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ENVIRONMENT

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

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

Date:
August 6, 2014

Contact:
Jennine Trask

Phone:
414.277.6203

Email:
Jennine.Trask@arcadis-us.com

Our ref:
WI001368.0017.00001

Dear Mr. Schmoller:

On behalf of Madison-Kipp Corporation (MKC), this letter provides a summary of the polychlorinated biphenyl-related rain garden excavation activities completed during April and May 2014 related to the Madison-Kipp site located at 201 Waubesa Street in Madison, Wisconsin (Figure 1). The rain garden is located on city of Madison property between the northern boundary of MKC property and the Capital City Bike Path as shown on Figure 1.The activities included soil excavation completed in accordance with the *Rain Garden Soil Removal Work Plan (*Work Plan), dated December 2013. The Wisconsin Department of Natural Resources (WDNR), in conjunction with the United States Environmental Protection Agency (U.S. EPA), provided approval of the Work Plan prior to initiation of the work. A Natural Resources 712.09 submittal certification is included in Attachment A.

The following presents a brief description of the approved work presented in the Work Plan:

- Excavation and disposal of soils within the rain garden containing polychlorinated biphenyl (PCBs) at concentrations above the WDNR's industrial direct contact residual contaminant level (RCL) of 0.744 milligrams per kilogram (mg/kg) to a depth of 4 feet below land surface (bls).

- Collection of confirmation soil samples approximately every 20 feet along the base and side walls of the excavation area.

- Backfill the excavated area with clean material based on specifications provided by the city of Madison.

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

Excavation and Confirmation Soil Sampling Activities

Excavation and backfill activities were performed on site between April 7 and May 23, 2014. Prior to beginning the excavation activities, utility marking arrangements were made through Digger's Hotline (the State of Wisconsin Public Utility clearance service), a private utility locator and discussions with the property owners and MKC. 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.

The dimensions of the excavation were heavily influenced by setback zones as dictated by nearby utilities. Originally, the excavation was split into three separate sections due to 10-foot setback zones provided by Madison Gas and Electric (MG&E) around overhead utility poles and the associated guide wires that were situated directly within the planned excavation area. Three rounds of excavation activities were performed at the rain garden:

- Excavation #1 – April 7 through April 9, 2014
- Excavation #2 – May 6 through May 9, 2014
- Excavation #3 – May 22 through May 23, 2014

Excavation #1

Excavation activities began on April 7, 2014 by R.W. Collins (Collins). All excavated soils were stockpiled within areas of the rain garden that were to be excavated later. Soil transportation and disposal was initiated on April 8, 2014 and was completed on April 9, 2014. A total of approximately 224 tons of soil were excavated and disposed of at Advanced Disposal's Glacier Ridge Landfill in Horicon, Wisconsin. Following the completion of soil removal, the excavations were left open pending confirmation sample results.

Confirmation soil samples were collected at approximately every 20 feet along the side walls and base of the excavation areas. A total of 30 side wall samples and 5 base samples 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 using appropriate chain-of-custody procedures.

PCBs were not detected above the WDNR's industrial direct contact RCL in any of the base samples collected. Ten of the twenty side wall confirmation samples collected contained PCB concentrations above the industrial direct contact RCL of 0.744 mg/kg. One side wall confirmation sample (RG-18) contained PCBs above the Toxic Substances Control Act (TSCA) disposal limit of 50 mg/kg. This data was submitted to WDNR with the recommendation to complete additional excavation and confirmation sampling in areas where the confirmation samples exceeded industrial direct contact RCL. A summary of the confirmation soil sample analytical results for the rain garden is presented in Table 1. Copies of laboratory analytical reports are included as Attachment B.

Excavation #2

Following receipt of WDNR approval, a second round of excavation activities were completed in the areas with confirmation samples containing PCB criteria exceedances. The second round excavation areas are shown on Figure 1.

The second round of excavation activities were completed on May 6 through 8, 2014. The excavation was extended to the extent practical as dictated by utility clearance and setback zone restrictions. These excavation activities required encroachment on the setbacks initially established by MG&E. MG&E provided modified setbacks and provided oversight during the soil excavation to ensure the integrity of the utilities in the area.

The soils present in the area of confirmation Soil Sample RG-18 were classified as TSCA hazardous soil, loaded into a roll off box, and disposed of at Environmental Quality's (EQ's) Wayne Disposal Landfill located in Belleville, Michigan. A total of approximately 14.5 tons of soil were excavated and disposed of at EQ's Wayne Disposal Landfill during the second round of excavation. The non-hazardous excavated soils were temporarily stockpiled on and covered with plastic sheeting, then subsequently loaded into trucks and transported to Advanced Disposal's Glacier Ridge Landfill in Horicon, Wisconsin. A total of approximately 119 tons of non-hazardous soils were excavated and disposed of at Advanced Disposal's Glacier Ridge Landfill during the second round of excavation.

Additional confirmation soil samples were collected in line with the original samples that contained PCBs at concentrations above the criteria. A total of 9 side wall

confirmation samples were collected during the second round of excavation for laboratory analysis of PCBs by U.S. EPA Method 8082. Six of the 9 confirmation soil samples contained PCB concentrations above the industrial direct contact RCL. One sample (RG-25) contained PCBs above the TSCA disposal limit.

Due to utility restrictions, only two of the six areas with exceedances could be extended through additional excavation. This data was submitted to WDNR with the recommendation to complete additional excavation and confirmation sampling at two of the six areas where the confirmation samples exceeded industrial direct contact RCL.

Excavation #3

Following WDNR approval, a third round of excavation activities was performed on May 22 and 23, 2014. Soils were excavated from two areas as shown on Figure 1. The excavation areas extended to the edge of the rain garden parcel to the fence line bordering the MKC parking lot to the south and west.

The soils present in the area of confirmation Soil Sample RG-25 were loaded into a roll off box and disposed of as TSCA hazardous soil at EQ's Wayne Disposal Landfill (approximately 15 tons). The soils present in the area of confirmation soil sample RG-30 were temporarily stockpiled on and covered with plastic sheeting, then subsequently disposed of as non-hazardous soil at Advanced Disposal's Glacier Ridge Landfill (approximately 21 tons).

Two confirmation samples were collected following the third round of excavation and submitted for laboratory analysis of PCBs by U.S. EPA Method 8082. Both samples (RG-34 and RG-35) contained PCB concentrations above the WDNR's industrial direct contact RCLs. Additionally, Soil Sample RG-35 contained PCB concentrations above the TSCA disposal limit.

This data was submitted to WDNR on June 5, 2014.

Backfill

Backfill activities were performed by Collins following receipt of the second and third rounds of soil confirmation sample analytical results and WDNR's approval to proceed with backfill activities. As specified by the city of Madison, the excavation areas were backfilled with sand to a depth of 1 foot bls followed by 1 foot of Purple Cow topsoil mix. The excavation was filled and graded by a skid loader and

excavator as close to pre-work conditions as possible. City of Madison contractors will re-establish the vegetation at the rain garden parcel.

