

Mike Schmoller
Project Manager
Wisconsin Department of Natural Resources
South Central Region
3911 Fish Hatchery Road
Fitchburg, WI 53711

ARCADIS U.S., Inc. 126 North Jefferson Street Suite 400 Milwaukee Wisconsin 53202 Tel 414 276 7742 Fax 414 276 7603

www.arcadis-us.com

**ENVIRONMENT** 

Subject:

Summary of Soil Removal Activities, Madison-Kipp Corporation Site, 201 Waubesa Street, Madison, Wisconsin. Facility ID No. 113125320, BRRTS No. 02-13-558625

Dear Mr. Schmoller:

On behalf of Madison-Kipp Corporation (MKC), this letter provides a summary of the soil removal activities completed in August 2014 for soils containing polychlorinated biphenyls (PCBs). The excavation activities were related to the Madison-Kipp site located at 201 Waubesa Street in Madison, Wisconsin (Figure 1). The activities were performed on City of Madison property adjacent to the rain garden and the northern MKC property boundary as shown on Figure 1. Activities associated with the adjacent rain garden were documented in the *Summary of Rain Garden Soil Removal Activities* report dated August 6, 2014 and submitted to the Wisconsin Department of Natural Resources (WDNR), city of Madison, and United States Environmental Protection Agency (U.S. EPA). The soil removal activities documented in this letter were performed subsequent to the rain garden activities, and were completed in accordance with the electronic correspondence submitted to WDNR on July 16, 2014 and approved by WDNR on August 6, 2014. A WDNR 712.09 submittal certification is included in Attachment A.

The following presents a brief description of the approved work:

- Excavation and disposal of soils containing PCBs at concentrations above the Toxic Substances Control Act (TSCA) disposal limit of 50 milligrams per kilogram to a depth of approximately 4 feet below ground surface.
- Collection of confirmation soil samples along the base and side walls of the excavation area.
- Backfill the excavated area with clean, imported material.

This letter report documents completion of the PCB-related removal activities.

Imagine the result

Date:

October 13, 2014

Contact:

Jennine Trask

Phone:

414.277.6203

Email:

Jennine.Trask@arcadisus.com

Our ref:

WI001368.0020.00001

Mr. Mike Schmoller October 13, 2014

#### **Excavation and Confirmation Soil Sampling Activities**

Excavation and backfill activities were performed on site on August 12 and 13, 2014. Prior to beginning the excavation activities, utility marking arrangements were made through Digger's Hotline (the State of Wisconsin Public Utility clearance service) and discussions with MKC. The work area was also inspected by Madison Gas and Electric due to the presence of nearby overhead utility lines, and activities were authorized to proceed. An excavation permit (Application to Excavate in the Public Right-of-Way) was also secured from the city of Madison to excavate on city property.

Excavation activities were completed by R.W. Collins. All excavated soils were placed into a lined roll-off bin for subsequent disposal. The excavation encompassed a 10 by 10 foot area to a total depth of approximately 4 feet below ground surface and was located on city of Madison property adjacent to the rain garden and the northern MKC property boundary as shown on Figure 1. A total of approximately 27 tons of soil were excavated and disposed of at Environmental Quality's Wayne Disposal Landfill located in Belleville, Michigan. Following the completion of soil removal, the excavation was left open pending confirmation soil sample results.

Confirmation soil samples were collected from three side walls of the excavation as well as the base of the excavation as shown on Figure 1. The northeastern sidewall of the excavation was not sampled since soils were excavated to the clean backfill of the adjacent rain garden. A total of three side wall samples and one base sample were collected during the excavation activities. The soil samples were submitted for laboratory analysis of PCBs by U.S. EPA SW-846 Method 8082. Samples were collected in clean, laboratory-supplied sample containers and placed in a cooler filled with ice. The samples were submitted to Environmental Chemistry Consulting Services, Inc. laboratory located in Madison, Wisconsin, using appropriate chain-of-custody procedures.

PCBs were not detected above the TSCA disposal limit of 50 milligrams per kilogram in any of the samples collected. A summary of the confirmation soil sample analytical results for the excavation area is presented in Table 1. A copy of the laboratory analytical report is included as Attachment B.

This data was provided to WDNR and the city of Madison on August 13, 2014.

