



A Waters Company

Thekkekalathil Chandrasekhar
State of Florida DEP - Innov Park Lab
2600 Blair Stone Road
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Tallahassee, FL 32399-2499

SOIL-73



Final Report

Soil/Hazardous Waste Proficiency Testing

Soil Study

Open Date: 01/24/11

Close Date: 03/10/11

Report Issued Date: 03/29/11



A Waters Company

March 29, 2011

Thekkekalathil Chandrasekhar
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Enclosed is your final report for ERA's SOIL-73 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-73 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-73 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



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



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SOIL-73 Definitions & Study Discussion

Study Dates: 01/24/11 - 03/10/11

Report Issued: 03/29/11

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. The assigned values are directly traceable to the commercially prepared starting materials used to manufacture the PT standards. 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-73 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-73 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.





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Study: **SOIL-73**

ERA Customer Number: **S744810**

Laboratory Name: **State of Florida DEP -
Innov Park Lab**

Organic Results





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SOIL-73 Final Complete Report

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

FL01182
S744810
03/29/11
01/24/11 - 03/10/11

Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
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SOIL Volatiles in Soil (cat# 623)

4315	Acetone	µg/kg	165	280	40.0 - 503	Acceptable	EPA 8260C
4320	Acetonitrile	µg/kg		659	148 - 967	Not Reported	
4325	Acrolein	µg/kg		0.00		Not Reported	
4375	Benzene	µg/kg	156	149	90.0 - 203	Acceptable	EPA 8260C
4385	Bromobenzene	µg/kg		91.6	56.6 - 136	Not Reported	
4395	Bromodichloromethane	µg/kg	< 0.800	0.00		Acceptable	EPA 8260C
4400	Bromoform	µg/kg	< 2.00	0.00		Acceptable	EPA 8260C
4950	Bromomethane	µg/kg	< 2.00	0.00		Acceptable	EPA 8260C
4410	2-Butanone (MEK)	µg/kg	< 20.0	0.00		Acceptable	EPA 8260C
5000	tert-Butyl methyl ether (MTBE)	µg/kg	37.1	34.9	14.1 - 59.0	Acceptable	EPA 8260C
4450	Carbon disulfide	µg/kg		0.00		Not Reported	
4455	Carbon tetrachloride	µg/kg	< 0.800	0.00		Acceptable	EPA 8260C
4475	Chlorobenzene	µg/kg	< 0.800	0.00		Acceptable	EPA 8260C
4575	Chlorodibromomethane	µg/kg	< 0.800	0.00		Acceptable	EPA 8260C
4485	Chloroethane	µg/kg	214	171	78.7 - 268	Acceptable	EPA 8260C
4500	2-Chloroethylvinylether	µg/kg		0.00		Not Reported	
4505	Chloroform	µg/kg	101	87.2	52.5 - 122	Acceptable	EPA 8260C
4960	Chloromethane	µg/kg	141	114	31.7 - 188	Acceptable	EPA 8260C
4570	1,2-Dibromo-3-chloropropane (DBCP)	µg/kg		0.00		Not Reported	
4585	1,2-Dibromoethane (EDB)	µg/kg		142	89.5 - 201	Not Reported	
4595	Dibromomethane	µg/kg		0.00		Not Reported	
4610	1,2-Dichlorobenzene	µg/kg	< 2.00	0.00		Acceptable	EPA 8260C
4615	1,3-Dichlorobenzene	µg/kg	< 2.00	0.00		Acceptable	EPA 8260C
4620	1,4-Dichlorobenzene	µg/kg	< 2.00	0.00		Acceptable	EPA 8260C
4625	Dichlorodifluoromethane (Freon 12)	µg/kg	< 2.00	0.00		Acceptable	EPA 8260C
4630	1,1-Dichloroethane	µg/kg	160	146	83.0 - 210	Acceptable	EPA 8260C
4635	1,2-Dichloroethane	µg/kg	237	186	107 - 257	Acceptable	EPA 8260C
4640	1,1-Dichloroethylene	µg/kg	237	176	113 - 271	Acceptable	EPA 8260C
4645	cis-1,2-Dichloroethylene	µg/kg	47.7	43.3	25.6 - 63.0	Acceptable	EPA 8260C
4700	trans-1,2-Dichloroethylene	µg/kg	136	126	81.2 - 183	Acceptable	EPA 8260C
4655	1,2-Dichloropropane	µg/kg	183	183	107 - 244	Acceptable	EPA 8260C
4680	cis-1,3-Dichloropropylene	µg/kg	< 2.00	0.00		Acceptable	EPA 8260C



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01





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Anal. No.	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description
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SOIL Volatiles in Soil (cat# 623) (Continued)

4685	trans-1,3-Dichloropropylene	µg/kg	136	147	75.6 - 207	Acceptable	EPA 8260C
4765	Ethylbenzene	µg/kg	122	117	65.1 - 167	Acceptable	EPA 8260C
4860	2-Hexanone	µg/kg	223	281	84.6 - 415	Acceptable	EPA 8260C
4900	Isopropylbenzene	µg/kg		113	56.4 - 183	Not Reported	
4975	Methylene chloride	µg/kg	92.5	88.2	41.0 - 129	Acceptable	EPA 8260C
4995	4-Methyl-2-pentanone (MIBK)	µg/kg	191	211	92.4 - 307	Acceptable	EPA 8260C
5005	Naphthalene	µg/kg		82.8	39.6 - 121	Not Reported	
5100	Styrene	µg/kg	56.8	48.7	29.8 - 75.1	Acceptable	EPA 8260C
5105	1,1,1,2-Tetrachloroethane	µg/kg		0.00		Not Reported	
5110	1,1,2,2-Tetrachloroethane	µg/kg	< 2.00	0.00		Acceptable	EPA 8260C
5115	Tetrachloroethylene	µg/kg	< 2.00	0.00		Acceptable	EPA 8260C
5140	Toluene	µg/kg	93.0	92.9	53.2 - 131	Acceptable	EPA 8260C
5155	1,2,4-Trichlorobenzene	µg/kg		97.3	33.6 - 147	Not Reported	
5160	1,1,1-Trichloroethane	µg/kg	123	109	61.6 - 156	Acceptable	EPA 8260C
5165	1,1,2-Trichloroethane	µg/kg	50.5	48.6	29.4 - 69.2	Acceptable	EPA 8260C
5170	Trichloroethylene	µg/kg	103	106	54.3 - 151	Acceptable	EPA 8260C
5175	Trichlorofluoromethane	µg/kg	< 2.00	0.00		Acceptable	EPA 8260C
5180	1,2,3-Trichloropropane (TCP)	µg/kg		140	60.3 - 218	Not Reported	
5225	Vinyl acetate	µg/kg		0.00		Not Reported	
5235	Vinyl chloride	µg/kg	< 2.00	0.00		Acceptable	EPA 8260C
5260	Xylenes, total	µg/kg	317	306	152 - 448	Acceptable	EPA 8260C



All analytes are included in ERA's A2LA accreditation. Lab Code: 1539-01