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. Three MS/MSD samples were 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. Field duplicate samples were collected at a minimum frequency of one per 20 investigative samples to evaluate the precision of the field sample collection procedures. A total of 3 duplicate samples were taken in the field and 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 with the exception of one duplicate sample (DUP-2). The results of Duplicate Sample DUP-2 and parent Sample RG-25 were verified by the laboratory.

Conclusions

Soil excavation and backfill activities were completed at the rain garden in accordance with the WDNR-approved Work Plan. Soils at the rain garden have been removed to the extent practicable to either below the WDNR's industrial direct contact RCL, or safely excavated to MG&E utility buffers. Areas within the rain garden parcel containing confirmation soil samples with concentrations of PCBs above the WDNR's industrial direct contact RCL are presented on Table 1 and shown on Figure 1. Copies of laboratory analytical reports are included as Attachment B. The areas with exceedances at the rain garden parcel will be documented on the WDNR's geographic information system soil registry at case closure.

The soils left in place beneath the MKC parking lot at the location of confirmation Soil Sample RG-35 will be evaluated and addressed separately from the rain garden parcel with WDNR, as this location is not within the rain garden.

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

Copies:
David Crass – Michael Best
Linda Hanefeld - WDNR
Tony Koblinski – Madison-Kipp Corporation
Steve Tinker – Wisconsin Department of Justice (electronic)
Ken Zolnierczyk – U.S. EPA (electronic)

Attachments:
Table 1 – Excavation Confirmation Soil Sample Analytical Results
Figure 1 – Rain Garden Excavation Area and Confirmation Soil Sample Locations
Attachment A – Submittal Certification
Attachment B – Laboratory Reports

Table 1. Summary of Rain Garden Confirmation Soil Sample Analytical Results, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin.

Sample Location	**Industrial**	**TSCA**	**RG-1**	**RG-2**	**RG-3**	**RG-4**	
Sample ID	**Direct**	**Disposal**	**RG-1 (4/19/2014)**	**RG-2 (4/19/2014)**	**RG-3 (4/19/2014)**	**RG-4 (4/19/2014)**	**DUP-01 (4/19/2014)**
Sample Date	**Contact RCL**	**Limit**	**4/9/2014**	**4/9/2014**	**4/9/2014**	**4/9/2014**	**4/9/2014**
PCBs							
Aroclor 1016	21.2	NE	<0.82	<0.0070	<0.041	<0.0073	<0.0073
Aroclor 1221	0.744	NE	<1	<0.0087	<0.051	<0.0090	<0.0091
Aroclor 1232	0.744	NE	<1	<0.0086	<0.051	<0.0089	<0.0090
Aroclor 1242	0.744	NE	<0.76	<0.0065	<0.038	<0.0067	<0.0068
Aroclor 1248	0.744	NE	<0.91	<0.0078	<0.046	<0.0081	<0.0081
Aroclor 1254	0.744	NE	**12**	0.019 J	0.35	0.08	0.065
Aroclor 1260	0.744	NE	<1.1	<0.0097	<0.057	<0.01	<0.01
Total Detected PCBs	NE	50	12	0.019	0.35	0.08	0.065

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.

J Constituent concentration is an approximate value.

NE Criteria not established.

PCBs Polychlorinated biphenyls.

RCL Residual contaminant level.

TSCA Toxic Substance Control Act.

Table 1. Summary of Rain Garden Confirmation Soil Sample Analytical Results, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin.

Sample Location	**RG-5**	**RG-6**	**RG-7**	**RG-8**	**RG-9**	**RG-10**	**RG-11**
Sample ID	**RG-5 (4/19/2014)**	**RG-6 (4/19/2014)**	**RG-7 (4/19/2014)**	**RG-8 (4/19/2014)**	**RG-9 (4/19/2014)**	**RG-10 (4/19/2014)**	**RG-11 (4/19/2014)**
Sample Date	**4/9/2014**	**4/9/2014**	**4/9/2014**	**4/9/2014**	**4/9/2014**	**4/9/2014**	**4/9/2014**
PCBs							
Aroclor 1016	<0.14	<0.0075	<0.0076	<1.6	<0.0074	<0.0071	<0.15
Aroclor 1221	<0.18	<0.0094	<0.0094	<2	<0.0092	<0.0088	<0.19
Aroclor 1232	<0.18	<0.0093	<0.0093	<2	<0.0091	<0.0087	<0.18
Aroclor 1242	<0.13	<0.0070	<0.0070	<1.5	<0.0069	<0.0066	<0.14
Aroclor 1248	<0.16	<0.0084	<0.0084	<1.8	<0.0082	<0.0079	<0.17
Aroclor 1254	**2.2**	0.1	0.048	**31**	0.011 J	<0.0043	**0.91**
Aroclor 1260	<0.2	<0.01	<0.011	<2.3	<0.01	<0.0098	<0.21
Total Detected PCBs	2.2	0.1	0.048	31	0.011	0	0.91

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.

J Constituent concentration is an approximate value.

NE Criteria not established.

PCBs Polychlorinated biphenyls.

RCL Residual contaminant level.

TSCA Toxic Substance Control Act.

Table 1. Summary of Rain Garden Confirmation Soil Sample Analytical Results, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin.

Sample Location	**RG-12**	**RG-13**	**RG-14**	**RG-15**	**RG-16**	**RG-17**
Sample ID	**RG-12 (4/19/2014)**	**RG-13 (4/19/2014)**	**RG-14 (4/19/2014)**	**RG-15 (4/19/2014)**	**RG-16 (4/19/2014)**	**RG-17 (4/19/2014)**
Sample Date	**4/9/2014**	**4/9/2014**	**4/9/2014**	**4/9/2014**	**4/9/2014**	**4/9/2014**
PCBs						
Aroclor 1016	<0.0077	<0.14	<0.0068	<0.0074	<0.19	<0.035
Aroclor 1221	<0.0095	<0.17	<0.0085	<0.0092	<0.24	<0.044
Aroclor 1232	<0.0095	<0.17	<0.0084	<0.0091	<0.24	<0.044
Aroclor 1242	<0.0071	<0.13	<0.0063	<0.0069	<0.18	<0.033
Aroclor 1248	<0.0085	<0.15	<0.0076	<0.0082	<0.21	<0.04
Aroclor 1254	0.11	**5.3**	<0.0042	0.016 J	**11**	<0.022
Aroclor 1260	<0.011	<0.19	<0.0095	<0.01	<0.26	<0.049
Total Detected PCBs	0.11	5.3	0	0.016	11	0

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.

J Constituent concentration is an approximate value.

NE Criteria not established.

PCBs Polychlorinated biphenyls.

RCL Residual contaminant level.

TSCA Toxic Substance Control Act.

Table 1. Summary of Rain Garden Confirmation Soil Sample Analytical Results, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin.