Mr. Mike Schmoller October 13, 2014

#### **Backfill**

Backfill activities were performed by R.W. Collins following receipt of soil confirmation sample analytical results on August 13, 2014. The excavation was backfilled to grade with gravel and compacted in one-foot lifts. The excavation area was subsequently paved with 6-inches of asphalt by MKC.

#### Quality Assurance/Quality Control (QA/QC)

Several QA/QC measures were utilized to ensure the integrity of the confirmation soil sampling procedures and laboratory analysis including collecting and analyzing matrix spike/matrix spike duplicate (MS/MSD) samples and field duplicate samples.

Laboratory accuracy was assessed by determining percent recoveries from the analysis of laboratory control samples. Accuracy relative to the sample matrix was assessed by determining percent recoveries from the analysis of MS/MSD samples. One MS/MSD sample was submitted for laboratory analysis.

Precision is defined as the measure of agreement among repeated measurements of the same property under identical or substantially similar locations. One duplicate sample was taken in the field to evaluate the precision of the field sample collection procedures and submitted for laboratory analysis.

An equipment blank sample was collected by routing laboratory provided deionized water through decontaminated sampling equipment. The equipment blank sample was analyzed to check procedural contamination and/or ambient conditions and/or sample container contamination at the site that may cause sample contamination. One equipment blank sample was submitted for laboratory analysis.

After review of the QA/QC sample data, there was no evidence of contamination or other anomalies that would indicate inaccurate or misrepresented data. All QA/QC sample results were within acceptable limits.

#### **Conclusions**

Soil excavation and backfill activities were completed on city of Madison property adjacent to the rain garden and the northern MKC property boundary in accordance with the WDNR-approved correspondence. Soils in this area were excavated and disposed at Environmental Quality's Wayne Disposal Landfill located in Belleville,

Mr. Mike Schmoller October 13, 2014

Michigan. All confirmation soil sample analytical results were below the TSCA disposal limit. No further actions are necessary in this area.

If you have any questions or require any additional information, please contact us at 414.276.7742.

Sincerely,

ARCADIS U.S., Inc.

Christopher D. Kubacki, PE

Senior Engineer

Jennine L. Trask, PE Project Manager

Electronic Copies:

David Crass – Michael Best Linda Hanefeld – WDNR John Hausbeck – City of Madison Alina Satkoski– Madison-Kipp Corporation Ken Zolnierczyk – U.S. EPA

#### **Attachments:**

Table 1 – Excavation Confirmation Soil Sample Analytical Results Figure 1 – Excavation Area and Confirmation Soil Sample Locations Attachment A – Submittal Certification Attachment B – Laboratory Report

Table 1. Summary of Soil Removal Activities - Confirmation Soil Sample Analytical Results, August 2014, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin.

Sample Location	Industrial	TSCA	RG-36	RG-37	RG-38	RG-39			
Sample ID	Direct	Disposal	RG-36 (8/12/2014)	RG-37 (8/12/2014)	RG-38 (8/12/2014)	RG-39 (8/12/2014)	DUP-01 (8/12/2014)		
Sample Date	Contact RCL	Limit	8/12/2014	8/12/2014	8/12/2014	8/12/2014	8/12/2014		
PCBs									
Aroclor 1016	21.2	NE	<0.018	0.70	0.080 J	1.3	2.5		
Aroclor 1221	0.744	NE	< 0.0099	< 0.0090	< 0.0089	< 0.0092	< 0.0095		
Aroclor 1232	0.744	NE	<0.0068	< 0.0061	< 0.0061	< 0.0063	< 0.0065		
Aroclor 1242	0.744	NE	<0.011	< 0.0096	< 0.0095	< 0.0099	< 0.010		
Aroclor 1248	0.744	NE	< 0.013	< 0.012	< 0.011	< 0.012	< 0.012		
Aroclor 1254	0.744	NE	0.026 J	1.1	0.24	4.4	3.7		
Aroclor 1260	0.744	NE	<0.0058	<0.0053	<0.0052	<0.0054	<0.0056		
Total Detected PCBs	NE	50	0.026 J	1.8	0.32	5.7	6.2		

Concentrations presented in milligrams per kilogram (mg/kg).

