

Chemical Analysis Report

SO-DIST-2023-07-14-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **2023 SMP: Stadium Arcadia**
Request ID: **RQ-2023-07-03-48**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
Attn: Monica Jaeger

For additional information please contact
Colin Wright, Ph.D.
Chris Bowen, B.S.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 31-JUL-2023 10:52

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the name.

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 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: HOG BAY AT CR 763

Collection Date/Time: 07/13/2023 09:25

Field ID: G3SD0096

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424010	EPA 8321B	2,4-D	0.0071	I	ug/L	P432513	
		Acesulfame K	0.10	U	ug/L	P432522	
		2,4,5-T	0.0040	U	ug/L	P432513	
		AMPA	10		ug/L	P432522	
		Acetaminophen	0.0080	U	ug/L	P432513	
		Acetamiprid	0.0020	U	ug/L	P432513	
		Endothall	0.25	U	ug/L	P432522	
		Glufosinate	0.10	U	ug/L	P432522	
		Glyphosate	6.2		ug/L	P432522	
		Afidopyropen	0.0020	U	ug/L	P432513	
		Bentazon	8.0E-04	U	ug/L	P432513	
		Sucralose	1.3		ug/L	P432522	
		Benzovindiflupyr	0.0020	U	ug/L	P432513	
		Carbamazepine	0.0049		ug/L	P432513	
		Clothianidin	0.42		ug/L	P432513	
		Dinotefuran	0.0020	U	ug/L	P432513	
		Diuron	0.0062	I	ug/L	P432513	
		Fenuron	0.032	U	ug/L	P432513	
		Fluridone	8.0E-04	U	ug/L	P432513	
		Imazapyr	0.0061	I	ug/L	P432513	
		Hydrocodone	0.0020	U	ug/L	P432513	
		Ibuprofen	0.080	U	ug/L	P432513	
		Imidacloprid	1.4		ug/L	P432513	
		Linuron	0.0040	U	ug/L	P432513	
		Mandestrobin	0.0020	U	ug/L	P432513	
		MCPP	0.0020	U	ug/L	P432513	
		Naproxen	0.0080	U	ug/L	P432513	
		Primidone	0.0073	I	ug/L	P432513	
		Pyraclostrobin	0.0020	U	ug/L	P432513	
		Silvex	0.0040	U	ug/L	P432513	
		Thiamethoxam	0.44		ug/L	P432513	
		Tolfenpyrad	0.0020	U	ug/L	P432513	
		Triclopyr	0.0040	U	ug/L	P432513	

Sample Location: HAWTHORNE CREEK AT REYNOLDS ST

Collection Date/Time: 07/13/2023 09:45

Field ID: G3SD0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2423987	DEP SOP: NU-094-1	Color (true)	110		PCU	P432516	
	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P432519	
	EPA 300.0 Rev. 2.1	Chloride	160		mg Cl/L	P432673	
		Sulfate	110		mg SO4/L	P432677	
	SM 2320 B-2011	Total Alkalinity	132		mg CaCO3/L	P432598	
	SM 2540 C-2015	TDS	540		mg/L	P433062	
	SM 2540 D-2015	TSS	4	I	mg/L	P433041	
2423988	SM 4500-F- C-2011	Fluoride	0.47		mg F/L	P432600	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.051		mg N/L	P432630	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P432554	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.37		mg N/L	P432637	
	EPA 365.1 Rev. 2.0	Total-P	0.41		mg P/L	P432607	
2424012	SM 5310 B-2011	Organic Carbon	18		mg C/L	P432828	
	EPA 8321B	2,4-D	0.056		ug/L	P432513	
		Acesulfame K	0.10	U	ug/L	P432522	
		2,4,5-T	0.0040	U	ug/L	P432513	
		AMPA	3.6		ug/L	P432522	
		Acetaminophen	0.0080	U	ug/L	P432513	
		Acetamiprid	0.0020	U	ug/L	P432513	
		Endothall	0.25	U	ug/L	P432522	
		Glufosinate	0.10	U	ug/L	P432522	
		Glyphosate	2.0		ug/L	P432522	
		Afidopyropen	0.0020	U	ug/L	P432513	
		Bentazon	0.028		ug/L	P432513	
		Sucralose	0.47		ug/L	P432522	
		Benzovindiflupyr	0.0060	I	ug/L	P432513	
		Carbamazepine	0.0013	I	ug/L	P432513	
		Clothianidin	0.13		ug/L	P432513	
		Dinotefuran	0.0020	U	ug/L	P432513	
		Diuron	0.025		ug/L	P432513	
		Fenuron	0.14		ug/L	P432513	
		Fluridone	8.0E-04	U	ug/L	P432513	
		Imazapyr	0.0073	I	ug/L	P432513	
		Hydrocodone	0.0020	U	ug/L	P432513	
		Ibuprofen	0.080	U	ug/L	P432513	
		Imidacloprid	0.46		ug/L	P432513	
		Linuron	0.0040	U	ug/L	P432513	
		Mandestrobin	0.0020	U	ug/L	P432513	
		MCPP	0.0020	U	ug/L	P432513	
		Naproxen	0.010	I	ug/L	P432513	
		Primidone	0.0040	U	ug/L	P432513	
		Pyraclostrobin	0.0020	U	ug/L	P432513	
		Silvex	0.0040	U	ug/L	P432513	
		Thiamethoxam	0.15		ug/L	P432513	

Field ID: G3SD0011

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424012	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P432513	
		Triclopyr	0.0040	U	ug/L	P432513	
2424016	EPA 200.7 Rev. 4.4	Calcium	91.7		mg/L	P432574	
		Iron	550		ug/L	P432574	
		Magnesium	23.9		mg/L	P432574	
		Potassium	9.2		mg/L	P432574	
		Sodium	60.2		mg/L	P432574	
		Strontium	7.10E+03		ug/L	P432574	
		Tin	3.5	I	ug/L	P432574	
		Titanium	1.6	I	ug/L	P432574	
		Vanadium	2.7	I	ug/L	P432574	
		Zinc	5.0	U	ug/L	P432574	
	EPA 200.8 Rev. 5.4	Aluminum	69		ug/L	P432574	
		Antimony	0.38		ug/L	P432574	
		Arsenic	2.61		ug/L	P432574	
		Barium	37.7		ug/L	P432574	
		Beryllium	0.010	U	ug/L	P432574	
		Boron	67.6		ug/L	P432574	
		Cadmium	0.020	U	ug/L	P432574	
		Chromium	0.54	I	ug/L	P432574	
		Cobalt	0.191		ug/L	P432574	
		Copper	0.86		ug/L	P432574	
		Lead	0.20	U	ug/L	P432574	
		Manganese	64.6		ug/L	P432574	
		Molybdenum	1.82		ug/L	P432574	
		Nickel	1.6	I	ug/L	P432574	
		Selenium	0.25	I	ug/L	P432574	
		Silver	0.010	U	ug/L	P432574	
		Thallium	0.10	U	ug/L	P432574	
	SM 2340 B-2011	Hardness	327		mg/L	P432574	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: FB

Collection Date/Time: 07/13/2023 09:55

Field ID: FB_07132023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2423989	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P432516	
	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P432519	
	EPA 300.0 Rev. 2.1	Chloride	0.20	U	mg Cl/L	P432731	
		Sulfate	0.20	U	mg SO4/L	P432733	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P432598	
	SM 2540 C-2015	TDS	15	U	mg/L	P433062	
	SM 2540 D-2015	TSS	2	U	mg/L	P433041	
2423990	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P432600	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P432630	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P432554	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P432637	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P432607	
2424013	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P432828	
	EPA 8321B	2,4-D	0.0020	U	ug/L	P432513	
		Acesulfame K	0.10	U	ug/L	P432522	
		2,4,5-T	0.0040	U	ug/L	P432513	
		AMPA	0.10	U	ug/L	P432522	
		Acetaminophen	0.0080	U	ug/L	P432513	
		Acetamiprid	0.0020	U	ug/L	P432513	
		Endothall	0.25	U	ug/L	P432522	
		Glufosinate	0.10	U	ug/L	P432522	
		Glyphosate	0.10	U	ug/L	P432522	
		Afidopyropen	0.0020	U	ug/L	P432513	
		Bentazon	8.0E-04	U	ug/L	P432513	
		Sucralose	0.010	U	ug/L	P432522	
		Benzovindiflupyr	0.0020	U	ug/L	P432513	
		Carbamazepine	8.0E-04	U	ug/L	P432513	
		Clothianidin	0.0020	U	ug/L	P432513	
		Dinotefuran	0.0020	U	ug/L	P432513	
		Diuron	0.0020	U	ug/L	P432513	
		Fenuron	0.032	U	ug/L	P432513	
		Fluridone	8.0E-04	U	ug/L	P432513	
		Imazapyr	0.0040	U	ug/L	P432513	
		Hydrocodone	0.0020	U	ug/L	P432513	
		Ibuprofen	0.080	U	ug/L	P432513	
		Imidacloprid	0.0020	U	ug/L	P432513	
		Linuron	0.0040	U	ug/L	P432513	
		Mandestrobin	0.0020	U	ug/L	P432513	
		MCPP	0.0020	U	ug/L	P432513	
		Naproxen	0.0080	U	ug/L	P432513	
		Primidone	0.0040	U	ug/L	P432513	
		Pyraclostrobin	0.0020	U	ug/L	P432513	
		Silvex	0.0040	U	ug/L	P432513	
		Thiamethoxam	0.0020	U	ug/L	P432513	