Sample Location	**RG-18**	**RG-19**	**RG-20**	**RG-21**	**RG-22**	**RG-23**
Sample ID	**RG-18 (4/19/2014)**	**RG-19 (4/19/2014)**	**RG-20 (4/19/2014)**	**RG-21 (4/19/2014)**	**RG-22 (4/19/2014)**	**RG-23 (4/19/2014)**
Sample Date	**4/9/2014**	**4/9/2014**	**4/9/2014**	**4/9/2014**	**4/9/2014**	**4/9/2014**
PCBs						
Aroclor 1016	<4.2	<0.16	<0.17	<0.0082	<0.0074	<0.83
Aroclor 1221	<5.2	<0.2	<0.22	<0.01	<0.0092	<1
Aroclor 1232	<5.2	<0.19	<0.21	<0.01	<0.0092	<1
Aroclor 1242	<3.9	<0.15	<0.16	<0.0076	<0.0069	<0.77
Aroclor 1248	<4.7	<0.18	<0.19	<0.0092	<0.0083	<0.92
Aroclor 1254	**85**	**4.3**	**0.88**	0.035	0.13	**20**
Aroclor 1260	<5.8	<0.22	<0.24	<0.011	<0.01	<1.2
Total Detected PCBs	***85***	4.3	0.88	0.035	0.13	20

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.

J Constituent concentration is an approximate value.

NE Criteria not established.

PCBs Polychlorinated biphenyls.

RCL Residual contaminant level.

TSCA Toxic Substance Control Act.

Table 1. Summary of Rain Garden Confirmation Soil Sample Analytical Results, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin.

Sample Location	**RG-24**	**RG-25**		**RG-26**	**RG-27**	**RG-28**	**RG-29**
Sample ID	**RG-24 (4/19/2014)**	**RG-25 (5/6/2014)**	**DUP-02 (5/6/2014)**	**RG-26 (5/6/2014)**	**RG-27 (5/6/2014)**	**RG-28 (5/6/2014)**	**RG-29 (5/6/2014)**
Sample Date	**4/9/2014**	**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/6/2014**
PCBs							
Aroclor 1016	<0.0075	<17	<0.75	<0.038	<0.0076	<0.04	<0.0074
Aroclor 1221	<0.0093	<21	<0.93	<0.047	<0.0095	<0.05	<0.0092
Aroclor 1232	<0.0092	<20	<0.92	<0.046	<0.0094	<0.049	<0.0091
Aroclor 1242	<0.0070	<15	<0.69	<0.035	<0.0071	<0.037	<0.0069
Aroclor 1248	<0.0083	**420**	**27**	0.65	0.18	0.56	0.11
Aroclor 1254	0.057	**130**	**16**	**0.89**	0.38	**0.78**	0.11
Aroclor 1260	<0.01	<23	<1	<0.052	<0.011	<0.055	<0.01
Total Detected PCBs	0.057	***550***	43	1.54	0.56	1.34	0.22

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.

J Constituent concentration is an approximate value.

NE Criteria not established.

PCBs Polychlorinated biphenyls.

RCL Residual contaminant level.

TSCA Toxic Substance Control Act.

Table 1. Summary of Rain Garden Confirmation Soil Sample Analytical Results, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin.

Sample Location	**RG-30**	**RG-31**	**RG-32**	**RG-33**	**RG-34**		**RG-35**
Sample ID	**RG-30 (5/6/2014)**	**RG-31 (5/6/2014)**	**RG-32 (5/6/2014)**	**RG-33 (5/6/2014)**	**RG 34 (5/22/2014)**	**DUP (5/22/2014)**	**RG 35 (5/22/2014)**
Sample Date	**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/6/2014**	**5/22/2014**	**5/22/2014**	**5/22/2014**
PCBs							
Aroclor 1016	<0.085	<0.041	<0.41	<0.0068	<0.037	<0.036	<21
Aroclor 1221	<0.11	<0.052	<0.51	<0.0085	<0.046	<0.045	<27
Aroclor 1232	<0.1	<0.051	<0.5	<0.0084	<0.046	<0.044	<26
Aroclor 1242	<0.079	<0.039	<0.38	<0.0063	<0.035	<0.033	<20
Aroclor 1248	**1.7**	**0.82**	<0.45	<0.0076	**0.85**	0.6	**600**
Aroclor 1254	**1**	0.62	**11**	0.016 J	0.44	0.46	**420**
Aroclor 1260	<0.12	<0.058	<0.57	<0.0095	<0.052	<0.05	<30
Total Detected PCBs	2.7	1.44	11	0.016	1.29	1.06	***1,020***

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.

J Constituent concentration is an approximate value.

NE Criteria not established.

PCBs Polychlorinated biphenyls.

RCL Residual contaminant level.

TSCA Toxic Substance Control Act.

LEGEND

CONFIRMATION SOIL SAMPLE
- CONCENTRATION >0.744 MG/KG
- CONCENTRATION <0.744 MG/KG
- SOIL BORING LOCATION
- MONITORING WELL
- UTILITY POLE

- PARCELS
- BUILDING FOOTPRINTS
- WATER MAIN
- ABANDONED SANITARY MAIN
- SANITARY LATERALS
- SANITARY MAINS
- ONSITE STORM WATER DISCHARGE
- ELECTRIC
- GROUND TENSION WIRE
- GAS
- SVE TRENCH
- COMMUNICATIONS
- STORM WATER
- FENCE
- EXCAVATION 1
- EXCAVATION 2
- EXCAVATION 3
- UTILITY BUFFER
- PERIMETER OF RAIN GARDEN

0 30 60
SCALE IN FEET

ND = NON DETECT
ALL LOCATIONS ARE APPROXIMATE

MADISON-KIPP CORPORATION
201 WAUBESA STREET
MADISON, WISCONSIN

RAIN GARDEN EXCAVATION AREA AND CONFIRMATION SOIL SAMPLE LOCATIONS

ARCADIS

FIGURE 1

CITY: MKE DIV/GROUP: IM DB: MG LD: CK MADISON-KIPP
Z:\GISPROJECTS_ENV\MadisonKipp\ArcMap\2014-07\RainGarden_Excavation_20140729.mxd

ARCADIS

Attachment A

Submittal Certification

ARCADIS

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 Rain Garden Soil Removal Activities
Madison-Kipp Corporation
201 Waubesa Street
Madison, Wisconsin

I, Jennine L. Trask, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that 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.

WISCONSIN
JENNINE L. TRASK
#34959
WEST ALLIS, WI.
PROFESSIONAL ENGINEER

Principal Engineer #34959
Signature, title and P.E. number

I, Christopher Kubacki, 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.

Engineer
Signature and title

8/6/14
Date

ARCADIS

Attachment B

Laboratory Reports

TestAmerica

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: 500-74873-1
Client Project/Site: MadisonKipp - WI001368.17.1

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

Attn: Ms. Jennine Trask

Therese Hargraves

Authorized for release by:
4/16/2014 4:53:19 PM
Therese Hargraves, Project Manager I
therese.hargraves@testamericainc.com

Designee for

Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

LINKS

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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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Job ID: 500-74873-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-74873-1

Comments
No additional comments.