**100** Exceeds the WDNR's industrial direct contact residual contaminant level.

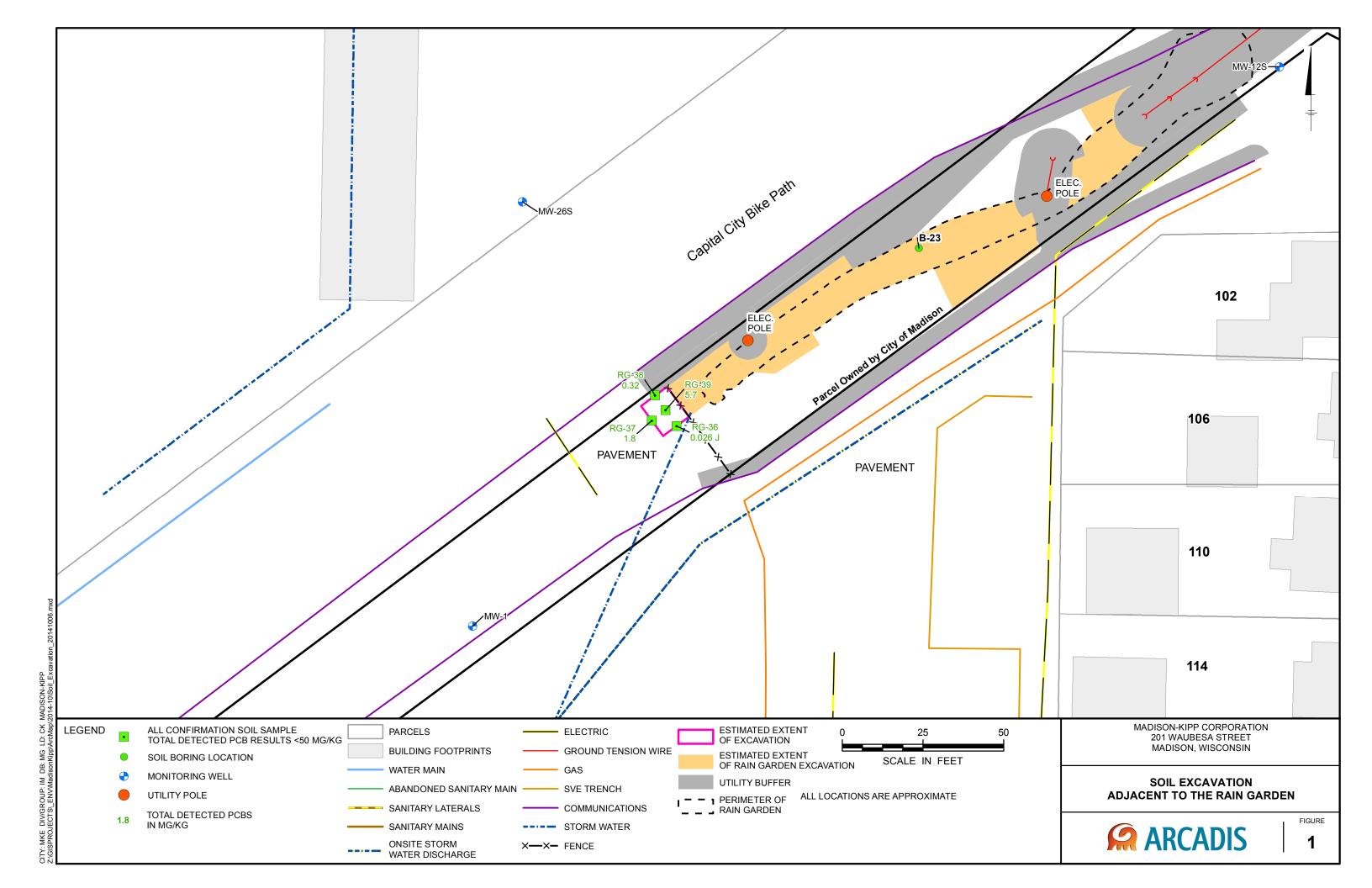
100 Exceeds the Toxic Substance Control Act disposal limit.

Constituent not detected above noted laboratory detection limit.

DUP Duplicate sample.

J Constituent concentration is an approximate value.

NE Criteria not established.PCBs Polychlorinated biphenyls.RCL Residual contaminant level.TSCA Toxic Substance Control Act.





