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SOIL-66



Final Report

Soil/Hazardous Waste Proficiency Testing

Soil Study

Open Date: 04/20/09

Close Date: 06/04/09

Report Issued Date: 06/25/09

June 25, 2009

Andrew Tintle
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Enclosed is your final report for ERA's SOIL-66 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-66 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-66 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-66 Definitions & Study Discussion

Study Dates: 04/20/09 - 06/04/09

Report Issued: 06/25/09

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-66 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-66 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-66**

ERA Customer Number: **S744803**

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

Inorganic Results



SOIL-66 Final Complete Report

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EPA ID: FL01181
ERA Customer Number: S744803
Report Issued: 06/25/09
Study Dates: 04/20/09 - 06/04/09

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	52.9	63.4	20.4 - 76.9	Acceptable	EPA 9012B
1640	Reactive Cyanide	mg/kg		< 25.0		Not Reported	

SOIL Ignitability/Flashpoint (cat# 874)

1780	Ignitability/Flashpoint	°F	112	111	94.0 - 128	Acceptable	EPA 1010A
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Organic Results



SOIL-66 Final Complete Report

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SOIL Nitroaromatics & Nitramines in Soil (cat# 871)

9306	4-Amino-2,6-dinitrotoluene	µg/kg		4540	2220 - 5050	Not Reported	
9303	2-Amino-4,6-dinitrotoluene	µg/kg		2260	1160 - 2720	Not Reported	
6160	1,3-Dinitrobenzene	µg/kg	1680	1750	990 - 2150	Acceptable	EPA 8270D
6185	2,4-Dinitrotoluene	µg/kg		7100	1870 - 12100	Not Reported	
6190	2,6-Dinitrotoluene	µg/kg		10500	4510 - 16200	Not Reported	
9522	HMX	µg/kg		1690	602 - 2400	Not Reported	
5015	Nitrobenzene	µg/kg		6350	1540 - 10300	Not Reported	
9507	2-Nitrotoluene	µg/kg		8590	5750 - 11000	Not Reported	
9510	3-Nitrotoluene	µg/kg		2120	857 - 3100	Not Reported	
9513	4-Nitrotoluene	µg/kg		1670	984 - 2380	Not Reported	
9432	RDX	µg/kg		2180	1140 - 2660	Not Reported	
6415	Tetryl	µg/kg		0.00		Not Reported	
6885	1,3,5-Trinitrobenzene	µg/kg	2720	2970	1010 - 4300	Acceptable	EPA 8270D
9651	2,4,6-Trinitrotoluene	µg/kg		4960	2670 - 5550	Not Reported	

SOIL Organochlorine Pesticides in Soil (cat# 468)

7025	Aldrin	µg/kg	217	361	106 - 464	Acceptable	EPA 8081B
7110	alpha-BHC	µg/kg	216	287	77.8 - 360	Acceptable	EPA 8081B
7115	beta-BHC	µg/kg	247	309	57.0 - 417	Acceptable	EPA 8081B
7105	delta-BHC	µg/kg	133	179	38.8 - 255	Acceptable	EPA 8081B
7120	gamma-BHC(Lindane)	µg/kg	129	184	39.8 - 240	Acceptable	EPA 8081B
7240	alpha-Chlordane	µg/kg	268	402	138 - 532	Acceptable	EPA 8081B
7245	gamma-Chlordane	µg/kg	51.9	56.1	15.3 - 82.8	Acceptable	EPA 8081B
7355	4,4'-DDD	µg/kg	310	368	124 - 480	Acceptable	EPA 8081B
7360	4,4'-DDE	µg/kg	396	416	146 - 557	Acceptable	EPA 8081B
7365	4,4'-DDT	µg/kg	152	170	38.5 - 246	Acceptable	EPA 8081B
7470	Dieldrin	µg/kg	65.3	70.0	11.0 - 108	Acceptable	EPA 8081B
7540	Endrin	µg/kg	196	219	91.3 - 305	Acceptable	EPA 8081B
7530	Endrin aldehyde	µg/kg	165	245	24.5 - 313	Acceptable	EPA 8081B
7535	Endrin ketone	µg/kg	418	445	109 - 575	Acceptable	EPA 8081B
7510	Endosulfan I	µg/kg	149	326	62.6 - 359	Acceptable	EPA 8081B
7515	Endosulfan II	µg/kg	130	241	46.7 - 265	Acceptable	EPA 8081B
7520	Endosulfan sulfate	µg/kg	343	402	87.8 - 566	Acceptable	EPA 8081B
7685	Heptachlor	µg/kg	74.8	75.4	22.1 - 115	Acceptable	EPA 8081B
7690	Heptachlor epoxide	µg/kg	94.3	107	35.9 - 149	Acceptable	EPA 8081B
7810	Methoxychlor	µg/kg	205	210	21.0 - 346	Acceptable	EPA 8081B

SOIL Chlordane in Soil (cat# 628)

7250	Chlordane, technical	µg/kg	412	428	89.8 - 614	Acceptable	EPA 8081B
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SOIL Toxaphene in Soil (cat# 627)

8250	Toxaphene	µg/kg	1066	1130	113 - 1480	Acceptable	EPA 8081B
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SOIL Organophosphorus Pesticides in Soil (cat# 878)

7075	Azinphos-methyl (Guthion)	µg/kg	440	495	0.00 - 772	Acceptable	EPA 8141B NPD
7300	Chlorpyrifos	µg/kg	296	601	12.9 - 661	Acceptable	EPA 8141B NPD
7395	Demeton-O	µg/kg	< 5.00	0.00		Acceptable	EPA 8141B NPD
7385	Demeton-S	µg/kg	< 5.00	0.00		Acceptable	EPA 8141B NPD
7410	Diazinon	µg/kg	265	356	65.1 - 399	Acceptable	EPA 8141B NPD
8610	Dichlorvos (DDVP)	µg/kg		0.00		Not Reported	
8625	Disulfoton	µg/kg	485	784	59.8 - 862	Acceptable	EPA 8141B NPD
7955	Ethyl Parathion	µg/kg	759	964	66.3 - 1350	Acceptable	EPA 8141B NPD
7770	Malathion	µg/kg	543	736	6.14 - 810	Acceptable	EPA 8141B NPD
7825	Methyl Parathion	µg/kg	611	826	0.00 - 1010	Acceptable	EPA 8141B NPD
7985	Phorate	µg/kg	113	148	31.3 - 163	Acceptable	EPA 8141B NPD
8110	Ronnel	µg/kg		785	0.00 - 864	Not Reported	
8200	Stirophos (tetrachlorovinphos)	µg/kg		756	44.2 - 832	Not Reported	
8185	Terbufos	µg/kg	350	428	253 - 507	Acceptable	EPA 8141B NPD

SOIL PCBs in Soil (cat# 624)

8880	Aroclor 1016	mg/kg	< 0.0100	0.00		Acceptable	EPA 8082A
8885	Aroclor 1221	mg/kg	< 0.00667	0.00		Acceptable	EPA 8082A
8890	Aroclor 1232	mg/kg	< 0.0150	0.00		Acceptable	EPA 8082A
8895	Aroclor 1242	mg/kg	2.88	3.32	0.532 - 4.89	Acceptable	EPA 8082A
8900	Aroclor 1248	mg/kg	< 0.00667	0.00		Acceptable	EPA 8082A
8905	Aroclor 1254	mg/kg	< 0.00667	0.00		Acceptable	EPA 8082A
8910	Aroclor 1260	mg/kg	< 0.0100	0.00		Acceptable	EPA 8082A