Receipt
The samples were received on 4/10/2014 10:54 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3º C.

Except:

Received 2 jars with the ID of RG-24, didn't receive RG-23. The only difference between the two jars is one is in black ink and the other in blue ink.

GC Semi VOA
Method(s) 8082: The following sample were diluted to bring the concentration of target analytes within the calibration range: RG-1 (500-74873-1), RG-11 (500-74873-11), RG-13 (500-74873-13), RG-16 (500-74873-16), RG-18 (500-74873-18), RG-19 (500-74873-19), RG-20 (500-74873-20), RG-23 (500-74873-24), RG-3 (500-74873-3), RG-5 (500-74873-5), RG-8 (500-74873-8). Elevated reporting limits (RLs) are provided.

Method(s) 8082: The following sample(s) was diluted due to the abundance of non-target analytes: RG-17 (500-74873-17). Elevated reporting limits (RLs) are provided.

Method(s) 8082: The following sample(s) required a dilution due to the nature of the sample matrix: RG-1 (500-74873-1), RG-11 (500-74873-11), RG-13 (500-74873-13), RG-16 (500-74873-16), RG-18 (500-74873-18), RG-19 (500-74873-19), RG-20 (500-74873-20), RG-23 (500-74873-24), RG-5 (500-74873-5), RG-8 (500-74873-8). Because of these dilutions, the surrogate spike concentrations in the samples were reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8082: The following sample(s) required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: RG-14 (500-74873-14). The reagent lot number used was: 18120.

No other analytical or quality issues were noted.

Metals
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.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-1 — Lab Sample ID: 500-74873-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	12000		2300	500	ug/Kg	100	☼	8082	Total/NA

Client Sample ID: RG-2 — Lab Sample ID: 500-74873-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	19	J	20	4.3	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: RG-3 — Lab Sample ID: 500-74873-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	350		120	25	ug/Kg	5	☼	8082	Total/NA

Client Sample ID: RG-4 — Lab Sample ID: 500-74873-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	80		21	4.4	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: RG-5 — Lab Sample ID: 500-74873-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	2200		410	88	ug/Kg	20	☼	8082	Total/NA

Client Sample ID: RG-6 — Lab Sample ID: 500-74873-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	100		21	4.6	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: RG-7 — Lab Sample ID: 500-74873-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	48		21	4.6	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: RG-8 — Lab Sample ID: 500-74873-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	31000		4600	1000	ug/Kg	200	☼	8082	Total/NA

Client Sample ID: RG-9 — Lab Sample ID: 500-74873-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	11	J	21	4.5	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: RG-10 — Lab Sample ID: 500-74873-10

No Detections.

Client Sample ID: RG-11 — Lab Sample ID: 500-74873-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	910		420	91	ug/Kg	20	☼	8082	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-12 — Lab Sample ID: 500-74873-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	110		22	4.7	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: RG-13 — Lab Sample ID: 500-74873-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	5300		390	85	ug/Kg	20	☼	8082	Total/NA

Client Sample ID: RG-14 — Lab Sample ID: 500-74873-14

No Detections.

Client Sample ID: RG-15 — Lab Sample ID: 500-74873-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	16	J	21	4.5	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: RG-16 — Lab Sample ID: 500-74873-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	11000		540	120	ug/Kg	20	☼	8082	Total/NA

Client Sample ID: RG-17 — Lab Sample ID: 500-74873-17

No Detections.

Client Sample ID: RG-18 — Lab Sample ID: 500-74873-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	85000		12000	2600	ug/Kg	500	☼	8082	Total/NA

Client Sample ID: RG-19 — Lab Sample ID: 500-74873-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	4300		450	96	ug/Kg	20	☼	8082	Total/NA

Client Sample ID: RG-20 — Lab Sample ID: 500-74873-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	880		490	110	ug/Kg	20	☼	8082	Total/NA

Client Sample ID: RG-21 — Lab Sample ID: 500-74873-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	35		23	5.0	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: RG-22 — Lab Sample ID: 500-74873-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	130		21	4.5	ug/Kg	1	☼	8082	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-24 — Lab Sample ID: 500-74873-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	57		21	4.6	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: RG-23 — Lab Sample ID: 500-74873-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	20000		2300	510	ug/Kg	100	☼	8082	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 500-74873-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	65		21	4.5	ug/Kg	1	☼	8082	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

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

Protocol References:

EPA = US Environmental Protection Agency

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-74873-1	RG-1	Solid	04/09/14 11:35	04/10/14 10:54
500-74873-2	RG-2	Solid	04/09/14 11:36	04/10/14 10:54
500-74873-3	RG-3	Solid	04/09/14 11:37	04/10/14 10:54
500-74873-4	RG-4	Solid	04/09/14 11:38	04/10/14 10:54
500-74873-5	RG-5	Solid	04/09/14 11:39	04/10/14 10:54
500-74873-6	RG-6	Solid	04/09/14 11:40	04/10/14 10:54
500-74873-7	RG-7	Solid	04/09/14 12:40	04/10/14 10:54
500-74873-8	RG-8	Solid	04/09/14 12:41	04/10/14 10:54
500-74873-9	RG-9	Solid	04/09/14 12:42	04/10/14 10:54
500-74873-10	RG-10	Solid	04/09/14 12:43	04/10/14 10:54
500-74873-11	RG-11	Solid	04/09/14 12:44	04/10/14 10:54
500-74873-12	RG-12	Solid	04/09/14 12:45	04/10/14 10:54
500-74873-13	RG-13	Solid	04/09/14 12:46	04/10/14 10:54
500-74873-14	RG-14	Solid	04/09/14 12:47	04/10/14 10:54
500-74873-15	RG-15	Solid	04/09/14 12:48	04/10/14 10:54
500-74873-16	RG-16	Solid	04/09/14 12:49	04/10/14 10:54
500-74873-17	RG-17	Solid	04/09/14 12:50	04/10/14 10:54
500-74873-18	RG-18	Solid	04/09/14 12:51	04/10/14 10:54
500-74873-19	RG-19	Solid	04/09/14 12:52	04/10/14 10:54
500-74873-20	RG-20	Solid	04/09/14 13:05	04/10/14 10:54
500-74873-21	RG-21	Solid	04/09/14 13:06	04/10/14 10:54
500-74873-22	RG-22	Solid	04/09/14 13:07	04/10/14 10:54
500-74873-23	RG-24	Solid	04/09/14 13:09	04/10/14 10:54
500-74873-24	RG-23	Solid	04/09/14 13:09	04/10/14 10:54
500-74873-25	DUP-01	Solid	04/09/14 00:00	04/10/14 10:54