#### Attachment A

**Submittal Certification** 

#### **Submittal Certification**

This attachment was prepared to satisfy the requirements of Wisconsin Administrative Code Chapter NR 712.09 and is applicable to the following document.

Summary of Soil Removal Activities
Madison-Kipp Corporation
201 Waubesa Street
Madison, Wisconsin

In the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; the this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.	at
Signature, title and P.E. number	
I, <u>Christopher Kulack</u> , hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.	
Signature and title Date	



#### Attachment B

Laboratory Report



August 13, 2014

Chris Kubacki ARCADIS 126 N Jefferson St., Ste 400 Milwaukee, WI 53202

RE: Madison Kipp - Madison, WI

Enclosed are the analytical results for the samples received by the laboratory on 08/12/2014.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. These results are in compliance with the 2009 NELAC Standards and the appropriate agencies listed below, unless otherwise noted in the case narrative. This analytical report should be reproduced in its entirety.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica Esser

**Project Manager** 

Certification	List		<b>Expires</b>
DODELAP	DOD ELAP Accreditation (A2LA)	3269.01	03/31/2016
ILEPA	Illinois Secondary NELAP Accreditation	003174	04/30/2015
KDHE	Kansas Secondary NELAP Accreditation	E-10384	04/30/2015
LELAP	Louisiana Primary NELAP Accreditation	04165	06/30/2015
NJDEP	New Jersey Secondary NELAP Accreditation	WI004	06/30/2015
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2014



ARCADIS Project: Madison Kipp - Madison, WI

126 N Jefferson St., Ste 400 Project Number: W1001368
Milwaukee WI, 53202 Project Manager: Chris Kubacki

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
RG-36	A143304-01	Soil	08/12/2014	08/12/2014
RG-37	A143304-02	Soil	08/12/2014	08/12/2014
RG-38	A143304-03	Soil	08/12/2014	08/12/2014
RG-39	A143304-04	Soil	08/12/2014	08/12/2014
DUP-01	A143304-05	Soil	08/12/2014	08/12/2014
EB-01	A143304-06	Water	08/12/2014	08/12/2014
TB-01	A143304-07	Water	08/12/2014	08/12/2014

#### **CASE NARRATIVE**

#### **Sample Receipt Information:**

7 samples were received on 8/12/2014. Samples were hand delivered. Samples were received in acceptable condition.

Please see the chain of custody (COC) document at the end of this report for additional information.



126 N Jefferson St., Ste 400 Milwaukee WI, 53202 Project: Madison Kipp - Madison, WI

Project Number: W1001368 Project Manager: Chris Kubacki

**RG-36** 

Date Sampled

A143304-01 (Soil)

08/12/2014 13:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			E	CCCS					
Polychlorinated Biphenyls by EPA Method 8082 Preparation Batch: A408022									
PCB-1016	ND	0.018	0.24	mg/kg dry	1	08/12/2014	08/12/2014 16:57	EPA 8082A	
PCB-1221	ND	0.0099	0.24	mg/kg dry	1	08/12/2014	08/12/2014 16:57	EPA 8082A	
PCB-1232	ND	0.0068	0.24	mg/kg dry	1	08/12/2014	08/12/2014 16:57	EPA 8082A	
PCB-1242	ND	0.011	0.24	mg/kg dry	1	08/12/2014	08/12/2014 16:57	EPA 8082A	
PCB-1248	ND	0.013	0.24	mg/kg dry	1	08/12/2014	08/12/2014 16:57	EPA 8082A	
PCB-1254	0.026	0.011	0.24	mg/kg dry	1	08/12/2014	08/12/2014 16:57	EPA 8082A	J
PCB-1260	ND	0.0058	0.24	mg/kg dry	1	08/12/2014	08/12/2014 16:57	EPA 8082A	
Total PCBs	0.026	0.018	0.24	mg/kg dry	1	08/12/2014	08/12/2014 16:57	EPA 8082A	J
Surrogate: Decachlorobiphenyl			99.6 %	59.1-127		08/12/2014	08/12/2014 16:57	EPA 8082A	
Surrogate: Tetrachloro-meta-xylene			98.6 %	77.4-119		08/12/2014	08/12/2014 16:57	EPA 8082A	
Classical Chemistry Parameters						Prep	aration Batch: A4	108036	
% Solids	82.7		0.00	% by Weight	1	08/12/2014	08/13/2014 09:00	SM 2540B	