Field ID: FB_07132023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424013	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P432513	
		Triclopyr	0.0040	U	ug/L	P432513	
2424017	EPA 200.7 Rev. 4.4	Calcium	0.075	U	mg/L	P432574	
		Iron	30	U	ug/L	P432574	
		Magnesium	0.040	U	mg/L	P432574	
		Potassium	0.30	U	mg/L	P432574	
		Sodium	0.50	U	mg/L	P432574	
		Strontium	2.0	U	ug/L	P432574	
		Tin	3.0	U	ug/L	P432574	
		Titanium	0.75	U	ug/L	P432574	
		Vanadium	2.0	U	ug/L	P432574	
		Zinc	5.0	U	ug/L	P432574	
	EPA 200.8 Rev. 5.4	Aluminum	5.0	U	ug/L	P432574	
		Antimony	0.050	U	ug/L	P432574	
		Arsenic	0.050	U	ug/L	P432574	
		Barium	0.20	U	ug/L	P432574	
		Beryllium	0.010	U	ug/L	P432574	
		Boron	4.0	I	ug/L	P432574	
		Cadmium	0.020	U	ug/L	P432574	
		Chromium	0.40	U	ug/L	P432574	
		Cobalt	0.020	U	ug/L	P432574	
		Copper	0.40	U	ug/L	P432574	
		Lead	0.20	U	ug/L	P432574	
		Manganese	0.10	U	ug/L	P432574	
		Molybdenum	0.15	U	ug/L	P432574	
		Nickel	0.50	U	ug/L	P432574	
		Selenium	0.20	U	ug/L	P432574	
		Silver	0.010	U	ug/L	P432574	
		Thallium	0.10	U	ug/L	P432574	
	SM 2340 B-2011	Hardness	0.35	U	mg/L	P432574	

Ref. Method and Comment:

SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: The boron result was confirmed in the undigested sample on 07/18/2023.

Sample Location: JOSHUA CREEK ABOVE PEACE RIVER

Collection Date/Time: 07/13/2023 10:10

Field ID: G3SD0159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424009	EPA 8270E	Aldrin	0.66	U	ng/L	P432458	
		Alpha-BHC	0.10	U	ng/L	P432458	
		Alpha-Chlordane	0.21	I	ng/L	P432458	
		PCB-1016	2.0	U	ng/L	P432458	
		Beta-BHC	0.10	UJ	ng/L	P432458	LCS
		PCB-1221	2.0	U	ng/L	P432458	
		Beta-Cyfluthrin	1.3	U	ng/L	P432458	
		PCB-1232	2.0	U	ng/L	P432458	
		Bifenthrin	0.51	U	ng/L	P432458	
		PCB-1242	2.0	U	ng/L	P432458	
		Carbophenothion	0.92	U	ng/L	P432458	
		PCB-1248	2.0	U	ng/L	P432458	
		Chlorothalonil	3.7	U	ng/L	P432458	
		PCB-1254	2.0	U	ng/L	P432458	
		Cis-Nonachlor	0.20	U	ng/L	P432458	
		PCB-1260	2.0	U	ng/L	P432458	
		Cypermethrin	1.5	U	ng/L	P432458	
		Dacthal	0.15	U	ng/L	P432458	
		DDD-p,p'	0.26	U	ng/L	P432458	
		DDE-p,p'	0.20	U	ng/L	P432458	
		DDT-p,p'	0.82	U	ng/L	P432458	
		Delta-BHC	0.41	U	ng/L	P432458	
		Deltamethrin	1.3	U	ng/L	P432458	
		Dichlobenil	0.26	U	ng/L	P432458	
		Dicofol	1.3	U	ng/L	P432458	
		Dieldrin	0.41	U	ng/L	P432458	
		Endosulfan I	0.41	U	ng/L	P432458	
		Endosulfan II	0.92	U	ng/L	P432458	
		Endosulfan Sulfate	0.31	U	ng/L	P432458	
		Endrin	0.92	U	ng/L	P432458	
		Endrin Aldehyde	0.77	U	ng/L	P432458	
		Endrin Ketone	0.41	U	ng/L	P432458	
		Esfenvalerate	0.77	U	ng/L	P432458	
		Ethalfuralin	0.15	U	ng/L	P432458	
		Fenpropathrin	0.26	U	ng/L	P432458	
		Gamma-BHC	0.13	U	ng/L	P432458	
		Gamma-Chlordane	0.32	I	ng/L	P432458	
		Heptachlor	0.20	U	ng/L	P432458	
		Heptachlor Epoxide	0.26	U	ng/L	P432458	
		Hexachlorobenzene**	1.0	U	ng/L	P432458	
		Kepone	14	UJ	ng/L	P432458	CCV
		Lambda-Cyhalothrin	0.77	U	ng/L	P432458	
		Methoprene	0.77	U	ng/L	P432458	
		Methoxychlor	0.31	U	ng/L	P432458	

Field ID: G3SD0159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424009	EPA 8270E	MGK-264	0.20	U	ng/L	P432458	RPD
		Mirex	0.36	U	ng/L	P432458	
		Oxychlordane	0.31	U	ng/L	P432458	
		Permethrin	1.6	U	ng/L	P432458	
		Phenothrin	0.92	U	ng/L	P432458	
		Piperonyl Butoxide	1.2		ng/L	P432458	
		Prallethrin	2.0	U	ng/L	P432458	
		Tau-Fluvalinate	0.26	U	ng/L	P432458	
		Tetramethrin	0.77	U	ng/L	P432458	
		Trans-Nonachlor	0.20	U	ng/L	P432458	
		Triclosan Methyl	0.15	U	ng/L	P432458	
		Trifluralin	0.20	U	ng/L	P432458	
		Chlordane	2.0	U	ng/L	P432458	
		Toxaphene	15	U	ng/L	P432458	
2424011	EPA 8321B						
		2,4-D	0.048		ug/L	P432513	
		Acesulfame K	0.10	U	ug/L	P432522	
		2,4,5-T	0.0040	U	ug/L	P432513	
		AMPA	2.6		ug/L	P432522	
		Acetaminophen	0.0080	U	ug/L	P432513	
		Acetamiprid	0.0020	U	ug/L	P432513	
		Endothall	0.25	U	ug/L	P432522	
		Glufosinate	0.10	U	ug/L	P432522	
		Glyphosate	1.5		ug/L	P432522	
		Afidopyropen	0.0020	U	ug/L	P432513	
		Bentazon	0.0095		ug/L	P432513	
		Sucralose	0.22		ug/L	P432522	
		Benzovindiflupyr	0.0020	U	ug/L	P432513	
		Carbamazepine	0.0010	I	ug/L	P432513	
		Clothianidin	0.082		ug/L	P432513	
		Dinotefuran	0.0020	U	ug/L	P432513	
		Diuron	0.021		ug/L	P432513	
		Fenuron	0.041	I	ug/L	P432513	
		Fluridone	8.0E-04	U	ug/L	P432513	
		Imazapyr	0.015	I	ug/L	P432513	
		Hydrocodone	0.0020	U	ug/L	P432513	
		Ibuprofen	0.080	U	ug/L	P432513	
		Imidacloprid	0.35		ug/L	P432513	
		Linuron	0.0040	U	ug/L	P432513	
		Mandestrobin	0.0020	U	ug/L	P432513	
		MCP	0.0020	U	ug/L	P432513	
		Naproxen	0.0080	U	ug/L	P432513	
		Primidone	0.0040	U	ug/L	P432513	
		Pyraclostrobin	0.0020	U	ug/L	P432513	
		Silvex	0.0040	U	ug/L	P432513	
		Thiamethoxam	0.11		ug/L	P432513	

Field ID: G3SD0159

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2424011	EPA 8321B	Tolfenpyrad	0.0020	U	ug/L	P432513	
		Triclopyr	0.0040	U	ug/L	P432513	

Ref. Method and Comment:
EPA 8270E: Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P432516

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P432519

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P432574

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P432574

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432673

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432677

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432731

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432733

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432630

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432554

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432637

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432607

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

Reference Method: EPA 8270E
Batch ID: P432458

Component	Result	Code	Units
Aldrin	0.65	U	ng/L
Aldrin	0.65	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-BHC	0.10	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Alpha-Chlordane	0.20	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-BHC	0.10	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L
Beta-Cyfluthrin	1.2	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270E

