

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago 2417 Bond Street University Park, IL 60484 Tel: (708)534-5200

TestAmerica Job ID: 500-97239-1

Client Project/Site: MadisonKipp WI001368.0018.00002

For:

ARCADIS U.S., Inc. 126 North Jefferson Street Suite 400 Milwaukee, Wisconsin 53202

Attn: Chris Kubacki

Sanda freduik

Authorized for release by: 6/23/2015 2:33:24 PM

Sandie Fredrick, Project Manager II (920)261-1660

sandie.fredrick@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: ARCADIS U.S., Inc.

Project/Site: MadisonKipp WI001368.0018.00002

TestAmerica Job ID: 500-97239-1

Job ID: 500-97239-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-97239-1

Comments

No additional comments.

Receipt

The sample was received on 6/11/2015 10:30 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2° C.

GC Semi VOA

Method(s) 8082: The laboratory control sample duplicate (LCSD) for batch 291976 recovered outside control limits for the following analytes: AR1016. These analytes were not detected in the associated sample and the laboratory control sample (LCS) was in control; therefore, the data have been reported.MW-22D (500-97239-1)

Method(s) 8082: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 291976 recovered outside control limits for the following analytes:AR1660. MW-22D (500-97239-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: ARCADIS U.S., Inc.

Client Sample ID: MW-22D

Project/Site: MadisonKipp WI001368.0018.00002

TestAmerica Job ID: 500-97239-1

Lab Sample ID: 500-97239-1

No Detections.

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Method Summary

Client: ARCADIS U.S., Inc.

Project/Site: MadisonKipp WI001368.0018.00002

TestAmerica Job ID: 500-97239-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Sample Summary

Client: ARCADIS U.S., Inc.

Project/Site: MadisonKipp WI001368.0018.00002

TestAmerica Job ID: 500-97239-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-97239-1	MW-22D	Water	06/10/15 12:35	06/11/15 10:30

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Client Sample Results

Client: ARCADIS U.S., Inc.

Project/Site: MadisonKipp WI001368.0018.00002

Lab Sample ID: 500-97239-1

TestAmerica Job ID: 500-97239-1

Matrix: Water

Date Collected: 06/10/15 12:35 Date Received: 06/11/15 10:30

Client Sample ID: MW-22D

Method: 8082 - Polychlor Analyte	•	S (PCBS) D Qualifier	y Gas Chror RL	natogra _l MDL	•	SSOIVE D	CI Prepared	Analyzed	Dil Fac
PCB-1016	<0.066		0.39	0.066		— <u> </u>		06/16/15 13:35	1
PCB-1221	<0.20		0.39	0.20	ug/L		06/15/15 12:15	06/16/15 13:35	1
PCB-1232	<0.20		0.39	0.20	ug/L		06/15/15 12:15	06/16/15 13:35	1
PCB-1242	<0.20		0.39	0.20	ug/L		06/15/15 12:15	06/16/15 13:35	1
PCB-1248	<0.20		0.39	0.20	ug/L		06/15/15 12:15	06/16/15 13:35	1
PCB-1254	<0.20		0.39	0.20	ug/L		06/15/15 12:15	06/16/15 13:35	1
PCB-1260	<0.069	*	0.39	0.069	ug/L		06/15/15 12:15	06/16/15 13:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		50 - 120				06/15/15 12:15	06/16/15 13:35	1
DCB Decachlorobiphenyl	109		29 - 126				06/15/15 12:15	06/16/15 13:35	1

Definitions/Glossary

Client: ARCADIS U.S., Inc.

Project/Site: MadisonKipp WI001368.0018.00002

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 500-97239-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits

Glossary

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

QC Association Summary

Client: ARCADIS U.S., Inc.

Project/Site: MadisonKipp WI001368.0018.00002

TestAmerica Job ID: 500-97239-1

GC Semi VOA

Prep Batch: 291976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Batch
500-97239-1	MW-22D	Dissolved	Water	3510C
LCS 500-291976/3-A	Lab Control Sample	Total/NA	Water	3510C
LCSD 500-291976/4-A	Lab Control Sample Dup	Total/NA	Water	3510C
MB 500-291976/1-A	Method Blank	Total/NA	Water	3510C

Analysis Batch: 292108

Lab Sampl	e ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-97239-	1	MW-22D	Dissolved	Water	8082	291976
LCS 500-29	1976/3-A	Lab Control Sample	Total/NA	Water	8082	291976
LCSD 500-	291976/4-A	Lab Control Sample Dup	Total/NA	Water	8082	291976
MB 500-29	1976/1-A	Method Blank	Total/NA	Water	8082	291976

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Surrogate Summary

Client: ARCADIS U.S., Inc.

