

Andrew Tintle
State of Florida DEP Chemistry Laboratory
2600 Blair Stone Rd
Rm A416D MS6512
Tallahassee, FL 32399-2400

SOIL-68



Final Report

Soil/Hazardous Waste Proficiency Testing

Soil Study

Open Date: 10/19/09

Close Date: 12/03/09

Report Issued Date: 12/21/09

December 21, 2009

Andrew Tintle
State of Florida DEP Chemistry Laboratory
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Rm A416D MS6512
Tallahassee, FL 32399-2400

Enclosed is your final report for ERA's SOIL-68 Proficiency Testing (PT) study. Your final report includes an evaluation of all results submitted by your laboratory to ERA.

Data Evaluation Protocols: All analytes in ERA's SOIL-68 Proficiency Testing (PT) study have been evaluated using the following tiered approach. If the analyte is listed in the most current National Environmental Laboratory Accreditation Conference (NELAC) PT Field of Testing tables, the evaluation was completed by comparing the reported result to the acceptance limits generated using the criteria contained in the NELAC FoPT tables. If the analyte is not included in the NELAC FoPT tables, the reported result has been evaluated using the procedures outlined in ERA's Standard Operating Procedure for the Generation of Performance Acceptance Limits (SOP 0260).

Corrective Action Help: As part of your accreditation(s), you may be required to identify the root cause of any "Not Acceptable" results, implement the necessary corrective actions, and then satisfy your PT requirements by participating in a Supplemental (QuiK™ Response) or future ERA PT study. ERA's technical staff is available to help your laboratory resolve any technical issues that may be impairing your PT performance and possibly affecting your routine data quality. Our laboratory and technical staff have well over three hundred years of collective experience in performing the full range of environmental analyses. As part of our technical support, ERA offers QC samples that can be helpful in helping you work through your technical issues.

Thank you for your participation in ERA's SOIL-68 Proficiency Testing study. If you have any questions, please contact Shawn Kassner, Proficiency Testing Manager, PT Curtis Wood, Director of Regulatory Affairs and Business Development, at 1-800-372-0122.

Sincerely,



Shawn Kassner
Proficiency Testing Manager



Jay R. McBurney
Quality Program Manager

attachments
smk

Report Recipient	Contact/Phone Number	Reporting Type
Florida	Steve Arms / 904-791-1502	All Analytes

SOIL-68 Definitions & Study Discussion

Study Dates: 10/19/09 - 12/03/09

Report Issued: 12/21/09

SOIL Study Definitions

The Reported Value is the value that the laboratory reported to ERA.

The ERA assigned value for the Organic Proficiency Testing Standards is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation as applicable. The ERA assigned value for the Inorganic Proficiency Testing Standards, with the exception of the TCLP Metals in Soil, is equal to the maximum amount of the parameter available in the standard by applicable EPA methodologies. The ERA assigned value for the TCLP metals is equal to the mean of ERA's internal analytical analyses. All NELAC parameters not added to a standard are given an assigned Value of "0", per the guidance issued by the NELAC Board of Directors, on December 14, 2000. Non-NELAC parameters not added to a standard may be given an assigned value of less than a minimum verified concentration as determined in the background soil for applicable EPA methodologies.

The Acceptance Limits are established per the NELAC PT program criteria or ERA's SOP for the Generation of Performance Acceptance Limits™ as applicable.

The Performance Evaluation:

Acceptable	= Reported Value falls within the Acceptance Limits.
Not Acceptable	= Reported Value falls outside the Acceptance Limits.
No Evaluation	= Reported Value cannot be evaluated.
Not Reported	= No Value reported.

The Method Description is the method the laboratory reported to ERA.

SOIL Study Discussion

ERA's SOIL-68 Proficiency Testing (PT) study has been reviewed by ERA senior management and certified compliant with the requirements of the National Environmental Laboratory Accreditation Conference (NELAC), Proficiency Testing Program Standards, Chapter 2, July 2003.