Batch ID: P432458

Component	Result	Code	Units
Bifenthrin	0.50	U	ng/L
Bifenthrin	0.50	U	ng/L
Carbophenothion	0.90	U	ng/L
Carbophenothion	0.90	U	ng/L
Chlorothalonil	3.6	U	ng/L
Chlorothalonil	3.6	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cis-Nonachlor	0.20	U	ng/L
Cypermethrin	1.5	U	ng/L
Cypermethrin	1.5	U	ng/L
Dacthal	0.15	U	ng/L
Dacthal	0.15	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDD-p,p'	0.25	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDE-p,p'	0.20	U	ng/L
DDT-p,p'	0.80	U	ng/L
DDT-p,p'	0.80	U	ng/L
Delta-BHC	0.40	U	ng/L
Delta-BHC	0.40	U	ng/L
Deltamethrin	1.2	U	ng/L
Deltamethrin	1.2	U	ng/L
Dichlobenil	0.25	U	ng/L
Dichlobenil	0.25	U	ng/L
Dicofol	1.2	U	ng/L
Dicofol	1.2	U	ng/L
Dieldrin	0.40	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan I	0.40	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan II	0.90	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endosulfan Sulfate	0.30	U	ng/L
Endrin	0.90	U	ng/L
Endrin	0.90	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Aldehyde	0.75	U	ng/L
Endrin Ketone	0.40	U	ng/L
Endrin Ketone	0.40	U	ng/L
Esfenvalerate	0.75	U	ng/L
Esfenvalerate	0.75	U	ng/L
Ethalfuralin	0.15	U	ng/L
Ethalfuralin	0.15	U	ng/L
Fenpropathrin	0.25	U	ng/L
Fenpropathrin	0.25	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-BHC	0.12	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Gamma-Chlordane	0.20	U	ng/L
Heptachlor	0.20	U	ng/L
Heptachlor	0.20	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P432458

Component	Result	Code	Units
Heptachlor Epoxide	0.25	U	ng/L
Heptachlor Epoxide	0.25	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Hexachlorobenzene	1.0	U	ng/L
Kepone	14	U	ng/L
Kepone	14	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Lambda-Cyhalothrin	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoprene	0.75	U	ng/L
Methoxychlor	0.30	U	ng/L
Methoxychlor	0.30	U	ng/L
MGK-264	0.20	U	ng/L
MGK-264	0.20	U	ng/L
Mirex	0.35	U	ng/L
Mirex	0.35	U	ng/L
Oxychlordane	0.30	U	ng/L
Oxychlordane	0.30	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1016	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1221	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1232	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1242	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1248	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1254	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
PCB-1260	2.0	U	ng/L
Permethrin	1.6	U	ng/L
Permethrin	1.6	U	ng/L
Phenothrin	0.90	U	ng/L
Phenothrin	0.90	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Piperonyl Butoxide	0.15	U	ng/L
Prallethrin	2.0	U	ng/L
Prallethrin	2.0	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tau-Fluvalinate	0.25	U	ng/L
Tetramethrin	0.75	U	ng/L
Tetramethrin	0.75	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Trans-Nonachlor	0.20	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Triclosan Methyl	0.15	U	ng/L
Trifluralin	0.20	U	ng/L
Trifluralin	0.20	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8276

Batch ID: P432458

Component	Result	Code	Units
Chlordane	2.0	U	ng/L
Chlordane	2.0	U	ng/L
Toxaphene	15	U	ng/L
Toxaphene	15	U	ng/L

Reference Method: EPA 8321B

Batch ID: P432513

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	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	0.032	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.080	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
Silvex	0.0040	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: P432522

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: SM 2320 B-2011

Batch ID: P432598

Component	Result	Code	Units
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Quality Assurance Report

Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P432598

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2015
Batch ID: P433062

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P433041

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P432600

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P432828

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P432516

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	101		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P432519

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	99.7		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P432574

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	102		P	85 - 115
Iron	107		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	104		P	85 - 115
Sodium	105		P	85 - 115
Strontium	103		P	85 - 115
Tin	102		P	85 - 115
Titanium	99.7		P	85 - 115
Vanadium	101		P	85 - 115
Zinc	98.0		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P432574

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	103		P	85 - 115
Antimony	101		P	85 - 115
Arsenic	99.8		P	85 - 115
Barium	103		P	85 - 115
Beryllium	93.4		P	85 - 115
Boron	105		P	85 - 115
Cadmium	102		P	85 - 115
Chromium	96.2		P	85 - 115
Cobalt	101		P	85 - 115
Copper	97.8		P	85 - 115
Lead	96.7		P	85 - 115
Manganese	98.2		P	85 - 115
Molybdenum	97.5		P	85 - 115
Nickel	99.5		P	85 - 115
Selenium	102		P	85 - 115
Silver	105		P	85 - 115
Thallium	98.4		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432673

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432677

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432731

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	98.8		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432733

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.5		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432630

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	93.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432554

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432637

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	98.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432607

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

Reference Method: EPA 8270E
Batch ID: P432458

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	42.0		P	30 - 96.0
Alpha-BHC	78.3		P	70 - 109
Alpha-Chlordane	61.8		P	45 - 107
Beta-BHC	48.2		F	64 - 138
Beta-Cyfluthrin	53.8		P	17 - 141
Bifenthrin	58.2		P	10 - 113
Carbophenothion	50.6		P	24 - 91.0
Chlorothalonil	73.3		P	26 - 180
Cis-Nonachlor	63.5		P	37 - 102
Cypermethrin	82.1		P	20 - 133

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P432458

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Dacthal	78.5		P	69 - 114
DDD-p,p'	57.0		P	42 - 105
DDE-p,p'	61.7		P	42 - 106
DDT-p,p'	62.1		P	42 - 107
Delta-BHC	71.7		P	67 - 144
Deltamethrin	64.3		P	15 - 149
Dichlobenil	57.4		P	46 - 117
Dicofol	58.9		P	34 - 114
Dieldrin	63.9		P	50 - 108
Endosulfan I	62.3		P	55 - 104
Endosulfan II	72.5		P	51 - 111
Endosulfan Sulfate	77.0		P	56 - 121
Endrin	69.4		P	10 - 106
Endrin Aldehyde	55.8		P	34 - 114
Endrin Ketone	96.3		P	63 - 177
Esfenvalerate	74.6		P	29 - 143
Ethalfuralin	59.9		P	46 - 96.0
Fenpropathrin	74.2		P	28 - 115
Gamma-BHC	85.5		P	65 - 121
Gamma-Chlordane	64.4		P	39 - 103
Heptachlor	62.9		P	39 - 94.0
Heptachlor Epoxide	64.0		P	54 - 104
Hexachlorobenzene	51.3		P	36 - 100
Kepone	66.1		P	10 - 225
Lambda-Cyhalothrin	67.2		P	10 - 135
Methoprene	60.1		P	10 - 109
Methoxychlor	74.7		P	52 - 112
MGK-264	79.6		P	44 - 117
Mirex	48.3		P	20 - 90.0
Oxychlordane	63.2		P	44 - 102
PCB-1016	81.7		P	45 - 107
PCB-1260	72.9		P	40 - 118
Permethrin	65.9		P	18 - 135
Phenothrin	58.4		P	10 - 102
Piperonyl Butoxide	80.6		P	28 - 156
Prallethrin	67.6		P	28 - 113
Tau-Fluvalinate	73.4		P	10 - 123
Tetramethrin	80.2		P	18 - 158
Trans-Nonachlor	63.8		P	39 - 104
Triclosan Methyl	62.4		P	54 - 108
Trifluralin	62.6		P	46 - 97.0

Reference Method: EPA 8276
Batch ID: P432458

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	72.1		P	52 - 117
Toxaphene	71.3		P	44 - 125

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P432513

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	87.3		P	40 - 150
2,4,5-T	84.5		P	40 - 150
Acetaminophen	55.9		P	30 - 150
Acetamiprid	58.4		P	40 - 150
Afidopyropen	46.8		P	30 - 150
Bentazon	108		P	30 - 150
Benzovindiflupyr	72.7		P	40 - 150
Carbamazepine	68.4		P	40 - 150
Clothianidin	82.1		P	40 - 150
Dinotefuran	94.7		P	40 - 150
Diuron	47.3		P	40 - 150
Fenuron	83.7		P	40 - 150
Fluridone	75.4		P	40 - 150
Hydrocodone	85.9		P	40 - 150
Ibuprofen	63.7		P	40 - 150
Imazapyr	76.3		P	40 - 150
Imidacloprid	76.5		P	40 - 150
Linuron	69.0		P	40 - 150
Mandestrobin	70.9		P	40 - 150
MCPP	88.8		P	40 - 150
Naproxen	65.6		P	40 - 150
Primidone	72.7		P	40 - 150
Pyraclostrobin	76.5		P	40 - 150
Silvex	85.5		P	40 - 150
Thiamethoxam	69.7		P	40 - 150
Tolfenpyrad	53.5		P	30 - 150
Triclopyr	83.1		P	40 - 150

