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1852727
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1852727
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1852727
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1852728
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1852731
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1852731

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: GC-011-5 (based on EPA 608 and 617)	11/29/2016	12/02/2016	Fe-Val Siddell	12/08/2016	Vandana T. Nagar	1852733
EPA 180.1 Rev. 2.0	11/29/2016			11/29/2016 15:54	Sima Feizi	1852727
EPA 200.7 Rev. 4.4	11/29/2016	12/01/2016	Elliott D. Healy	12/05/2016	Joshua Ayres	1852735
EPA 200.8 Rev. 5.4	11/29/2016	12/01/2016	Elliott D. Healy	12/08/2016	Charles J. Peterson	1852735
	11/29/2016	12/19/2016	Elliott D. Healy	12/20/2016	Charles J. Peterson	1852735
EPA 300.0 Rev. 2.1	11/29/2016			12/14/2016	Ping Hua	1852727
EPA 350.1 Rev. 2.0	11/29/2016			12/07/2016	Sofia Elnemr	1852728
EPA 351.2 Rev. 2.0	11/29/2016	12/08/2016	Adrian Shelby	12/09/2016	Joseph Suarez	1852728
EPA 353.2 Rev. 2.0	11/29/2016			12/05/2016	Beverly Y. Sanders	1852728
EPA 365.1 Rev. 2.0	11/29/2016	12/05/2016	Adrian Shelby	12/06/2016	Lipi Saha	1852728
EPA 365.1 Rev. 2.0 dissolved	11/29/2016			11/29/2016 15:57	Julia Storbeck	1852729
EPA 8270D	11/29/2016	12/01/2016	Rasheda Ghaffari	12/05/2016	Irina Carbone	1852734
EPA 8321B	11/29/2016	12/01/2016	Hoor Shaik	12/01/2016	Juyoung Kim	1852732
	11/29/2016	12/02/2016	Mohammad Ghaffari	12/02/2016	Mohammad Ghaffari	1852731
SM 2120 B	11/29/2016			11/29/2016 17:02	Jared I. Manley	1852727
SM 2320 B-97	11/29/2016			12/01/2016	Dale L. Simmons	1852727
SM 2540 C-97	11/29/2016			12/01/2016	Yijie Li	1852727
SM 2540 D-97	11/29/2016			12/01/2016	Yijie Li	1852727
SM 4500 F-C-97	11/29/2016			12/01/2016	Dale L. Simmons	1852727
SM 5310 B-00	11/29/2016			11/30/2016	Julie Michelle Frank	1852728
USGS O-2060-01	11/29/2016	12/05/2016	Hoor Shaik	12/05/2016	Juyoung Kim	1852731
	11/29/2016	12/05/2016	Hoor Shaik	12/06/2016	Juyoung Kim	1852731