



A Waters Company

Thekkekalathil Chandrasekhar
State of Florida DEP Chemistry Laboratory
2600 Blair Stone Road
Room A416D, MS6512
Tallahassee, FL 32399-2400

SOIL-72



Final Report

Soil/Hazardous Waste Proficiency Testing

Soil Study

Open Date: 10/18/10

Close Date: 12/02/10

Report Issued Date: 12/21/10



A Waters Company

December 21, 2010

Thekkekalathil Chandrasekhar
State of Florida DEP Chemistry Laboratory
2600 Blair Stone Road
Room A416D, MS6512
Tallahassee, FL 32399-2400

Enclosed is your final report for ERA's SOIL-72 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-72 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-72 Proficiency Testing study. If you have any questions, please contact the proficiency testing department, or myself, at 1-800-372-0122.

Sincerely,

Jay R. McBurney
Quality Program Manager

attachments
jrm



A Waters Company

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



A Waters Company

SOIL-72 Definitions & Study Discussion

Study Dates: 10/18/10 - 12/02/10

Report Issued: 12/21/10

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-72 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-72 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 Jay McBurney, Quality Program Manager, or the proficiency testing department at 1-800-372-0122.





A Waters Company

Study: **SOIL-72**

ERA Customer Number: **S744803**

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

Inorganic Results





A Waters Company

SOIL-72 Final Complete Report

Thekkekalathil Chandrasekhar
QA Officer
State of Florida DEP Chemistry Laboratory
2600 Blair Stone Road
Room A416D, MS6512
Tallahassee, FL 32399-2400
(850) 245-8075

EPA ID: FL01181
ERA Customer Number: S744803
Report Issued: 12/21/10
Study Dates: 10/18/10 - 12/02/10

Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
-----------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------

SOIL Cyanide in Soil (cat# 621)

1635	Cyanide, total	mg/kg	62.8	61.1	30.6 - 79.5	Acceptable	EPA 9012B
1923	Reactive Cyanide	mg/kg		< 25.0		Not Reported	

SOIL Ignitability/Flashpoint (cat# 874)

1780	Ignitability/Flashpoint	°F	115	111	94.0 - 128	Acceptable	EPA 1010
------	-------------------------	----	-----	-----	------------	------------	----------





A Waters Company

Study: **SOIL-72**

ERA Customer Number: **S744803**

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

Organic Results





A Waters Company

SOIL-72 Final Complete Report

Thekkekalathil Chandrasekhar
QA Officer
State of Florida DEP Chemistry Laboratory
2600 Blair Stone Road
Room A416D, MS6512
Tallahassee, FL 32399-2400
(850) 245-8075

EPA ID:
ERA Customer Number:
Report Issued:
Study Dates:

FL01181
S744803
12/21/10
10/18/10 - 12/02/10

Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
-----------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------

SOIL Nitroaromatics & Nitramines in Soil (cat# 871)

9306	4-Amino-2,6-dinitrotoluene	µg/kg		1700	999 - 1870	Not Reported	
9303	2-Amino-4,6-dinitrotoluene	µg/kg		2120	1150 - 2780	Not Reported	
6160	1,3-Dinitrobenzene	µg/kg	1790	2130	1150 - 2720	Acceptable	EPA 8270D
6185	2,4-Dinitrotoluene	µg/kg		7090	1680 - 11100	Not Reported	
6190	2,6-Dinitrotoluene	µg/kg		2250	566 - 3280	Not Reported	
9522	HMX	µg/kg		0.00		Not Reported	
5015	Nitrobenzene	µg/kg		6440	1470 - 9980	Not Reported	
9507	2-Nitrotoluene	µg/kg		8590	6370 - 9560	Not Reported	
9510	3-Nitrotoluene	µg/kg		11800	8530 - 13700	Not Reported	
9513	4-Nitrotoluene	µg/kg		2220	1380 - 2850	Not Reported	
9432	RDX	µg/kg		1790	766 - 2850	Not Reported	
6415	Tetryl	µg/kg		0.00		Not Reported	
6885	1,3,5-Trinitrobenzene	µg/kg	1260	1500	852 - 1870	Acceptable	EPA 8270D
9651	2,4,6-Trinitrotoluene	µg/kg		2160	1270 - 2380	Not Reported	

SOIL Organochlorine Pesticides in Soil (cat# 468)