Reference Method: EPA 8321B

Batch ID: P432522

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	90.2		P	40 - 150
AMPA	84.6		P	40 - 150
Endothall	87.2		P	40 - 150
Glufosinate	91.6		P	40 - 150
Glyphosate	98.1		P	40 - 150
Sucralose	89.1		P	40 - 150

Reference Method: SM 2320 B-2011

Batch ID: P432598

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	98.3		P	92 - 105

Reference Method: SM 2540 C-2015

Batch ID: P433062

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	96.5		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2540 D-2015
Batch ID: P433041

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	103		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P432600

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P432828

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.3		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P432574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423880	Calcium	104		P	80 - 120
2423880	Iron	102	105	P/P	80 - 120
2423880	Magnesium	101	103	P/P	80 - 120
2423880	Potassium	99.6	102	P/P	80 - 120
2423880	Sodium	103		P	80 - 120
2423880	Strontium	101	101	P/P	80 - 120
2423880	Tin	102	102	P/P	80 - 120
2423880	Titanium	101	106	P/P	80 - 120
2423880	Vanadium	101	101	P/P	80 - 120
2423880	Zinc	98.6	99.6	P/P	80 - 120
2424007	Calcium	102		P	80 - 120
2424007	Iron	106		P	80 - 120
2424007	Magnesium	104		P	80 - 120
2424007	Potassium	98.3		P	80 - 120
2424007	Sodium	94.1		P	80 - 120
2424007	Strontium	96.6		P	80 - 120
2424007	Tin	102		P	80 - 120
2424007	Titanium	102		P	80 - 120
2424007	Vanadium	104		P	80 - 120
2424007	Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P432574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423880	Aluminum	95.8	94.5	P/P	80 - 120
2423880	Antimony	102	102	P/P	80 - 120
2423880	Arsenic	101	99.9	P/P	80 - 120
2423880	Barium	104	104	P/P	80 - 120
2423880	Beryllium	94.1	92.0	P/P	80 - 120
2423880	Boron	103	102	P/P	80 - 120
2423880	Cadmium	100	99.5	P/P	80 - 120
2423880	Chromium	95.1	95.5	P/P	80 - 120
2423880	Cobalt	100	99.8	P/P	80 - 120
2423880	Copper	98.4	97.9	P/P	80 - 120
2423880	Lead	97.5	97.4	P/P	80 - 120
2423880	Manganese	97.2	97.0	P/P	80 - 120
2423880	Molybdenum	101	99.8	P/P	80 - 120
2423880	Nickel	99.0	98.3	P/P	80 - 120
2423880	Selenium	103	103	P/P	80 - 120
2423880	Silver	105	104	P/P	80 - 120
2423880	Thallium	99.3	101	P/P	80 - 120
2424007	Aluminum	102		P	80 - 120
2424007	Antimony	102		P	80 - 120
2424007	Arsenic	102		P	80 - 120
2424007	Barium	102		P	80 - 120
2424007	Beryllium	91.9		P	80 - 120
2424007	Boron	106		P	80 - 120
2424007	Cadmium	101		P	80 - 120
2424007	Chromium	95.2		P	80 - 120
2424007	Cobalt	98.5		P	80 - 120
2424007	Copper	97.7		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P432574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424007	Lead	97.6		P	80 - 120
2424007	Manganese	95.3		P	80 - 120
2424007	Molybdenum	100		P	80 - 120
2424007	Nickel	96.4		P	80 - 120
2424007	Selenium	101		P	80 - 120
2424007	Silver	103		P	80 - 120
2424007	Thallium	100		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432673

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423799	Chloride	104		P	90 - 110
2423891	Chloride	106		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432677

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423799	Sulfate	98.4		P	90 - 110
2423891	Sulfate	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432731

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423991	Chloride	99.3		P	90 - 110
2424316	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432733

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423991	Sulfate	91.8		P	90 - 110
2424316	Sulfate	97.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432630

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423965	Ammonia-N	99.6	97.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432554

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424032	Kjeldahl Nitrogen	100	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432637

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432637

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423949	NO2NO3-N	94.0	93.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432607

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2424031	Total-P	102	103	P/P	90 - 110

Reference Method: EPA 8270E
Batch ID: P432458

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423733	Aldrin	51.6	40.2	P/P	24 - 81.0
2423733	Alpha-BHC	86.5	86.1	P/P	65 - 110
2423733	Alpha-Chlordane	72.1	62.3	P/P	43 - 119
2423733	Beta-BHC	57.2	54.4	P/P	54 - 165
2423733	Beta-Cyfluthrin	49.4	36.8	P/P	27 - 165
2423733	Bifenthrin	54.8	42.0	P/P	17 - 117
2423733	Carbophenothion	52.7	47.6	P/P	21 - 108
2423733	Chlorothalonil	77.6	84.3	P/P	10 - 255
2423733	Cis-Nonachlor	64.0	52.2	P/P	34 - 98.0
2423733	Cypermethrin	72.7	60.1	P/P	25 - 143
2423733	Dacthal	89.2	88.1	P/P	55 - 139
2423733	DDD-p,p'	64.3	51.6	P/P	30 - 109
2423733	DDE-p,p'	68.4	59.0	P/P	35 - 106
2423733	DDT-p,p'	63.1	57.7	P/P	41 - 101
2423733	Delta-BHC	75.1	76.7	P/P	58 - 165
2423733	Deltamethrin	58.3	52.8	P/P	10 - 194
2423733	Dichlobenil	73.4	69.2	P/P	22 - 114
2423733	Dicofol	65.5	64.4	P/P	17 - 133
2423733	Dieldrin	64.4	61.6	P/P	45 - 129
2423733	Endosulfan I	66.6	63.6	P/P	49 - 104
2423733	Endosulfan II	83.3	73.2	P/P	37 - 117
2423733	Endosulfan Sulfate	80.9	74.2	P/P	38 - 128
2423733	Endrin	75.8	71.7	P/P	35 - 116
2423733	Endrin Aldehyde	77.9	60.3	P/P	19 - 108
2423733	Endrin Ketone	109	109	P/P	44 - 134
2423733	Esfenvalerate	63.7	52.8	P/P	27 - 176
2423733	Ethalfuralin	67.9	64.4	P/P	49 - 100
2423733	Fenpropathrin	66.5	58.9	P/P	34 - 117
2423733	Gamma-BHC	104	100	P/P	59 - 129
2423733	Gamma-Chlordane	72.5	59.9	P/P	33 - 107
2423733	Heptachlor	74.9	66.1	P/P	37 - 94.0
2423733	Heptachlor Epoxide	68.7	66.2	P/P	38 - 118
2423733	Hexachlorobenzene	55.7	51.9	P/P	35 - 97.0
2423733	Kepone	65.0	48.4	P/P	10 - 221
2423733	Lambda-Cyhalothrin	58.0	48.5	P/P	23 - 190
2423733	Methoprene	60.5	47.7	P/P	21 - 109
2423733	Methoxychlor	82.1	85.7	P/P	46 - 118
2423733	MGK-264	90.9	88.0	P/P	39 - 122
2423733	Mirex	54.4	33.4	P/P	25 - 90.0
2423733	Oxychlordane	72.5	65.6	P/P	42 - 100

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P432458

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423733	Permethrin	60.3	58.1	P/P	33 - 181
2423733	Phenothrin	56.1	54.9	P/P	12 - 125
2423733	Piperonyl Butoxide	83.7	95.4	P/P	10 - 178
2423733	Prallethrin	78.0	70.7	P/P	24 - 122
2423733	Tau-Fluvalinate	60.2	48.2	P/P	13 - 151
2423733	Tetramethrin	78.7	84.1	P/P	16 - 172
2423733	Trans-Nonachlor	69.8	60.1	P/P	39 - 100
2423733	Triclosan Methyl	65.1	64.0	P/P	43 - 110
2423733	Trifluralin	64.9	62.4	P/P	45 - 94.0
2423853	PCB-1016	68.9	79.8	P/P	45 - 107
2423853	PCB-1260	56.9	60.2	P/P	40 - 112

Reference Method: EPA 8276
Batch ID: P432458

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423853	Chlordane	54.2	60.8	P/P	43 - 123
2423853	Toxaphene	63.9	62.6	P/P	27 - 156