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-1

Lab Sample ID: 500-74873-1
Date Collected: 04/09/14 11:35
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 70.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<820		2300	820	ug/Kg	☼	04/11/14 07:04	04/15/14 15:28	100
PCB-1221	<1000		2300	1000	ug/Kg	☼	04/11/14 07:04	04/15/14 15:28	100
PCB-1232	<1000		2300	1000	ug/Kg	☼	04/11/14 07:04	04/15/14 15:28	100
PCB-1242	<760		2300	760	ug/Kg	☼	04/11/14 07:04	04/15/14 15:28	100
PCB-1248	<910		2300	910	ug/Kg	☼	04/11/14 07:04	04/15/14 15:28	100
PCB-1254	**12000**		2300	500	ug/Kg	☼	04/11/14 07:04	04/15/14 15:28	100
PCB-1260	<1100		2300	1100	ug/Kg	☼	04/11/14 07:04	04/15/14 15:28	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*04/11/14 07:04*	*04/15/14 15:28*	*100*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*04/11/14 07:04*	*04/15/14 15:28*	*100*

Client Sample ID: RG-2

Lab Sample ID: 500-74873-2
Date Collected: 04/09/14 11:36
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 81.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.0		20	7.0	ug/Kg	☼	04/11/14 07:04	04/15/14 16:09	1
PCB-1221	<8.7		20	8.7	ug/Kg	☼	04/11/14 07:04	04/15/14 16:09	1
PCB-1232	<8.6		20	8.6	ug/Kg	☼	04/11/14 07:04	04/15/14 16:09	1
PCB-1242	<6.5		20	6.5	ug/Kg	☼	04/11/14 07:04	04/15/14 16:09	1
PCB-1248	<7.8		20	7.8	ug/Kg	☼	04/11/14 07:04	04/15/14 16:09	1
PCB-1254	**19**	**J**	20	4.3	ug/Kg	☼	04/11/14 07:04	04/15/14 16:09	1
PCB-1260	<9.7		20	9.7	ug/Kg	☼	04/11/14 07:04	04/15/14 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*50 - 116*	*04/11/14 07:04*	*04/15/14 16:09*	*1*
DCB Decachlorobiphenyl	*110*		*48 - 142*	*04/11/14 07:04*	*04/15/14 16:09*	*1*

Client Sample ID: RG-3

Lab Sample ID: 500-74873-3
Date Collected: 04/09/14 11:37
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 70.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<41		120	41	ug/Kg	☼	04/11/14 07:04	04/15/14 16:22	5
PCB-1221	<51		120	51	ug/Kg	☼	04/11/14 07:04	04/15/14 16:22	5
PCB-1232	<51		120	51	ug/Kg	☼	04/11/14 07:04	04/15/14 16:22	5
PCB-1242	<38		120	38	ug/Kg	☼	04/11/14 07:04	04/15/14 16:22	5
PCB-1248	<46		120	46	ug/Kg	☼	04/11/14 07:04	04/15/14 16:22	5
PCB-1254	**350**		120	25	ug/Kg	☼	04/11/14 07:04	04/15/14 16:22	5
PCB-1260	<57		120	57	ug/Kg	☼	04/11/14 07:04	04/15/14 16:22	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*111*		*50 - 116*	*04/11/14 07:04*	*04/15/14 16:22*	*5*
DCB Decachlorobiphenyl	*135*		*48 - 142*	*04/11/14 07:04*	*04/15/14 16:22*	*5*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-4

Lab Sample ID: 500-74873-4
Date Collected: 04/09/14 11:38
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 78.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.3		21	7.3	ug/Kg	☼	04/11/14 07:04	04/15/14 16:36	1
PCB-1221	<9.0		21	9.0	ug/Kg	☼	04/11/14 07:04	04/15/14 16:36	1
PCB-1232	<8.9		21	8.9	ug/Kg	☼	04/11/14 07:04	04/15/14 16:36	1
PCB-1242	<6.7		21	6.7	ug/Kg	☼	04/11/14 07:04	04/15/14 16:36	1
PCB-1248	<8.1		21	8.1	ug/Kg	☼	04/11/14 07:04	04/15/14 16:36	1
PCB-1254	**80**		21	4.4	ug/Kg	☼	04/11/14 07:04	04/15/14 16:36	1
PCB-1260	<10		21	10	ug/Kg	☼	04/11/14 07:04	04/15/14 16:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*50 - 116*	*04/11/14 07:04*	*04/15/14 16:36*	*1*
DCB Decachlorobiphenyl	*106*		*48 - 142*	*04/11/14 07:04*	*04/15/14 16:36*	*1*

Client Sample ID: RG-5

Lab Sample ID: 500-74873-5
Date Collected: 04/09/14 11:39
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 78.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<140		410	140	ug/Kg	☼	04/11/14 07:04	04/15/14 11:22	20
PCB-1221	<180		410	180	ug/Kg	☼	04/11/14 07:04	04/15/14 11:22	20
PCB-1232	<180		410	180	ug/Kg	☼	04/11/14 07:04	04/15/14 11:22	20
PCB-1242	<130		410	130	ug/Kg	☼	04/11/14 07:04	04/15/14 11:22	20
PCB-1248	<160		410	160	ug/Kg	☼	04/11/14 07:04	04/15/14 11:22	20
PCB-1254	**2200**		410	88	ug/Kg	☼	04/11/14 07:04	04/15/14 11:22	20
PCB-1260	<200		410	200	ug/Kg	☼	04/11/14 07:04	04/15/14 11:22	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*04/11/14 07:04*	*04/15/14 11:22*	*20*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*04/11/14 07:04*	*04/15/14 11:22*	*20*

Client Sample ID: RG-6

Lab Sample ID: 500-74873-6
Date Collected: 04/09/14 11:40
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 76.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.5		21	7.5	ug/Kg	☼	04/11/14 07:04	04/15/14 16:50	1
PCB-1221	<9.4		21	9.4	ug/Kg	☼	04/11/14 07:04	04/15/14 16:50	1
PCB-1232	<9.3		21	9.3	ug/Kg	☼	04/11/14 07:04	04/15/14 16:50	1
PCB-1242	<7.0		21	7.0	ug/Kg	☼	04/11/14 07:04	04/15/14 16:50	1
PCB-1248	<8.4		21	8.4	ug/Kg	☼	04/11/14 07:04	04/15/14 16:50	1
PCB-1254	**100**		21	4.6	ug/Kg	☼	04/11/14 07:04	04/15/14 16:50	1
PCB-1260	<10		21	10	ug/Kg	☼	04/11/14 07:04	04/15/14 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*89*		*50 - 116*	*04/11/14 07:04*	*04/15/14 16:50*	*1*
DCB Decachlorobiphenyl	*109*		*48 - 142*	*04/11/14 07:04*	*04/15/14 16:50*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-7