7025	Aldrin	µg/kg	147	181	49.8 - 232	Acceptable	EPA 8081B
7110	alpha-BHC	µg/kg	276	363	101 - 455	Acceptable	EPA 8081B
7115	beta-BHC	µg/kg	190	220	39.1 - 313	Acceptable	EPA 8081B
7105	delta-BHC	µg/kg	309	410	97.0 - 519	Acceptable	EPA 8081B
7120	gamma-BHC(Lindane)	µg/kg	347	464	124 - 564	Acceptable	EPA 8081B
7240	alpha-Chlordane	µg/kg	70.7	78.5	24.7 - 110	Acceptable	EPA 8081B
7245	gamma-Chlordane	µg/kg	167	209	80.0 - 263	Acceptable	EPA 8081B
7355	4,4'-DDD	µg/kg	342	383	130 - 500	Acceptable	EPA 8081B
7360	4,4'-DDE	µg/kg	301	322	114 - 447	Acceptable	EPA 8081B
7365	4,4'-DDT	µg/kg	181	196	43.7 - 272	Acceptable	EPA 8081B
7470	Dieldrin	µg/kg	285	326	110 - 411	Acceptable	EPA 8081B
7540	Endrin	µg/kg	123	95.4	29.0 - 148	Acceptable	EPA 8081B
7530	Endrin aldehyde	µg/kg	230	306	30.6 - 361	Acceptable	EPA 8081B
7535	Endrin ketone	µg/kg	315	351	84.7 - 457	Acceptable	EPA 8081B
7510	Endosulfan I	µg/kg	124	220	31.5 - 242	Acceptable	EPA 8081B
7515	Endosulfan II	µg/kg	162	242	40.3 - 266	Acceptable	EPA 8081B
7520	Endosulfan sulfate	µg/kg	422	439	95.0 - 608	Acceptable	EPA 8081B
7685	Heptachlor	µg/kg	302	347	97.2 - 438	Acceptable	EPA 8081B
7690	Heptachlor epoxide	µg/kg	268	315	104 - 396	Acceptable	EPA 8081B
7810	Methoxychlor	µg/kg	416	403	45.4 - 621	Acceptable	EPA 8081B

SOIL Chlordane in Soil (cat# 628)

7250	Chlordane, technical	µg/kg	627	622	126 - 835	Acceptable	EPA 8081B
------	----------------------	-------	-----	-----	-----------	------------	-----------





A Waters Company

SOIL-72 Final Complete Report

Thekkekalathil Chandrasekhar
QA Officer
State of Florida DEP Chemistry Laboratory
2600 Blair Stone Road
Room A416D, MS6512
Tallahassee, FL 32399-2400
(850) 245-8075

EPA ID: FL01181
ERA Customer Number: S744803
Report Issued: 12/21/10
Study Dates: 10/18/10 - 12/02/10

Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
-----------	---------	-------	----------------	----------------	-------------------	------------------------	--------------------

SOIL Toxaphene in Soil (cat# 627)

8250	Toxaphene	µg/kg	603	723	72.3 - 1040	Acceptable	EPA 8081B
------	-----------	-------	-----	-----	-------------	------------	-----------

SOIL Organophosphorus Pesticides in Soil (cat# 878)

7075	Azinphos-methyl (Guthion)	µg/kg	1000	826	97.9 - 1230	Acceptable	EPA 8141B
7300	Chlorpyrifos	µg/kg	< 1.67	0.00		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	581	578	0.00 - 934	Acceptable	EPA 8141B
8610	Dichlorvos (DDVP)	µg/kg		0.00		Not Reported	
8625	Disulfoton	µg/kg	603	795	150 - 874	Acceptable	EPA 8141B
7955	Ethyl Parathion	µg/kg	864	848	0.00 - 1440	Acceptable	EPA 8141B
7770	Malathion	µg/kg	721	787	146 - 1090	Acceptable	EPA 8141B
7825	Methyl Parathion	µg/kg	102	151	43.6 - 166	Acceptable	EPA 8141B
7985	Phorate	µg/kg	256	303	77.7 - 395	Acceptable	EPA 8141B
8110	Ronnel	µg/kg		112	13.9 - 175	Not Reported	
8200	Stirophos (tetrachlorovinphos)	µg/kg		321	9.30 - 353	Not Reported	
8185	Terbufos	µg/kg	< 1.67	0.00		Acceptable	EPA 8141B

SOIL PCBs in Soil (cat# 624)

8880	Aroclor 1016	mg/kg	< 0.010	0.00		Acceptable	EPA 8082
8885	Aroclor 1221	mg/kg	< 0.00667	0.00		Acceptable	EPA 8082
8890	Aroclor 1232	mg/kg	< 0.015	0.00		Acceptable	EPA 8082
8895	Aroclor 1242	mg/kg	10.2	12.2	3.00 - 17.5	Acceptable	EPA 8082
8900	Aroclor 1248	mg/kg	< 0.00667	0.00		Acceptable	EPA 8082
8905	Aroclor 1254	mg/kg	< 0.00667	0.00		Acceptable	EPA 8082
8910	Aroclor 1260	mg/kg	< 0.010	0.00		Acceptable	EPA 8082