Reference Method: EPA 8321B
Batch ID: P432513

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423624	2,4-D	100	90.6	P/P	40 - 150
2423624	2,4,5-T	98.0	87.2	P/P	40 - 150
2423624	Acetaminophen	61.8	58.4	P/P	30 - 150
2423624	Acetamiprid	86.6	88.0	P/P	40 - 150
2423624	Afidopyropen	90.4	84.2	P/P	30 - 150
2423624	Bentazon	111	112	P/P	30 - 150
2423624	Benzovindiflupyr	79.8	80.5	P/P	40 - 150
2423624	Carbamazepine	75.9	64.5	P/P	40 - 150
2423624	Clothianidin	89.3	81.7	P/P	40 - 150
2423624	Dinotefuran	89.6	81.9	P/P	40 - 150
2423624	Diuron	49.9	60.2	P/P	40 - 150
2423624	Fenuron	76.8	74.5	P/P	40 - 150
2423624	Fluridone	88.2	87.6	P/P	40 - 150
2423624	Hydrocodone	82.2	83.3	P/P	40 - 150
2423624	Ibuprofen	75.2	72.0	P/P	40 - 150
2423624	Imazapyr	99.0	87.2	P/P	40 - 150
2423624	Imidacloprid	104	96.7	P/P	40 - 150
2423624	Linuron	64.4	68.5	P/P	40 - 150
2423624	Mandestrobin	85.2	78.6	P/P	40 - 150
2423624	MCPP	108	101	P/P	40 - 150
2423624	Naproxen	65.9	68.3	P/P	40 - 150
2423624	Primidone	71.2	74.2	P/P	40 - 150
2423624	Pyraclostrobin	87.0	83.4	P/P	40 - 150
2423624	Silvex	89.3	91.1	P/P	40 - 150
2423624	Thiamethoxam	71.6	65.3	P/P	40 - 150
2423624	Tolfenpyrad	56.4	50.9	P/P	30 - 150
2423624	Triclopyr	93.3	94.3	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P432522

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423690	Acesulfame K	113	118	P/P	40 - 150
2423690	AMPA	93.3	73.2	P/P	40 - 150
2423690	Endothall	90.6	93.4	P/P	40 - 150
2423690	Glufosinate	67.4	73.6	P/P	40 - 150
2423690	Glyphosate	73.8	74.9	P/P	40 - 150
2423690	Sucralose	96.3	99.5	P/P	40 - 150

Reference Method: SM 4500-F- C-2011
Batch ID: P432600

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423991	Fluoride	103	102	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P432828

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2423988	Organic Carbon	92.3	93.6	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P432516

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423992	Color (true)	0.492	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P432519

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424098	Turbidity	7.25	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P432574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423880	Calcium	1.58	Spike	P	0 - 20
2423880	Iron	1.91	Spike	P	0 - 20
2423880	Magnesium	1.52	Spike	P	0 - 20
2423880	Potassium	1.73	Spike	P	0 - 20
2423880	Sodium	0.478	Spike	P	0 - 20
2423880	Strontium	0.293	Spike	P	0 - 20
2423880	Tin	0.369	Spike	P	0 - 20
2423880	Titanium	4.23	Spike	P	0 - 20
2423880	Vanadium	0.152	Spike	P	0 - 20
2423880	Zinc	0.992	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P432574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423880	Aluminum	0.982	Spike	P	0 - 20
2423880	Antimony	0.474	Spike	P	0 - 20
2423880	Arsenic	0.743	Spike	P	0 - 20
2423880	Barium	0.0589	Spike	P	0 - 20
2423880	Beryllium	2.18	Spike	P	0 - 20
2423880	Boron	0.569	Spike	P	0 - 20
2423880	Cadmium	0.930	Spike	P	0 - 20
2423880	Chromium	0.337	Spike	P	0 - 20
2423880	Cobalt	0.592	Spike	P	0 - 20
2423880	Copper	0.525	Spike	P	0 - 20
2423880	Lead	0.0898	Spike	P	0 - 20
2423880	Manganese	0.129	Spike	P	0 - 20
2423880	Molybdenum	0.798	Spike	P	0 - 20
2423880	Nickel	0.740	Spike	P	0 - 20
2423880	Selenium	0.244	Spike	P	0 - 20
2423880	Silver	1.26	Spike	P	0 - 20
2423880	Thallium	1.66	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432673

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423799	Chloride	0.430	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432677

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423799	Sulfate	0.527	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432731

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423991	Chloride	0.123	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P432733

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423991	Sulfate	0.234	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P432630

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423965	Ammonia-N	1.83	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P432554

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424032	Kjeldahl Nitrogen	0.263	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P432637

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423949	NO2NO3-N	0.466	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P432607

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2424031	Total-P	0.561	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P432458

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423733	Aldrin	25.0	Spike	P	0 - 41
2423733	Alpha-BHC	0.463	Spike	P	0 - 25
2423733	Alpha-Chlordane	14.5	Spike	P	0 - 32
2423733	Beta-BHC	5.01	Spike	P	0 - 33
2423733	Beta-Cyfluthrin	29.2	Spike	P	0 - 43
2423733	Bifenthrin	26.5	Spike	P	0 - 52
2423733	Carbophenothion	10.1	Spike	P	0 - 49
2423733	Chlorothalonil	8.21	Spike	P	0 - 82
2423733	Cis-Nonachlor	20.3	Spike	P	0 - 33
2423733	Cypermethrin	19.0	Spike	P	0 - 51
2423733	Dacthal	1.20	Spike	P	0 - 27
2423733	DDD-p,p'	21.9	Spike	P	0 - 39
2423733	DDE-p,p'	14.8	Spike	P	0 - 31
2423733	DDT-p,p'	9.04	Spike	P	0 - 29
2423733	Delta-BHC	2.05	Spike	P	0 - 35
2423733	Deltamethrin	9.99	Spike	P	0 - 100
2423733	Dichlobenil	5.96	Spike	P	0 - 40
2423733	Dicofol	1.68	Spike	P	0 - 37
2423733	Dieldrin	4.35	Spike	P	0 - 27
2423733	Endosulfan I	4.46	Spike	P	0 - 23
2423733	Endosulfan II	12.9	Spike	P	0 - 34
2423733	Endosulfan Sulfate	8.62	Spike	P	0 - 36
2423733	Endrin	5.61	Spike	P	0 - 45
2423733	Endrin Aldehyde	25.5	Spike	P	0 - 76
2423733	Endrin Ketone	0.302	Spike	P	0 - 43
2423733	Esfenvalerate	18.6	Spike	P	0 - 51
2423733	Ethalfuralin	5.28	Spike	P	0 - 22
2423733	Fenpropathrin	12.2	Spike	P	0 - 49
2423733	Gamma-BHC	4.20	Spike	P	0 - 28
2423733	Gamma-Chlordane	19.0	Spike	P	0 - 40
2423733	Heptachlor	12.5	Spike	P	0 - 29
2423733	Heptachlor Epoxide	3.82	Spike	P	0 - 33
2423733	Hexachlorobenzene	6.96	Spike	P	0 - 36
2423733	Kepone	29.4	Spike	P	0 - 85
2423733	Lambda-Cyhalothrin	17.9	Spike	P	0 - 55
2423733	Methoprene	23.6	Spike	P	0 - 53
2423733	Methoxychlor	4.26	Spike	P	0 - 50
2423733	MGK-264	3.17	Spike	P	0 - 43
2423733	Mirex	47.8	Spike	F	0 - 40
2423733	Oxychlordane	10.0	Spike	P	0 - 31
2423733	Permethrin	3.71	Spike	P	0 - 50
2423733	Phenothrin	2.16	Spike	P	0 - 58
2423733	Piperonyl Butoxide	13.1	Spike	P	0 - 100
2423733	Prallethrin	9.76	Spike	P	0 - 39
2423733	Tau-Fluvalinate	22.1	Spike	P	0 - 54
2423733	Tetramethrin	6.68	Spike	P	0 - 51
2423733	Trans-Nonachlor	14.9	Spike	P	0 - 39
2423733	Triclosan Methyl	1.73	Spike	P	0 - 31
2423733	Trifluralin	3.93	Spike	P	0 - 22
2423853	PCB-1016	14.7	Spike	P	0 - 25
2423853	PCB-1260	5.60	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8276

Batch ID: P432458

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423853	Chlordane	11.5	Spike	P	0 - 28
2423853	Toxaphene	2.07	Spike	P	0 - 27

Reference Method: EPA 8321B

Batch ID: P432513

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423624	2,4-D	9.87	Spike	P	0 - 30
2423624	2,4,5-T	11.7	Spike	P	0 - 30
2423624	Acetaminophen	5.63	Spike	P	0 - 30
2423624	Acetamiprid	1.54	Spike	P	0 - 30
2423624	Afidopyropen	7.09	Spike	P	0 - 30
2423624	Bentazon	0.403	Spike	P	0 - 30
2423624	Benzovindiflupyr	0.910	Spike	P	0 - 30
2423624	Carbamazepine	16.2	Spike	P	0 - 30
2423624	Clothianidin	8.82	Spike	P	0 - 30
2423624	Dinotefuran	8.90	Spike	P	0 - 30
2423624	Diuron	18.7	Spike	P	0 - 30
2423624	Fenuron	3.12	Spike	P	0 - 30
2423624	Fluridone	0.668	Spike	P	0 - 30
2423624	Hydrocodone	1.33	Spike	P	0 - 30
2423624	Ibuprofen	4.41	Spike	P	0 - 30
2423624	Imazapyr	12.7	Spike	P	0 - 30
2423624	Imidacloprid	6.98	Spike	P	0 - 30
2423624	Linuron	6.25	Spike	P	0 - 30
2423624	Mandestrobin	8.02	Spike	P	0 - 30
2423624	MCP	6.52	Spike	P	0 - 30
2423624	Naproxen	3.64	Spike	P	0 - 30
2423624	Primidone	4.10	Spike	P	0 - 30
2423624	Pyraclostrobin	4.19	Spike	P	0 - 30
2423624	Silvex	1.93	Spike	P	0 - 30
2423624	Thiamethoxam	9.16	Spike	P	0 - 30
2423624	Tolfenpyrad	10.3	Spike	P	0 - 30
2423624	Triclopyr	1.12	Spike	P	0 - 30