Lab Sample ID: 500-74873-7
Date Collected: 04/09/14 12:40
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 76.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.6		21	7.6	ug/Kg	☼	04/11/14 07:04	04/15/14 17:03	1
PCB-1221	<9.4		21	9.4	ug/Kg	☼	04/11/14 07:04	04/15/14 17:03	1
PCB-1232	<9.3		21	9.3	ug/Kg	☼	04/11/14 07:04	04/15/14 17:03	1
PCB-1242	<7.0		21	7.0	ug/Kg	☼	04/11/14 07:04	04/15/14 17:03	1
PCB-1248	<8.4		21	8.4	ug/Kg	☼	04/11/14 07:04	04/15/14 17:03	1
PCB-1254	**48**		21	4.6	ug/Kg	☼	04/11/14 07:04	04/15/14 17:03	1
PCB-1260	<11		21	11	ug/Kg	☼	04/11/14 07:04	04/15/14 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*103*		*50 - 116*	*04/11/14 07:04*	*04/15/14 17:03*	*1*
DCB Decachlorobiphenyl	*97*		*48 - 142*	*04/11/14 07:04*	*04/15/14 17:03*	*1*

Client Sample ID: RG-8

Lab Sample ID: 500-74873-8
Date Collected: 04/09/14 12:41
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 69.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1600		4600	1600	ug/Kg	☼	04/11/14 07:04	04/15/14 17:17	200
PCB-1221	<2000		4600	2000	ug/Kg	☼	04/11/14 07:04	04/15/14 17:17	200
PCB-1232	<2000		4600	2000	ug/Kg	☼	04/11/14 07:04	04/15/14 17:17	200
PCB-1242	<1500		4600	1500	ug/Kg	☼	04/11/14 07:04	04/15/14 17:17	200
PCB-1248	<1800		4600	1800	ug/Kg	☼	04/11/14 07:04	04/15/14 17:17	200
PCB-1254	**31000**		4600	1000	ug/Kg	☼	04/11/14 07:04	04/15/14 17:17	200
PCB-1260	<2300		4600	2300	ug/Kg	☼	04/11/14 07:04	04/15/14 17:17	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*04/11/14 07:04*	*04/15/14 17:17*	*200*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*04/11/14 07:04*	*04/15/14 17:17*	*200*

Client Sample ID: RG-9

Lab Sample ID: 500-74873-9
Date Collected: 04/09/14 12:42
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 76.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.4		21	7.4	ug/Kg	☼	04/11/14 07:04	04/15/14 17:31	1
PCB-1221	<9.2		21	9.2	ug/Kg	☼	04/11/14 07:04	04/15/14 17:31	1
PCB-1232	<9.1		21	9.1	ug/Kg	☼	04/11/14 07:04	04/15/14 17:31	1
PCB-1242	<6.9		21	6.9	ug/Kg	☼	04/11/14 07:04	04/15/14 17:31	1
PCB-1248	<8.2		21	8.2	ug/Kg	☼	04/11/14 07:04	04/15/14 17:31	1
PCB-1254	**11**	**J**	21	4.5	ug/Kg	☼	04/11/14 07:04	04/15/14 17:31	1
PCB-1260	<10		21	10	ug/Kg	☼	04/11/14 07:04	04/15/14 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*50 - 116*	*04/11/14 07:04*	*04/15/14 17:31*	*1*
DCB Decachlorobiphenyl	*100*		*48 - 142*	*04/11/14 07:04*	*04/15/14 17:31*	*1*

Client Sample ID: RG-10

Lab Sample ID: 500-74873-10
Date Collected: 04/09/14 12:43
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 81.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.1		20	7.1	ug/Kg	☼	04/11/14 07:04	04/15/14 17:44	1
PCB-1221	<8.8		20	8.8	ug/Kg	☼	04/11/14 07:04	04/15/14 17:44	1
PCB-1232	<8.7		20	8.7	ug/Kg	☼	04/11/14 07:04	04/15/14 17:44	1
PCB-1242	<6.6		20	6.6	ug/Kg	☼	04/11/14 07:04	04/15/14 17:44	1
PCB-1248	<7.9		20	7.9	ug/Kg	☼	04/11/14 07:04	04/15/14 17:44	1
PCB-1254	<4.3		20	4.3	ug/Kg	☼	04/11/14 07:04	04/15/14 17:44	1
PCB-1260	<9.8		20	9.8	ug/Kg	☼	04/11/14 07:04	04/15/14 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*50 - 116*	*04/11/14 07:04*	*04/15/14 17:44*	*1*
DCB Decachlorobiphenyl	*122*		*48 - 142*	*04/11/14 07:04*	*04/15/14 17:44*	*1*

Client Sample ID: RG-11

Lab Sample ID: 500-74873-11
Date Collected: 04/09/14 12:44
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 77.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<150		420	150	ug/Kg	☼	04/11/14 07:04	04/15/14 12:57	20
PCB-1221	<190		420	190	ug/Kg	☼	04/11/14 07:04	04/15/14 12:57	20
PCB-1232	<180		420	180	ug/Kg	☼	04/11/14 07:04	04/15/14 12:57	20
PCB-1242	<140		420	140	ug/Kg	☼	04/11/14 07:04	04/15/14 12:57	20
PCB-1248	<170		420	170	ug/Kg	☼	04/11/14 07:04	04/15/14 12:57	20
PCB-1254	**910**		420	91	ug/Kg	☼	04/11/14 07:04	04/15/14 12:57	20
PCB-1260	<210		420	210	ug/Kg	☼	04/11/14 07:04	04/15/14 12:57	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*04/11/14 07:04*	*04/15/14 12:57*	*20*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*04/11/14 07:04*	*04/15/14 12:57*	*20*

Client Sample ID: RG-12

Lab Sample ID: 500-74873-12
Date Collected: 04/09/14 12:45
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 74.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.7		22	7.7	ug/Kg	☼	04/11/14 07:04	04/15/14 17:58	1
PCB-1221	<9.5		22	9.5	ug/Kg	☼	04/11/14 07:04	04/15/14 17:58	1
PCB-1232	<9.5		22	9.5	ug/Kg	☼	04/11/14 07:04	04/15/14 17:58	1
PCB-1242	<7.1		22	7.1	ug/Kg	☼	04/11/14 07:04	04/15/14 17:58	1
PCB-1248	<8.5		22	8.5	ug/Kg	☼	04/11/14 07:04	04/15/14 17:58	1
PCB-1254	**110**		22	4.7	ug/Kg	☼	04/11/14 07:04	04/15/14 17:58	1
PCB-1260	<11		22	11	ug/Kg	☼	04/11/14 07:04	04/15/14 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*50 - 116*	*04/11/14 07:04*	*04/15/14 17:58*	*1*
DCB Decachlorobiphenyl	*104*		*48 - 142*	*04/11/14 07:04*	*04/15/14 17:58*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-13