Project/Site: MadisonKipp WI001368.0018.00002

TestAmerica Job ID: 500-97239-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water Prep Type: Total/NA

	Percent Surrogate Recovery (Acceptance Limits)				
		TCX2	DCB2		
Lab Sample ID	Client Sample ID	(50-120)	(29-126)		
LCS 500-291976/3-A	Lab Control Sample	73	103		
LCSD 500-291976/4-A	Lab Control Sample Dup	54	88		
MB 500-291976/1-A	Method Blank	74	112		
Surrogate Legend					
TCX = Tetrachloro-m-x	ylene				
DCB = DCB Decachlor	obiphenyl				

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water Prep Type: Dissolved

TOV			
TCX	2 DCB2		
t Sample ID (50-12	0) (29-126)		
22D 60	109		
	t Sample ID (50-12	t Sample ID (50-120) (29-126)	t Sample ID (50-120) (29-126)

DCB = DCB Decachlorobiphenyl

TestAmerica Job ID: 500-97239-1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Client: ARCADIS U.S., Inc. Project/Site: MadisonKipp WI001368.0018.00002

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-291976/1-A Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA Analysis Batch: 292108 **Prep Batch: 291976**

	MB MB								
Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.067		0.40	0.067	ug/L		06/15/15 12:15	06/16/15 12:37	1
PCB-1221	<0.20		0.40	0.20	ug/L		06/15/15 12:15	06/16/15 12:37	1
PCB-1232	<0.20		0.40	0.20	ug/L		06/15/15 12:15	06/16/15 12:37	1
PCB-1242	<0.20		0.40	0.20	ug/L		06/15/15 12:15	06/16/15 12:37	1
PCB-1248	<0.20		0.40	0.20	ug/L		06/15/15 12:15	06/16/15 12:37	1
PCB-1254	<0.20		0.40	0.20	ug/L		06/15/15 12:15	06/16/15 12:37	1
PCB-1260	<0.070		0.40	0.070	ug/L		06/15/15 12:15	06/16/15 12:37	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		50 - 120	06/15/15 12:15	06/16/15 12:37	1
DCB Decachlorobiphenyl	112		29 - 126	06/15/15 12:15	06/16/15 12:37	1

Lab Sample ID: LCS 500-291976/3-A

Matrix: Water

Analysis Batch: 292108	Spike	LCS LCS			Prep Batch: 291976 %Rec.
Analyte	Added	Result Qualifier	Unit	D %Rec	Limits
PCB-1016	4.00	3.35	ug/L	84	70 - 130
PCB-1260	4.00	4.41	ug/L	110	70 - 130

	LCS LCS	
Surrogate	%Recovery Qualifier	Limits
Tetrachloro-m-xylene	73	50 - 120
DCB Decachlorobiphenyl	103	29 - 126

Lab Sample ID: LCSD 500-291976/4-A **Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 292108							Prep Ba	ıtch: 29	1976
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	4.00	2.59	*	ug/L		65	70 - 130	25	20
PCB-1260	4.00	3.14	*	ug/L		79	70 - 130	34	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	54		50 - 120
DCB Decachlorobiphenyl	88		29 - 126

Lab Chronicle

Client: ARCADIS U.S., Inc.

Project/Site: MadisonKipp WI001368.0018.00002

TestAmerica Job ID: 500-97239-1

Lab Sample ID: 500-97239-1

Matrix: Water

Client Sample ID: MW-22D Date Collected: 06/10/15 12:35 Date Received: 06/11/15 10:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Dissolved	Prep	3510C			291976	06/15/15 12:15	RTO	TAL CHI
Dissolved	Analysis	8082		1	292108	06/16/15 13:35	GMO	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Certification Summary

Client: ARCADIS U.S., Inc.

Project/Site: MadisonKipp WI001368.0018.00002

TestAmerica Job ID: 500-97239-1

Laboratory: TestAmerica Chicago

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999580010	08-31-15

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A	ARCADIS	
Infrastruc	ture Water Environment Buildu	na

ID.II.	 	
ID#:		

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Page ___ of ___

Lab Work	Order	#	^	20	
500	-	17	2	37	

Contact & Company Name: (hs. s & backi Address: 126 N Jefferson st STFW City State Zip M.	E-mail Addre		@asco 008.0	id: (-cs.(on	· / ੴ	r c	PARAMET	TER ANA	ALYSIS	& METH	IOD		W - Water	ontainer Informatic 40 ml Vial 1 L Amber 250 ml Plastic 500 ml Plastic Encore 2 oz. Glass 4 oz. Glass 9. Other: SE - Sediment NL - NAPL SL - Sludge SW - Sam A - Air Other:	Amber 1011
Special Instructions/Comments: 2.9, 4, 2) Laboratory Informati Lab Name: Test America Cooler packed with ice (*) Specify Turgaround Requirements: \$\frac{1}{2} \text{ or } \frac{1}{2} \text{ or } \frac{1}{2}		ustody Sea act	al (✓)	Fin	nted Name: 7. n 2 nature:	how	don	Printed Name Signatory	K Pon	,	Printed Name: Signature: Firm/Courier:	elinquished	By Printed Signati		- 82- 4 - 12
Shipping Tracking #:	Condition	n/Cooler Te	mp:		e/Time: //0//5		9:00	Date/Time:	ulis	1030	Date/Time:		Date/Ti	me:	

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Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc. Job Number: 500-97239-1

Login Number: 97239 List Source: TestAmerica Chicago

List Number: 1

Creator: James, Jeff A

Creator: James, Jeff A		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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