Reference Method: EPA 8321B

Batch ID: P432522

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423690	Acesulfame K	4.04	Spike	P	0 - 30
2423690	AMPA	24.1	Spike	P	0 - 30
2423690	Endothall	3.08	Spike	P	0 - 30
2423690	Glufosinate	8.77	Spike	P	0 - 30
2423690	Glyphosate	1.43	Spike	P	0 - 30
2423690	Sucralose	2.14	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: SM 2320 B-2011
Batch ID: P432598

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423991	Total Alkalinity	1.60	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P433062

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423686	TDS	2.17	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P432600

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423991	Fluoride	0.492	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P432828

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2423988	Organic Carbon	0.736	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2424009
Field Sample ID: G3SD0159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	94.9	P	37 - 129
EPA 8270E	Decachlorobiphenyl	84.3	P	26 - 115
EPA 8270E	Tetrachloro-m-xylene	64.0	P	30 - 101
EPA 8270E	Tetrachloro-m-xylene	78.9	P	29 - 95.0
EPA 8276	Decachlorobiphenyl	60.2	P	28 - 102
EPA 8276	PCNB	98.6	P	49 - 115

Lab Sample ID: 2424010
Field Sample ID: G3SD0096

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	92.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	61.5	P	30 - 160
EPA 8321B	Carbamazepine-d10	50.1	P	30 - 160
EPA 8321B	Diuron-d6	46.3	P	30 - 160
EPA 8321B	Endothall-d6	105	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	58.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	62.2	P	30 - 160
EPA 8321B	Primidone-d5	70.5	P	30 - 160
EPA 8321B	Sucralose-d6	89.6	P	30 - 160

Lab Sample ID: 2424011
Field Sample ID: G3SD0159

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	98.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	61.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	45.1	P	30 - 160
EPA 8321B	Diuron-d6	38.5	P	30 - 160
EPA 8321B	Endothall-d6	106	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	66.0	P	30 - 160
EPA 8321B	Ibuprofen-d3	64.0	P	30 - 160
EPA 8321B	Primidone-d5	71.6	P	30 - 160
EPA 8321B	Sucralose-d6	98.4	P	30 - 160

Lab Sample ID: 2424012
Field Sample ID: G3SD0011

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	93.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	63.1	P	30 - 160
EPA 8321B	Carbamazepine-d10	50.5	P	30 - 160
EPA 8321B	Diuron-d6	34.0	P	30 - 160
EPA 8321B	Endothall-d6	111	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	51.8	P	30 - 160
EPA 8321B	Ibuprofen-d3	69.1	P	30 - 160
EPA 8321B	Primidone-d5	65.4	P	30 - 160
EPA 8321B	Sucralose-d6	105	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2424013

Field Sample ID: FB_07132023

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	94.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	61.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	75.2	P	30 - 160
EPA 8321B	Diuron-d6	55.9	P	30 - 160
EPA 8321B	Endothall-d6	96.5	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	95.2	P	30 - 160
EPA 8321B	Ibuprofen-d3	74.4	P	30 - 160
EPA 8321B	Primidone-d5	69.7	P	30 - 160
EPA 8321B	Sucralose-d6	98.1	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A120392

Included Lab Sample IDs: 2423987, 2423989

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A120394

Included Lab Sample IDs: 2423987, 2423989

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

Reference Method: EPA 8321B

Run ID: A120416

Included Lab Sample IDs: 2424010, 2424011, 2424012, 2424013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	82.5	88.4	P/P	60 - 160
AMPA	88.4	83.7	P/P	60 - 160
AMPA	93.1	99.1	P/P	60 - 160
Endothall	84.1	94.8	P/P	60 - 160
Endothall	90.9	84.1	P/P	60 - 160
Glufosinate	77.0	84.3	P/P	60 - 160
Glufosinate	84.3	84.3	P/P	60 - 160
Glyphosate	89.7	92.6	P/P	60 - 160
Glyphosate	92.6	87.4	P/P	60 - 160
Glyphosate	96.6	93.3	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A120424

Included Lab Sample IDs: 2424010, 2424011, 2424012, 2424013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	115	125	P/P	60 - 160
Acesulfame K	125	129	P/P	60 - 160
Sucralose	89.8	90.3	P/P	60 - 160
Sucralose	92.2	89.8	P/P	60 - 160

Reference Method: SM 2320 B-2011

Run ID: A120442

Included Lab Sample IDs: 2423987, 2423989

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.5	96.7	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A120442

Included Lab Sample IDs: 2423987, 2423989

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A120445

Included Lab Sample IDs: 2424010, 2424011, 2424012, 2424013

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	88.5	101	P/P	50 - 150
2,4,5-T	98.5	109	P/P	50 - 150
Acetaminophen	82.2	83.3	P/P	60 - 160
Acetamiprid	122	120	P/P	50 - 150
Afidopyropen	104	102	P/P	50 - 150
Bentazon	129	142	P/P	50 - 160
Benzovindiflupyr	107	115	P/P	50 - 150
Carbamazepine	106	112	P/P	60 - 150
Clothianidin	105	98.4	P/P	60 - 150
Dinotefuran	122	118	P/P	50 - 150
Diuron	112	136	P/P	60 - 160
Fenuron	110	112	P/P	60 - 150
Fluridone	114	106	P/P	60 - 160
Hydrocodone	125	121	P/P	60 - 150
Ibuprofen	86.7	92.5	P/P	50 - 160
Imazapyr	99.4	97.8	P/P	50 - 150
Imidacloprid	108	108	P/P	60 - 150
Imidacloprid	98.6	108	P/P	60 - 150
Linuron	101	107	P/P	60 - 150
Mandestrobin	108	111	P/P	50 - 150
MCPP	101	113	P/P	50 - 150
Naproxen	134	115	P/P	50 - 160
Primidone	94.0	103	P/P	60 - 150
Pyraclostrobin	121	117	P/P	60 - 150
Silvex	104	92.6	P/P	50 - 150
Thiamethoxam	104	101	P/P	50 - 150
Tolfenpyrad	107	99.1	P/P	60 - 150
Triclopyr	92.5	106	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A120455

Included Lab Sample IDs: 2423988, 2423990

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.2	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A120460

Included Lab Sample IDs: 2423988, 2423990

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A120474

Included Lab Sample IDs: 2423988, 2423990

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.0	103	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A120476

Included Lab Sample IDs: 2424016, 2424017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	103	102	P/P	90 - 110
Aluminum	104	103	P/P	90 - 110
Antimony	100	99.9	P/P	90 - 110
Antimony	101	100	P/P	90 - 110
Arsenic	101	101	P/P	90 - 110
Arsenic	101	99.1	P/P	90 - 110
Barium	101	102	P/P	90 - 110
Barium	102	98.6	P/P	90 - 110
Beryllium	97.4	96.4	P/P	90 - 110
Beryllium	98.2	97.4	P/P	90 - 110
Boron	100	99.1	P/P	90 - 110
Boron	99.1	104	P/P	90 - 110
Cadmium	100	100	P/P	90 - 110
Cadmium	99.8	100	P/P	90 - 110
Chromium	97.6	98.8	P/P	90 - 110
Chromium	98.8	99.6	P/P	90 - 110
Cobalt	101	100	P/P	90 - 110
Cobalt	102	101	P/P	90 - 110
Copper	97.4	97.3	P/P	90 - 110
Copper	98.0	97.4	P/P	90 - 110
Lead	96.7	95.7	P/P	90 - 110
Lead	96.9	96.7	P/P	90 - 110
Manganese	98.7	99.6	P/P	90 - 110
Manganese	99.6	99.2	P/P	90 - 110
Molybdenum	99.1	98.2	P/P	90 - 110
Molybdenum	99.4	99.1	P/P	90 - 110
Nickel	99.3	98.2	P/P	90 - 110
Nickel	100	99.3	P/P	90 - 110
Selenium	101	99.9	P/P	90 - 110
Selenium	99.9	98.9	P/P	90 - 110
Silver	103	104	P/P	90 - 110
Silver	104	103	P/P	90 - 110
Thallium	99.3	98.9	P/P	90 - 110
Thallium	99.8	99.3	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A120479

Included Lab Sample IDs: 2423987, 2423989

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	103	P/P	90 - 110
Chloride	99.3	99.8	P/P	90 - 110
Sulfate	102	102	P/P	90 - 110
Sulfate	99.1	98.9	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A120480

Included Lab Sample IDs: 2424016, 2424017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A120480