Lab Sample ID: 500-74873-13
Date Collected: 04/09/14 12:46
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<140		390	140	ug/Kg	☼	04/11/14 07:04	04/15/14 13:25	20
PCB-1221	<170		390	170	ug/Kg	☼	04/11/14 07:04	04/15/14 13:25	20
PCB-1232	<170		390	170	ug/Kg	☼	04/11/14 07:04	04/15/14 13:25	20
PCB-1242	<130		390	130	ug/Kg	☼	04/11/14 07:04	04/15/14 13:25	20
PCB-1248	<150		390	150	ug/Kg	☼	04/11/14 07:04	04/15/14 13:25	20
PCB-1254	**5300**		390	85	ug/Kg	☼	04/11/14 07:04	04/15/14 13:25	20
PCB-1260	<190		390	190	ug/Kg	☼	04/11/14 07:04	04/15/14 13:25	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*04/11/14 07:04*	*04/15/14 13:25*	*20*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*04/11/14 07:04*	*04/15/14 13:25*	*20*

Client Sample ID: RG-14

Lab Sample ID: 500-74873-14
Date Collected: 04/09/14 12:47
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 85.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<6.8		19	6.8	ug/Kg	☼	04/11/14 07:04	04/16/14 08:54	1
PCB-1221	<8.5		19	8.5	ug/Kg	☼	04/11/14 07:04	04/16/14 08:54	1
PCB-1232	<8.4		19	8.4	ug/Kg	☼	04/11/14 07:04	04/16/14 08:54	1
PCB-1242	<6.3		19	6.3	ug/Kg	☼	04/11/14 07:04	04/16/14 08:54	1
PCB-1248	<7.6		19	7.6	ug/Kg	☼	04/11/14 07:04	04/16/14 08:54	1
PCB-1254	<4.2		19	4.2	ug/Kg	☼	04/11/14 07:04	04/16/14 08:54	1
PCB-1260	<9.5		19	9.5	ug/Kg	☼	04/11/14 07:04	04/16/14 08:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*93*		*50 - 116*	*04/11/14 07:04*	*04/16/14 08:54*	*1*
DCB Decachlorobiphenyl	*110*		*48 - 142*	*04/11/14 07:04*	*04/16/14 08:54*	*1*

Client Sample ID: RG-15

Lab Sample ID: 500-74873-15
Date Collected: 04/09/14 12:48
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 77.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.4		21	7.4	ug/Kg	☼	04/11/14 07:04	04/15/14 18:25	1
PCB-1221	<9.2		21	9.2	ug/Kg	☼	04/11/14 07:04	04/15/14 18:25	1
PCB-1232	<9.1		21	9.1	ug/Kg	☼	04/11/14 07:04	04/15/14 18:25	1
PCB-1242	<6.9		21	6.9	ug/Kg	☼	04/11/14 07:04	04/15/14 18:25	1
PCB-1248	<8.2		21	8.2	ug/Kg	☼	04/11/14 07:04	04/15/14 18:25	1
PCB-1254	**16**	**J**	21	4.5	ug/Kg	☼	04/11/14 07:04	04/15/14 18:25	1
PCB-1260	<10		21	10	ug/Kg	☼	04/11/14 07:04	04/15/14 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*60*		*50 - 116*	*04/11/14 07:04*	*04/15/14 18:25*	*1*
DCB Decachlorobiphenyl	*104*		*48 - 142*	*04/11/14 07:04*	*04/15/14 18:25*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-16

Lab Sample ID: 500-74873-16
Date Collected: 04/09/14 12:49
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 60.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<190		540	190	ug/Kg	☼	04/11/14 07:04	04/15/14 14:06	20
PCB-1221	<240		540	240	ug/Kg	☼	04/11/14 07:04	04/15/14 14:06	20
PCB-1232	<240		540	240	ug/Kg	☼	04/11/14 07:04	04/15/14 14:06	20
PCB-1242	<180		540	180	ug/Kg	☼	04/11/14 07:04	04/15/14 14:06	20
PCB-1248	<210		540	210	ug/Kg	☼	04/11/14 07:04	04/15/14 14:06	20
PCB-1254	**11000**		540	120	ug/Kg	☼	04/11/14 07:04	04/15/14 14:06	20
PCB-1260	<260		540	260	ug/Kg	☼	04/11/14 07:04	04/15/14 14:06	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*04/11/14 07:04*	*04/15/14 14:06*	*20*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*04/11/14 07:04*	*04/15/14 14:06*	*20*

Client Sample ID: RG-17

Lab Sample ID: 500-74873-17
Date Collected: 04/09/14 12:50
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 80.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<35		100	35	ug/Kg	☼	04/11/14 07:04	04/15/14 18:39	5
PCB-1221	<44		100	44	ug/Kg	☼	04/11/14 07:04	04/15/14 18:39	5
PCB-1232	<44		100	44	ug/Kg	☼	04/11/14 07:04	04/15/14 18:39	5
PCB-1242	<33		100	33	ug/Kg	☼	04/11/14 07:04	04/15/14 18:39	5
PCB-1248	<40		100	40	ug/Kg	☼	04/11/14 07:04	04/15/14 18:39	5
PCB-1254	<22		100	22	ug/Kg	☼	04/11/14 07:04	04/15/14 18:39	5
PCB-1260	<49		100	49	ug/Kg	☼	04/11/14 07:04	04/15/14 18:39	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*50 - 116*	*04/11/14 07:04*	*04/15/14 18:39*	*5*
DCB Decachlorobiphenyl	*128*		*48 - 142*	*04/11/14 07:04*	*04/15/14 18:39*	*5*

Client Sample ID: RG-18

Lab Sample ID: 500-74873-18
Date Collected: 04/09/14 12:51
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 68.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<4200		12000	4200	ug/Kg	☼	04/11/14 07:04	04/15/14 18:53	500
PCB-1221	<5200		12000	5200	ug/Kg	☼	04/11/14 07:04	04/15/14 18:53	500
PCB-1232	<5200		12000	5200	ug/Kg	☼	04/11/14 07:04	04/15/14 18:53	500
PCB-1242	<3900		12000	3900	ug/Kg	☼	04/11/14 07:04	04/15/14 18:53	500
PCB-1248	<4700		12000	4700	ug/Kg	☼	04/11/14 07:04	04/15/14 18:53	500
PCB-1254	**85000**		12000	2600	ug/Kg	☼	04/11/14 07:04	04/15/14 18:53	500
PCB-1260	<5800		12000	5800	ug/Kg	☼	04/11/14 07:04	04/15/14 18:53	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*04/11/14 07:04*	*04/15/14 18:53*	*500*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*04/11/14 07:04*	*04/15/14 18:53*	*500*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-19