Project: Madison Kipp - Madison, WI

126 N Jefferson St., Ste 400 Milwaukee WI, 53202

Project Number: W1001368 Project Manager: Chris Kubacki

**RG-37** 

**Date Sampled** 08/12/2014 13:05

A143304-02 (Soil)

		Limit of	Limit of						
Analyte	Result	Detection	Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
						*	•		`
			E	CCCS					
Polychlorinated Biphenyls by EPA M	1ethod 8082					Prep	aration Batch: A	108022	
PCB-1016	0.70	0.016	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:22	EPA 8082A	
PCB-1221	ND	0.0090	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:22	EPA 8082A	
PCB-1232	ND	0.0061	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:22	EPA 8082A	
PCB-1242	ND	0.0096	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:22	EPA 8082A	
PCB-1248	ND	0.012	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:22	EPA 8082A	
PCB-1254	1.1	0.0096	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:22	EPA 8082A	
PCB-1260	ND	0.0053	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:22	EPA 8082A	
Total PCBs	1.8	0.016	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:22	EPA 8082A	
Surrogate: Decachlorobiphenyl			95.5 %	59.1-127		08/12/2014	08/12/2014 17:22	EPA 8082A	
Surrogate: Tetrachloro-meta-xylene			100 %	77.4-119		08/12/2014	08/12/2014 17:22	EPA 8082A	
Classical Chemistry Parameters						Prep	aration Batch: A4	108036	
% Solids	91.2		0.00	% by	1	08/12/2014	08/13/2014 09:00	SM 2540B	

Weight



126 N Jefferson St., Ste 400

Milwaukee WI, 53202

Project: Madison Kipp - Madison, WI

Project Number: W1001368 Project Manager: Chris Kubacki

**RG-38** 

**Date Sampled** 08/12/2014 13:10

A143304-03 (Soil)

		Limit of	Limit of						
Analyte	Result	Detection	Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers

A 14		Limit of	Limit of						
Analyte	Result	Detection	Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			E	CCS					
Polychlorinated Biphenyls by EPA	Method 8082					Prep	aration Batch: A4	108022	
PCB-1016	0.080	0.016	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:47	EPA 8082A	J
PCB-1221	ND	0.0089	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:47	EPA 8082A	
PCB-1232	ND	0.0061	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:47	EPA 8082A	
PCB-1242	ND	0.0095	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:47	EPA 8082A	
PCB-1248	ND	0.011	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:47	EPA 8082A	
PCB-1254	0.24	0.0095	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:47	EPA 8082A	
PCB-1260	ND	0.0052	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:47	EPA 8082A	
Total PCBs	0.32	0.016	0.22	mg/kg dry	1	08/12/2014	08/12/2014 17:47	EPA 8082A	
Surrogate: Decachlorobiphenyl			96.4 %	59.1-127		08/12/2014	08/12/2014 17:47	EPA 8082A	
Surrogate: Tetrachloro-meta-xylene			105 %	77.4-119		08/12/2014	08/12/2014 17:47	EPA 8082A	
Classical Chemistry Parameters						Prep	aration Batch: A4	108036	
% Solids	92.5		0.00	% by Weight	1	08/12/2014	08/13/2014 09:00	SM 2540B	



% Solids

Project: Madison Kipp - Madison, WI

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**RG-39** 

**Date Sampled** 08/12/2014 13:15

A143304-04 (Soil)

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers

Analyte	Result	Detection	Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			E	CCS					
Polychlorinated Biphenyls by EPA M	lethod 8082					Prep	aration Batch: A4	108022	
PCB-1016	1.3	0.017	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:12	EPA 8082A	
PCB-1221	ND	0.0092	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:12	EPA 8082A	
PCB-1232	ND	0.0063	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:12	EPA 8082A	
PCB-1242	ND	0.0099	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:12	EPA 8082A	
PCB-1248	ND	0.012	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:12	EPA 8082A	
PCB-1254	4.4	0.0099	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:12	EPA 8082A	
PCB-1260	ND	0.0054	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:12	EPA 8082A	
Total PCBs	5.7	0.017	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:12	EPA 8082A	
Surrogate: Decachlorobiphenyl			98.5 %	59.1-127		08/12/2014	08/12/2014 18:12	EPA 8082A	
Surrogate: Tetrachloro-meta-xylene			105 %	77.4-119		08/12/2014	08/12/2014 18:12	EPA 8082A	
Classical Chemistry Parameters						Prep	aration Batch: A	108036	