Included Lab Sample IDs: 2424016, 2424017

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	99.7	101	P/P	90 - 110
Iron	102	104	P/P	90 - 110
Iron	103	103	P/P	90 - 110
Magnesium	102	102	P/P	90 - 110
Magnesium	103	103	P/P	90 - 110
Potassium	101	99.7	P/P	90 - 110
Potassium	103	102	P/P	90 - 110
Sodium	102	103	P/P	90 - 110
Sodium	95.5	92.2	P/P	90 - 110
Strontium	101	97.4	P/P	90 - 110
Strontium	104	101	P/P	90 - 110
Tin	101	99.8	P/P	90 - 110
Tin	102	102	P/P	90 - 110
Titanium	101	100	P/P	90 - 110
Titanium	101	98.7	P/P	90 - 110
Vanadium	101	99.5	P/P	90 - 110
Vanadium	103	101	P/P	90 - 110
Zinc	101	98.8	P/P	90 - 110
Zinc	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120487

Included Lab Sample IDs: 2423988

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A120493

Included Lab Sample IDs: 2423990

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	97.0	99.8	P/P	90 - 110

Reference Method: EPA 8270E

Run ID: A120535

Included Lab Sample IDs: 2424009

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	104		P	80 - 120
Alpha-BHC	103		P	80 - 120
Alpha-Chlordane	104		P	80 - 120
Beta-BHC	93.9		P	80 - 120
Beta-Cyfluthrin	98.3		P	80 - 120
Bifenthrin	98.2		P	80 - 120
Carbophenothion	101		P	80 - 120
Chlorothalonil	111		P	80 - 120
Cis-Nonachlor	106		P	80 - 120
Cypermethrin	104		P	80 - 120
Dacthal	104		P	80 - 120
DDD-p,p'	105		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A120535
Included Lab Sample IDs: 2424009

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
DDE-p,p'	104		P	80 - 120
DDT-p,p'	100		P	80 - 120
Delta-BHC	104		P	80 - 120
Deltamethrin	94.8		P	80 - 120
Dichlobenil	103		P	80 - 120
Dicofol	95.2		P	80 - 120
Dieldrin	100		P	80 - 120
Endosulfan I	104		P	80 - 120
Endosulfan II	104		P	80 - 120
Endosulfan Sulfate	106		P	80 - 120
Endrin	103		P	80 - 120
Endrin Aldehyde	103		P	80 - 120
Endrin Ketone	106		P	80 - 120
Esfenvalerate	102		P	80 - 120
Ethalfuralin	94.6		P	80 - 120
Fenpropathrin	102		P	80 - 120
Gamma-BHC	104		P	80 - 120
Gamma-Chlordane	105		P	80 - 120
Heptachlor	98.5		P	80 - 120
Heptachlor Epoxide	100		P	80 - 120
Hexachlorobenzene	106		P	80 - 120
Kepone	52.2*		F	80 - 120
Lambda-Cyhalothrin	101		P	80 - 120
Methoprene	103		P	80 - 120
Methoxychlor	97.5		P	80 - 120
MGK-264	105		P	80 - 120
Mirex	105		P	80 - 120
Oxychlordane	105		P	80 - 120
Permethrin	102		P	80 - 120
Phenothrin	97.5		P	80 - 120
Piperonyl Butoxide	83.0		P	80 - 120
Prallethrin	103		P	80 - 120
Tau-Fluvalinate	101		P	80 - 120
Tetramethrin	94.8		P	80 - 120
Trans-Nonachlor	103		P	80 - 120
Triclosan Methyl	100		P	80 - 120
Trifluralin	101		P	80 - 120

Reference Method: EPA 8270E
Run ID: A120536
Included Lab Sample IDs: 2424009

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
PCB-1016	104		P	80 - 120
PCB-1260	95.2		P	80 - 120

Reference Method: SM 5310 B-2011
Run ID: A120544
Included Lab Sample IDs: 2423988, 2423990

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

Reference Method: SM 5310 B-2011

Run ID: A120544

Included Lab Sample IDs: 2423988, 2423990

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.6	97.8	P/P	90 - 110
Organic Carbon	97.1	96.7	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A120640

Included Lab Sample IDs: 2424009

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	90.3		P	80 - 120
Toxaphene	85.8		P	80 - 120

* 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: NU-094-1	Color (true)	101					0.492	
EPA 180.1 Rev. 2.0	Turbidity	99.7					7.25	
EPA 200.7 Rev. 4.4	Calcium	102	104	102				1.58
	Iron	107	102	105	106			1.91
	Magnesium	106	101	103	104			1.52
	Potassium	104	99.6	102	98.3			1.73
	Sodium	105	103	94.1				0.478
	Strontium	103	101	101	96.6			0.293
	Tin	102	102	102	102			0.369
	Titanium	99.7	101	106	102			4.23
	Vanadium	101	101	101	104			0.152
	Zinc	98.0	98.6	99.6	102			0.992
EPA 200.8 Rev. 5.4	Aluminum	103	95.8	94.5	102			0.982
	Antimony	101	102	102	102			0.474
	Arsenic	99.8	101	99.9	102			0.743
	Barium	103	104	104	102			0.0589
	Beryllium	93.4	94.1	92.0	91.9			2.18
	Boron	105	103	102	106			0.569
	Cadmium	102	100	99.5	101			0.930
	Chromium	96.2	95.1	95.5	95.2			0.337
	Cobalt	101	100	99.8	98.5			0.592
	Copper	97.8	98.4	97.9	97.7			0.525
	Lead	96.7	97.5	97.4	97.6			0.0898
	Manganese	98.2	97.2	97.0	95.3			0.129
	Molybdenum	97.5	101	99.8	100			0.798
	Nickel	99.5	99.0	98.3	96.4			0.740
	Selenium	102	103	103	101			0.244
	Silver	105	105	104	103			1.26
	Thallium	98.4	99.3	101	100			1.66
EPA 300.0 Rev. 2.1	Chloride	104	104	106			0.430	
	Chloride	98.8	99.3	101			0.123	
	Sulfate	100	98.4	100			0.527	
	Sulfate	96.5	91.8	97.3			0.234	
EPA 350.1 Rev. 2.0	Ammonia-N	93.0	99.6	97.6				1.83
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	100	100				0.263
EPA 353.2 Rev. 2.0	NO2NO3-N	98.5	94.0	93.5				0.466
EPA 365.1 Rev. 2.0	Total-P	101	102	103				0.561
EPA 8270E	Aldrin	42.0	51.6	40.2				25.0
	Alpha-BHC	78.3	86.5	86.1				0.463
	Alpha-Chlordane	61.8	72.1	62.3				14.5
	Beta-BHC	48.2	57.2	54.4				5.01
	Beta-Cyfluthrin	53.8	49.4	36.8				29.2
	Bifenthrin	58.2	54.8	42.0				26.5
	Carbophenothion	50.6	52.7	47.6				10.1
	Chlorothalonil	73.3	77.6	84.3				8.21
	Cis-Nonachlor	63.5	64.0	52.2				20.3
	Cypermethrin	82.1	72.7	60.1				19.0
	Dacthal	78.5	89.2	88.1				1.20
	DDD-p,p'	57.0	64.3	51.6				21.9
	DDE-p,p'	61.7	68.4	59.0				14.8
	DDT-p,p'	62.1	63.1	57.7				9.04
	Delta-BHC	71.7	75.1	76.7				2.05
	Deltamethrin	64.3	52.8	58.3				9.99
	Dichlobenil	57.4	73.4	69.2				5.96