Per the requirements of the NELAC Proficiency Testing Program, a full review of all homogeneity, stability, and accuracy verification data was completed. All analytical verification data for all analytes in the Soil study standards met the acceptance criteria contained in the NELAC Proficiency Testing Program Standards, Chapter 2, July 2003. If the analyte is included in the NELAC Fields of Testing list the acceptance limits were calculated based on the NELAC Proficiency Testing Program Standards, Chapter 2, July 2003. If the analyte is not included in the NELAC Fields of Testing list, the acceptance limits were calculated using the procedures outlined in ERA's Standard Operating Procedure for the Generation of Performance Acceptance Limits (SOP 0260, Rev. 2.0).

The data submitted by participating laboratories was also examined for study anomalies. There were no anomalies observed during the statistical review of the data.

ERA's SOIL-68 Proficiency Testing study reports shall not be reproduced except in its entirety and not without the permission of the participating laboratory. The report must not be used by the participating laboratories to claim product endorsement any agency of the U. S. government.

The data contained herein are confidential and intended for your use only.

If you have any questions or concerns regarding your assessment in ERA's SOIL Proficiency Testing program, please contact Shawn Kassner, Proficiency Testing Manager, or Curtis Wood, Director of Regulatory Affairs and Business Development, at 1-800-372-0122.



Study: **SOIL-68**

ERA Customer Number: **S744803**

Laboratory Name: **State of Florida DEP
Chemistry Laboratory**

Inorganic Results



SOIL-68 Final Complete Report

Andrew Tintle
QA Officer
State of Florida DEP Chemistry Laboratory
2600 Blair Stone Rd
Rm A416D MS6512
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EPA ID: FL01181
ERA Customer Number: S744803
Report Issued: 12/21/09
Study Dates: 10/19/09 - 12/03/09

Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
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SOIL Cyanide in Soil (cat# 621)

1635	Cyanide, total	mg/kg	60.5	70.6	19.2 - 93.0	Acceptable	EPA 9012B
1640	Reactive Cyanide	mg/kg		< 25.0		Not Reported	

SOIL Ignitability/Flashpoint (cat# 874)

1780	Ignitability/Flashpoint	°F	147	143	126 - 160	Acceptable	EPA 1010A
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Organic Results



SOIL-68 Final Complete Report

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SOIL Nitroaromatics & Nitramines in Soil (cat# 871)

9306	4-Amino-2,6-dinitrotoluene	µg/kg		2220	972 - 2440	Not Reported	
9303	2-Amino-4,6-dinitrotoluene	µg/kg		2260	636 - 3130	Not Reported	
6160	1,3-Dinitrobenzene	µg/kg	6650	7270	4150 - 8280	Acceptable	EPA 8270D
6185	2,4-Dinitrotoluene	µg/kg		7670	1910 - 12300	Not Reported	
6190	2,6-Dinitrotoluene	µg/kg		5570	1990 - 7970	Not Reported	
9522	HMX	µg/kg		1820	297 - 2760	Not Reported	
5015	Nitrobenzene	µg/kg		8780	2170 - 13500	Not Reported	
9507	2-Nitrotoluene	µg/kg		1720	1240 - 2070	Not Reported	
9510	3-Nitrotoluene	µg/kg		2850	1540 - 3710	Not Reported	
9513	4-Nitrotoluene	µg/kg		5400	3070 - 6740	Not Reported	
9432	RDX	µg/kg		2180	762 - 2790	Not Reported	
6415	Tetryl	µg/kg		0.00		Not Reported	
6885	1,3,5-Trinitrobenzene	µg/kg	1570	2230	1140 - 2450	Acceptable	EPA 8270D
9651	2,4,6-Trinitrotoluene	µg/kg		0.00		Not Reported	

SOIL Organochlorine Pesticides in Soil (cat# 468)