0.00

% by

Weight

1

08/12/2014

08/13/2014 09:00

SM 2540B

88.8



Project: Madison Kipp - Madison, WI

126 N Jefferson St., Ste 400 Milwaukee WI, 53202 Project Number: W1001368 Project Manager: Chris Kubacki

DUP-01

A143304-05 (Soil)

Date Sampled 08/12/2014 00:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
						1	,		
			E	CCCS					
Polychlorinated Biphenyls by EPA	Method 8082					Prep	aration Batch: A4	108022	
PCB-1016	2.5	0.017	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:37	EPA 8082A	
PCB-1221	ND	0.0095	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:37	EPA 8082A	
PCB-1232	ND	0.0065	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:37	EPA 8082A	
PCB-1242	ND	0.010	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:37	EPA 8082A	
PCB-1248	ND	0.012	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:37	EPA 8082A	
PCB-1254	3.7	0.010	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:37	EPA 8082A	
PCB-1260	ND	0.0056	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:37	EPA 8082A	
Total PCBs	6.2	0.017	0.23	mg/kg dry	1	08/12/2014	08/12/2014 18:37	EPA 8082A	
Surrogate: Decachlorobiphenyl			101 %	59.1-127		08/12/2014	08/12/2014 18:37	EPA 8082A	
Surrogate: Tetrachloro-meta-xylene			110 %	77.4-119		08/12/2014	08/12/2014 18:37	EPA 8082A	
Classical Chemistry Parameters						Prep	aration Batch: A4	08036	
% Solids	86.0		0.00	% by Weight	1	08/12/2014	08/13/2014 09:00	SM 2540B	



Project: Madison Kipp - Madison, WI

126 N Jefferson St., Ste 400 Milwaukee WI, 53202 Project Number: W1001368 Project Manager: Chris Kubacki

EB-01

Date Sampled 08/12/2014 13:30

A143304-06 (Water)

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers	
			E	CCS						
Polychlorinated Biphenyls by EPA Method 8082 Preparation Batch: A408031										
PCB-1016	ND	0.035	0.13	ug/L	1	08/12/2014	08/12/2014 22:48	EPA 8082A		
PCB-1221	ND	0.020	0.25	ug/L	1	08/12/2014	08/12/2014 22:48	EPA 8082A		
PCB-1232	ND	0.037	0.13	ug/L	1	08/12/2014	08/12/2014 22:48	EPA 8082A		
PCB-1242	ND	0.038	0.13	ug/L	1	08/12/2014	08/12/2014 22:48	EPA 8082A		
PCB-1248	ND	0.020	0.13	ug/L	1	08/12/2014	08/12/2014 22:48	EPA 8082A		
PCB-1254	ND	0.0090	0.13	ug/L	1	08/12/2014	08/12/2014 22:48	EPA 8082A		
PCB-1260	ND	0.025	0.13	ug/L	1	08/12/2014	08/12/2014 22:48	EPA 8082A		
Total PCBs	ND	0.038	0.25	ug/L	1	08/12/2014	08/12/2014 22:48	EPA 8082A		
Surrogate: Decachlorobiphenyl		·	95.5 %	75.4-168		08/12/2014	08/12/2014 22:48	EPA 8082A		
Surrogate: Tetrachloro-meta-xylene			97.8 %	74.3-141		08/12/2014	08/12/2014 22:48	EPA 8082A		



Project: Madison Kipp - Madison, WI

126 N Jefferson St., Ste 400 Milwaukee WI, 53202

Surrogate: Tetrachloro-meta-xylene

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TB-01

Date Sampled 08/12/2014 00:00

A143304-07 (Water)