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision SMP	MS
			LCS			
EPA 8270E	Dicofol	58.9	65.5	64.4		1.68
	Dieldrin	63.9	64.4	61.6		4.35
	Endosulfan I	62.3	66.6	63.6		4.46
	Endosulfan II	72.5	83.3	73.2		12.9
	Endosulfan Sulfate	77.0	80.9	74.2		8.62
	Endrin	69.4	75.8	71.7		5.61
	Endrin Aldehyde	55.8	77.9	60.3		25.5
	Endrin Ketone	96.3	109	109		0.302
	Esfenvalerate	74.6	63.7	52.8		18.6
	Ethalfuralin	59.9	67.9	64.4		5.28
	Fenpropathrin	74.2	66.5	58.9		12.2
	Gamma-BHC	85.5	104	100		4.20
	Gamma-Chlordane	64.4	72.5	59.9		19.0
	Heptachlor	62.9	74.9	66.1		12.5
	Heptachlor Epoxide	64.0	68.7	66.2		3.82
	Hexachlorobenzene	51.3	55.7	51.9		6.96
	Kepone	66.1	65.0	48.4		29.4
	Lambda-Cyhalothrin	67.2	58.0	48.5		17.9
	Methoprene	60.1	60.5	47.7		23.6
	Methoxychlor	74.7	82.1	85.7		4.26
	MGK-264	79.6	90.9	88.0		3.17
	Mirex	48.3	54.4	33.4		47.8
	Oxychlordane	63.2	72.5	65.6		10.0
	PCB-1016	81.7	68.9	79.8		14.7
	PCB-1260	72.9	56.9	60.2		5.60
	Permethrin	65.9	60.3	58.1		3.71
	Phenothrin	58.4	56.1	54.9		2.16
	Piperonyl Butoxide	80.6	83.7	95.4		13.1
	Prallethrin	67.6	78.0	70.7		9.76
	Tau-Fluvalinate	73.4	60.2	48.2		22.1
	Tetramethrin	80.2	78.7	84.1		6.68
	Trans-Nonachlor	63.8	69.8	60.1		14.9
	Triclosan Methyl	62.4	65.1	64.0		1.73
	Trifluralin	62.6	64.9	62.4		3.93
EPA 8276	Chlordane	72.1	54.2	60.8		11.5
	Toxaphene	71.3	63.9	62.6		2.07
EPA 8321B	2,4-D	87.3	100	90.6		9.87
	2,4,5-T	84.5	98.0	87.2		11.7
	Acesulfame K	90.2	113	118		4.04
	Acetaminophen	55.9	61.8	58.4		5.63
	Acetamiprid	58.4	86.6	88.0		1.54
	Afidopyropen	46.8	90.4	84.2		7.09
	AMPA	84.6	93.3	73.2		24.1
	Bentazon	108	111	112		0.403
	Benzovindiflupyr	72.7	79.8	80.5		0.910
	Carbamazepine	68.4	75.9	64.5		16.2
	Clothianidin	82.1	89.3	81.7		8.82
	Dinotefuran	94.7	89.6	81.9		8.90
	Diuron	47.3	49.9	60.2		18.7
	Endothall	87.2	90.6	93.4		3.08
	Fenuron	83.7	76.8	74.5		3.12
	Fluridone	75.4	88.2	87.6		0.668
	Glufosinate	91.6	67.4	73.6		8.77
	Glyphosate	98.1	73.8	74.9		1.43

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Hydrocodone	85.9	82.2	83.3		1.33
	Ibuprofen	63.7	75.2	72.0		4.41
	Imazapyr	76.3	99.0	87.2		12.7
	Imidacloprid	76.5	104	96.7		6.98
	Linuron	69.0	64.4	68.5		6.25
	Mandestrobin	70.9	85.2	78.6		8.02
	MCP	88.8	108	101		6.52
	Naproxen	65.6	65.9	68.3		3.64
	Primidone	72.7	71.2	74.2		4.10
	Pyraclostrobin	76.5	87.0	83.4		4.19
	Silvex	85.5	89.3	91.1		1.93
	Sucralose	89.1	96.3	99.5		2.14
	Thiamethoxam	69.7	71.6	65.3		9.16
	Tolfenpyrad	53.5	56.4	50.9		10.3
	Triclopyr	83.1	93.3	94.3		1.12
SM 2320 B-2011	Total Alkalinity	98.3			1.60	
SM 2540 C-2015	TDS	96.5			2.17	
SM 2540 D-2015	TSS	103				
SM 4500-F- C-2011	Fluoride	102	103	102		0.492
SM 5310 B-2011	Organic Carbon	94.3	92.3	93.6		0.736

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2423987, 2423989
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2423987, 2423989
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2424016, 2424017
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2424016, 2424017
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2423987, 2423989
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2423987, 2423989
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2423988, 2423990
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2423988, 2423990
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2423988, 2423990
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2423988, 2423990
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS	2424009
EPA 8270E	PCBs in water matrices by GC/MS/MS	2424009
EPA 8276	Chlordane and Toxaphene in water matrices by GC/MS with Negative Chemical Ionization	2424009
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2424010, 2424011, 2424012, 2424013
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2423987, 2423989
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2424016, 2424017
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2423987, 2423989
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2423987, 2423989
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2423987, 2423989
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2423988, 2423990

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	07/14/2023			07/14/2023 15:13	Samantha L Bates	2423987, 2423989
EPA 180.1 Rev. 2.0	07/14/2023			07/14/2023 14:43	Khloe J Berg	2423987
	07/14/2023			07/14/2023 14:45	Khloe J Berg	2423989
EPA 200.7 Rev. 4.4	07/14/2023	07/17/2023 13:20	George D Taylor	07/18/2023 17:41	Samatha Luckman	2424017
	07/14/2023	07/17/2023 13:20	George D Taylor	07/18/2023 21:10	Samatha Luckman	2424016
EPA 200.8 Rev. 5.4	07/14/2023	07/17/2023 13:20	George D Taylor	07/18/2023 16:34	Emily M Philpot	2424017
	07/14/2023	07/17/2023 13:20	George D Taylor	07/18/2023 19:08	Emily M Philpot	2424016
EPA 300.0 Rev. 2.1	07/14/2023			07/18/2023 15:54	James L Waggeberby	2423987
	07/14/2023			07/19/2023 13:17	James L Waggeberby	2423989
EPA 350.1 Rev. 2.0	07/14/2023			07/18/2023 12:42	Ping Hua	2423988
	07/14/2023			07/18/2023 12:44	Ping Hua	2423990
EPA 351.2 Rev. 2.0	07/14/2023	07/17/2023 14:14	Simonne.V. Calhoun	07/18/2023 17:32	Samantha L Bates	2423988
	07/14/2023	07/17/2023 14:14	Simonne.V. Calhoun	07/18/2023 17:34	Samantha L Bates	2423990
EPA 353.2 Rev. 2.0	07/14/2023			07/18/2023 13:32	Judith K. Clark	2423988
	07/14/2023			07/18/2023 13:33	Judith K. Clark	2423990
EPA 365.1 Rev. 2.0	07/14/2023	07/18/2023 13:58	Alexis Price	07/19/2023 12:13	Simonne.V. Calhoun	2423988
	07/14/2023	07/18/2023 13:58	Alexis Price	07/19/2023 13:30	Simonne.V. Calhoun	2423990
EPA 8270E	07/14/2023	07/17/2023 08:00	Fe-Val Siddell	07/20/2023 00:53	Michael Poppell	2424009
	07/14/2023	07/17/2023 08:00	Fe-Val Siddell	07/21/2023 02:28	Lipi Saha	2424009
EPA 8276	07/14/2023	07/17/2023 08:00	Fe-Val Siddell	07/21/2023 13:57	Arthur Maknenko	2424009
EPA 8321B	07/14/2023	07/15/2023 10:00	Hana Lee	07/15/2023 23:43	Tae K Lee	2424010
	07/14/2023	07/15/2023 10:00	Hana Lee	07/15/2023 23:56	Tae K Lee	2424011
	07/14/2023	07/15/2023 10:00	Hana Lee	07/16/2023 00:22	Tae K Lee	2424012
	07/14/2023	07/15/2023 10:00	Hana Lee	07/16/2023 00:35	Tae K Lee	2424013
	07/14/2023	07/15/2023 10:00	Hana Lee	07/16/2023 11:30	Tae K Lee	2424010
	07/14/2023	07/15/2023 10:00	Hana Lee	07/17/2023 01:14	Tae K Lee	2424010
	07/14/2023	07/15/2023 10:00	Hana Lee	07/17/2023 01:28	Tae K Lee	2424011
	07/14/2023	07/15/2023 10:00	Hana Lee	07/17/2023 01:56	Tae K Lee	2424012
	07/14/2023	07/15/2023 10:00	Hana Lee	07/17/2023 02:10	Tae K Lee	2424013
	07/14/2023	07/17/2023 09:00	Hoor Shaik	07/18/2023 11:43	Juyoung Kim	2424010
	07/14/2023	07/17/2023 09:00	Hoor Shaik	07/18/2023 12:02	Juyoung Kim	2424011
	07/14/2023	07/17/2023 09:00	Hoor Shaik	07/18/2023 12:20	Juyoung Kim	2424012
	07/14/2023	07/17/2023 09:00	Hoor Shaik	07/18/2023 12:39	Juyoung Kim	2424013
	07/14/2023	07/17/2023 09:00	Hoor Shaik	07/18/2023 18:48	Juyoung Kim	2424010
SM 2320 B-2011	07/14/2023			07/18/2023 01:34	Adam P Silver	2423987
	07/14/2023			07/18/2023 01:43	Adam P Silver	2423989
SM 2340 B-2011	07/14/2023			07/18/2023 17:41	Samatha Luckman	2424017
	07/14/2023			07/18/2023 21:10	Samatha Luckman	2424016
SM 2540 C-2015	07/14/2023			07/18/2023 16:04	Yijie Li	2423987, 2423989
SM 2540 D-2015	07/14/2023			07/18/2023 16:04	Yijie Li	2423987, 2423989

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500-F- C-2011	07/14/2023			07/18/2023 01:34	Adam P Silver	2423987
	07/14/2023			07/18/2023 01:43	Adam P Silver	2423989
SM 5310 B-2011	07/14/2023			07/20/2023 13:47	Elise M. Gillis	2423988
	07/14/2023			07/20/2023 20:33	Elise M. Gillis	2423990