7025	Aldrin	µg/kg	234	361	102 - 444	Acceptable	EPA 8081B
7110	alpha-BHC	µg/kg	76.9	120	25.4 - 150	Acceptable	EPA 8081B
7115	beta-BHC	µg/kg	165	259	41.9 - 329	Acceptable	EPA 8081B
7105	delta-BHC	µg/kg	331	490	124 - 638	Acceptable	EPA 8081B
7120	gamma-BHC(Lindane)	µg/kg	249	350	90.6 - 434	Acceptable	EPA 8081B
7240	alpha-Chlordane	µg/kg	115	154	49.1 - 201	Acceptable	EPA 8081B
7245	gamma-Chlordane	µg/kg	169	231	86.8 - 282	Acceptable	EPA 8081B
7355	4,4'-DDD	µg/kg	283	405	132 - 504	Acceptable	EPA 8081B
7360	4,4'-DDE	µg/kg	371	458	157 - 591	Acceptable	EPA 8081B
7365	4,4'-DDT	µg/kg	165	231	51.0 - 309	Acceptable	EPA 8081B
7470	Dieldrin	µg/kg	221	290	99.4 - 378	Acceptable	EPA 8081B
7540	Endrin	µg/kg	154	181	69.1 - 249	Acceptable	EPA 8081B
7530	Endrin aldehyde	µg/kg	256	439	48.0 - 483	Acceptable	EPA 8081B
7535	Endrin ketone	µg/kg	319	410	97.4 - 518	Acceptable	EPA 8081B
7510	Endosulfan I	µg/kg	159	290	52.0 - 319	Acceptable	EPA 8081B
7515	Endosulfan II	µg/kg	219	290	70.6 - 339	Acceptable	EPA 8081B
7520	Endosulfan sulfate	µg/kg	180	256	50.3 - 346	Acceptable	EPA 8081B
7685	Heptachlor	µg/kg	162	217	59.8 - 277	Acceptable	EPA 8081B
7690	Heptachlor epoxide	µg/kg	234	353	117 - 443	Acceptable	EPA 8081B
7810	Methoxychlor	µg/kg	372	471	54.6 - 708	Acceptable	EPA 8081B

SOIL Chlordane in Soil (cat# 628)

7250	Chlordane, technical	µg/kg	410	415	80.0 - 554	Acceptable	EPA 8081B
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SOIL Toxaphene in Soil (cat# 627)

8250	Toxaphene	µg/kg	553	1050	105 - 1490	Acceptable	EPA 8081B
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SOIL Organophosphorus Pesticides in Soil (cat# 878)

7075	Azinphos-methyl (Guthion)	µg/kg	701	875	38.0 - 1140	Acceptable	EPA 8141B
7300	Chlorpyrifos	µg/kg	461	740	203 - 814	Acceptable	EPA 8141B
7395	Demeton-O	µg/kg		0.00		Not Reported	
7385	Demeton-S	µg/kg		0.00		Not Reported	
7410	Diazinon	µg/kg	552	802	431 - 882	Acceptable	EPA 8141B
8610	Dichlorvos (DDVP)	µg/kg		0.00		Not Reported	
8625	Disulfoton	µg/kg	539	784	250 - 862	Acceptable	EPA 8141B
7955	Ethyl Parathion	µg/kg	372	446	94.0 - 631	Acceptable	EPA 8141B
7770	Malathion	µg/kg	519	736	249 - 810	Acceptable	EPA 8141B
7825	Methyl Parathion	µg/kg	614	826	182 - 909	Acceptable	EPA 8141B
7985	Phorate	µg/kg	687	968	444 - 1060	Acceptable	EPA 8141B
8110	Ronnel	µg/kg		833	307 - 916	Not Reported	
8200	Stirophos (tetrachlorovinphos)	µg/kg		945	0.00 - 1040	Not Reported	
8185	Terbufos	µg/kg	704	867	429 - 954	Acceptable	EPA 8141B

SOIL PCBs in Soil (cat# 624)

8880	Aroclor 1016	mg/kg	< 0.100	0.00		Acceptable	EPA 8082A
8885	Aroclor 1221	mg/kg	< 0.0667	0.00		Acceptable	EPA 8082A
8890	Aroclor 1232	mg/kg	< 0.150	0.00		Acceptable	EPA 8082A
8895	Aroclor 1242	mg/kg	< 0.100	0.00		Acceptable	EPA 8082A
8900	Aroclor 1248	mg/kg	17.7	22.4	6.22 - 33.9	Acceptable	EPA 8082A
8905	Aroclor 1254	mg/kg	< 0.0667	0.00		Acceptable	EPA 8082A
8910	Aroclor 1260	mg/kg	< 0.100	0.00		Acceptable	EPA 8082A