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
			E	CCS					
Polychlorinated Biphenyls by EPA Me	thod 8082					Prep	aration Batch: A	408031	
PCB-1016	ND	0.035	0.13	ug/L	1	08/12/2014	08/12/2014 23:13	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	08/12/2014	08/12/2014 23:13	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	08/12/2014	08/12/2014 23:13	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	08/12/2014	08/12/2014 23:13	EPA 8082A	
PCB-1248	ND	0.020	0.13	ug/L	1	08/12/2014	08/12/2014 23:13	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	08/12/2014	08/12/2014 23:13	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	08/12/2014	08/12/2014 23:13	EPA 8082A	
Total PCBs	ND	0.038	0.25	ug/L	1	08/12/2014	08/12/2014 23:13	EPA 8082A	
Surrogate: Decachlorobiphenyl			93.0 %	75.4-168		08/12/2014	08/12/2014 23:13	EPA 8082A	

74.3-141

08/12/2014

08/12/2014 23:13

EPA 8082A

98.1 %



126 N Jefferson St., Ste 400Project Number: W1001368Milwaukee WI, 53202Project Manager: Chris Kubacki

# Polychlorinated Biphenyls by EPA Method 8082 - Quality Control

Project: Madison Kipp - Madison, WI

#### **ECCS**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A408022 - EPA 3570										
Blank (A408022-BLK1)			Prep	oared: 08/12	2/2014 Ana	alyzed: 08/	12/2014 13:1	11		
PCB-1016	ND	0.20	mg/kg wet							
PCB-1221	ND	0.20	mg/kg wet							
PCB-1232	ND	0.20	mg/kg wet							
PCB-1242	ND	0.20	mg/kg wet							
PCB-1248	ND	0.20	mg/kg wet							
PCB-1254	ND	0.20	mg/kg wet							
PCB-1260	ND	0.20	mg/kg wet							
Total PCBs	ND	0.20	mg/kg wet							
Surrogate: Decachlorobiphenyl	0.294		mg/kg wet	0.3168		92.7	59.1-127			
Surrogate: Tetrachloro-meta-xylene	0.226		mg/kg wet	0.2400		94.0	77.4-119			
LCS (A408022-BS1)			Prep	oared: 08/12	2/2014 Ana	alyzed: 08/	12/2014 13:3	36		
PCB-1260	3.72	0.20	mg/kg wet	4.000		93.1	73.1-132			
Surrogate: Decachlorobiphenyl	0.304		mg/kg wet	0.3168		95.8	59.1-127			
Surrogate: Tetrachloro-meta-xylene	0.237		mg/kg wet	0.2400		98.8	77.4-119			
Matrix Spike (A408022-MS1)	Source: A	A143304-03	Prep	pared: 08/12	2/2014 Ana	alyzed: 08/	12/2014 19:0	)2		
PCB-1260	4.24	0.22	mg/kg dry	4.326	ND	97.9	62.1-148			
Surrogate: Decachlorobiphenyl	0.336		mg/kg dry	0.3426		98.0	59.1-127			
Surrogate: Tetrachloro-meta-xylene	0.261		mg/kg dry	0.2596		100	77.4-119			
Matrix Spike Dup (A408022-MSD1)	Source: A	A143304-03	Prep	oared: 08/12	2/2014 Ana	alyzed: 08/	12/2014 19:2	27		
PCB-1260	4.18	0.22	mg/kg dry	4.326	ND	96.6	62.1-148	1.37	20	
Surrogate: Decachlorobiphenyl	0.332		mg/kg dry	0.3426		96.8	59.1-127			
Surrogate: Tetrachloro-meta-xylene	0.271		mg/kg dry	0.2596		104	77.4-119			
Batch A408031 - EPA 3511										
Blank (A408031-BLK1)			Prep	pared: 08/12	2/2014 Ana	alvzed: 08/	12/2014 21:3	33		
PCB-1016	ND	0.13	ug/L			<u> </u>				
PCB-1221	ND	0.25	ug/L							
PCB-1232	ND	0.13	ug/L							
PCB-1242	ND	0.13	ug/L							
PCB-1248	ND	0.13	ug/L							
PCB-1254	ND	0.13	ug/L							
PCB-1260	ND	0.13	ug/L							
Total PCBs	ND	0.25	ug/L							
Surrogate: Decachlorobiphenyl	0.983		ug/L	0.9900		99.2	75.4-168			
Surrogate: Tetrachloro-meta-xylene	0.754		ug/L	0.7500		100	74.3-141			



Project: Madison Kipp - Madison, WI

126 N Jefferson St., Ste 400 Milwaukee WI, 53202 Project Number: W1001368 Project Manager: Chris Kubacki

#### Polychlorinated Biphenyls by EPA Method 8082 - Quality Control

#### **ECCS**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch A408031 - EPA 3511										
LCS (A408031-BS1)			Pre	epared: 08/12/2	2014 Ana	ılyzed: 08/1	12/2014 21:5	58		
PCB-1260	11.8	0.13	ug/L	12.50		94.6	70-130			
Surrogate: Decachlorobiphenyl	1.00		ug/L	0.9900		101	75.4-168			
Surrogate: Tetrachloro-meta-xylene	0.761		ug/L	0.7500		101	74.3-141			
LCS Dup (A408031-BSD1)			Pre	epared: 08/12/2	2014 Ana	lyzed: 08/1	12/2014 22:2	23		
PCB-1260	11.8	0.13	ug/L	12.50		94.7	70-130	0.190	20	
Surrogate: Decachlorobiphenyl	0.942		ug/L	0.9900		95.1	75.4-168			
Surrogate: Tetrachloro-meta-xylene	0.766		ug/L	0.7500		102	74.3-141			



Project: Madison Kipp - Madison, WI

126 N Jefferson St., Ste 400 Milwaukee WI, 53202 Project Number: W1001368 Project Manager: Chris Kubacki

#### **Classical Chemistry Parameters - Quality Control**

#### **ECCS**

		Limit of		Spike	Source		%REC		RPD	
Analyte	Result		Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch A408036 - % Solids

Duplicate (A408036-DUP1)	Source: A14330	<b>97-11</b> Prepared: 08/12	Prepared: 08/12/2014 Analyzed: 08/13/2014 09:00					
% Solids	89.0	0.00 % by Weight	88.2	0.854	20			





ARCADIS Project: Madison Kipp - Madison, WI

126 N Jefferson St., Ste 400 Project Number: W1001368
Milwaukee WI, 53202 Project Manager: Chris Kubacki

#### **Notes and Definitions**

J Analyte was detected but is below the reporting limit. The concentration is estimated.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. If the word 'dry' does not appear after the units, results are reported on an as-is basis.

RPD Relative Percent Difference

## **Environmental Chemistry** Consulting Services, Inc.

# **CHAIN OF CUSTODY**

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2525 Advance Road Madison, WI 53718

(priorie)					Lab Work Order #:						Mail Report To: Chris WSCUI				
608-221-4889 (fax)	)				A143304						Company:				
Project Number: W100 1368					Analyses Requested						Address:				
Project Name: Modison Wipp					Preservation Codes										
Project Location: Madison, WI					A						E-mail Address:				
Turn Around (circle one): Normal (Rush) 24 L	<u></u>										Invoice To:				
f Rush, Report Due Date:				ners	AN						Company:				
Sampled By (Print): Jay Rest				Total # of Containers	R PCS						Address:				
Sample Description	Colle Date	ection Time	Matrix	Total#	da						Comments	Lab ID	Lab Receipt Time		
PG-36	8/12/14	(13:00	S. Co	3	X						MS/MSD	01			
RG-37	Paragraphic	13:05	50	l	X							02			
PG1-38	*GAM/Cidycomegawww	13:10	SO	ì	X							03			
PG-39	Anna Arganism (Albanism)	13:15	D	L	X							04			
DUP-01	Andrew Constitution (Cons		D		X						Publicate	05			
EB-0(	Principal Control of C	13:30	W	V	X						Puplicate equipment blank	06			
TR-01	V		W	1	X							07			
Preservation Codes A=None B=HCL C=H <sub>2</sub> SO <sub>4</sub>	Relinquishe					<u>ا</u>	Date) 12/12/	114	Time: 14	:01	Received By:	Date:/	Time: (14) '8 テ		
D=HNO <sub>3</sub> E=EnCore F=Methanol G=NaOH O=Other (Indicate)	Relinquishe	ed By:				Ĉ	Date:		Time:		Received By:	Date:	Time:		
Matrix Codes A=Air S=Soil W=Water O=Other	Custody Se Shipped Via	eal: Presen				Not Inta		eal#			Receipt Temp:				
Download this form at www eccsmobilelah com	Tamphog Au		VANAIT	E DE	BO B 18	CORV	VEII	OW	LADO	DATO	Temp Blank Y N	=0	Doy 11/09		