Lab Sample ID: 500-74873-19
Date Collected: 04/09/14 12:52
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 72.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<160		450	160	ug/Kg	☼	04/11/14 07:04	04/15/14 14:47	20
PCB-1221	<200		450	200	ug/Kg	☼	04/11/14 07:04	04/15/14 14:47	20
PCB-1232	<190		450	190	ug/Kg	☼	04/11/14 07:04	04/15/14 14:47	20
PCB-1242	<150		450	150	ug/Kg	☼	04/11/14 07:04	04/15/14 14:47	20
PCB-1248	<180		450	180	ug/Kg	☼	04/11/14 07:04	04/15/14 14:47	20
PCB-1254	**4300**		450	96	ug/Kg	☼	04/11/14 07:04	04/15/14 14:47	20
PCB-1260	<220		450	220	ug/Kg	☼	04/11/14 07:04	04/15/14 14:47	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*04/11/14 07:04*	*04/15/14 14:47*	*20*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*04/11/14 07:04*	*04/15/14 14:47*	*20*

Client Sample ID: RG-20

Lab Sample ID: 500-74873-20
Date Collected: 04/09/14 13:05
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 68.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<170		490	170	ug/Kg	☼	04/11/14 07:04	04/15/14 15:00	20
PCB-1221	<220		490	220	ug/Kg	☼	04/11/14 07:04	04/15/14 15:00	20
PCB-1232	<210		490	210	ug/Kg	☼	04/11/14 07:04	04/15/14 15:00	20
PCB-1242	<160		490	160	ug/Kg	☼	04/11/14 07:04	04/15/14 15:00	20
PCB-1248	<190		490	190	ug/Kg	☼	04/11/14 07:04	04/15/14 15:00	20
PCB-1254	**880**		490	110	ug/Kg	☼	04/11/14 07:04	04/15/14 15:00	20
PCB-1260	<240		490	240	ug/Kg	☼	04/11/14 07:04	04/15/14 15:00	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*04/11/14 07:04*	*04/15/14 15:00*	*20*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*04/11/14 07:04*	*04/15/14 15:00*	*20*

Client Sample ID: RG-21

Lab Sample ID: 500-74873-21
Date Collected: 04/09/14 13:06
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 70.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<8.2		23	8.2	ug/Kg	☼	04/15/14 18:50	04/16/14 11:39	1
PCB-1221	<10		23	10	ug/Kg	☼	04/15/14 18:50	04/16/14 11:39	1
PCB-1232	<10		23	10	ug/Kg	☼	04/15/14 18:50	04/16/14 11:39	1
PCB-1242	<7.6		23	7.6	ug/Kg	☼	04/15/14 18:50	04/16/14 11:39	1
PCB-1248	<9.2		23	9.2	ug/Kg	☼	04/15/14 18:50	04/16/14 11:39	1
PCB-1254	**35**		23	5.0	ug/Kg	☼	04/15/14 18:50	04/16/14 11:39	1
PCB-1260	<11		23	11	ug/Kg	☼	04/15/14 18:50	04/16/14 11:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*50 - 116*	*04/15/14 18:50*	*04/16/14 11:39*	*1*
DCB Decachlorobiphenyl	*109*		*48 - 142*	*04/15/14 18:50*	*04/16/14 11:39*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-22

Lab Sample ID: 500-74873-22
Date Collected: 04/09/14 13:07
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 78.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.4		21	7.4	ug/Kg	☼	04/15/14 18:50	04/16/14 11:52	1
PCB-1221	<9.2		21	9.2	ug/Kg	☼	04/15/14 18:50	04/16/14 11:52	1
PCB-1232	<9.2		21	9.2	ug/Kg	☼	04/15/14 18:50	04/16/14 11:52	1
PCB-1242	<6.9		21	6.9	ug/Kg	☼	04/15/14 18:50	04/16/14 11:52	1
PCB-1248	<8.3		21	8.3	ug/Kg	☼	04/15/14 18:50	04/16/14 11:52	1
PCB-1254	**130**		21	4.5	ug/Kg	☼	04/15/14 18:50	04/16/14 11:52	1
PCB-1260	<10		21	10	ug/Kg	☼	04/15/14 18:50	04/16/14 11:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*82*		*50 - 116*	*04/15/14 18:50*	*04/16/14 11:52*	*1*
DCB Decachlorobiphenyl	*99*		*48 - 142*	*04/15/14 18:50*	*04/16/14 11:52*	*1*

Client Sample ID: RG-24

Lab Sample ID: 500-74873-23
Date Collected: 04/09/14 13:09
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 78.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.5		21	7.5	ug/Kg	☼	04/15/14 18:50	04/16/14 12:06	1
PCB-1221	<9.3		21	9.3	ug/Kg	☼	04/15/14 18:50	04/16/14 12:06	1
PCB-1232	<9.2		21	9.2	ug/Kg	☼	04/15/14 18:50	04/16/14 12:06	1
PCB-1242	<7.0		21	7.0	ug/Kg	☼	04/15/14 18:50	04/16/14 12:06	1
PCB-1248	<8.3		21	8.3	ug/Kg	☼	04/15/14 18:50	04/16/14 12:06	1
PCB-1254	**57**		21	4.6	ug/Kg	☼	04/15/14 18:50	04/16/14 12:06	1
PCB-1260	<10		21	10	ug/Kg	☼	04/15/14 18:50	04/16/14 12:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*96*		*50 - 116*	*04/15/14 18:50*	*04/16/14 12:06*	*1*
DCB Decachlorobiphenyl	*92*		*48 - 142*	*04/15/14 18:50*	*04/16/14 12:06*	*1*

Client Sample ID: RG-23

Lab Sample ID: 500-74873-24
Date Collected: 04/09/14 13:09
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 70.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<830		2300	830	ug/Kg	☼	04/15/14 18:50	04/16/14 14:09	100
PCB-1221	<1000		2300	1000	ug/Kg	☼	04/15/14 18:50	04/16/14 14:09	100
PCB-1232	<1000		2300	1000	ug/Kg	☼	04/15/14 18:50	04/16/14 14:09	100
PCB-1242	<770		2300	770	ug/Kg	☼	04/15/14 18:50	04/16/14 14:09	100
PCB-1248	<920		2300	920	ug/Kg	☼	04/15/14 18:50	04/16/14 14:09	100
PCB-1254	**20000**		2300	510	ug/Kg	☼	04/15/14 18:50	04/16/14 14:09	100
PCB-1260	<1200		2300	1200	ug/Kg	☼	04/15/14 18:50	04/16/14 14:09	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*04/15/14 18:50*	*04/16/14 14:09*	*100*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*04/15/14 18:50*	*04/16/14 14:09*	*100*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: DUP-01

Date Collected: 04/09/14 00:00
Date Received: 04/10/14 10:54

Lab Sample ID: 500-74873-25

Matrix: Solid
Percent Solids: 78.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.3		21	7.3	ug/Kg	☼	04/15/14 18:50	04/16/14 12:33	1
PCB-1221	<9.1		21	9.1	ug/Kg	☼	04/15/14 18:50	04/16/14 12:33	1
PCB-1232	<9.0		21	9.0	ug/Kg	☼	04/15/14 18:50	04/16/14 12:33	1
PCB-1242	<6.8		21	6.8	ug/Kg	☼	04/15/14 18:50	04/16/14 12:33	1
PCB-1248	<8.1		21	8.1	ug/Kg	☼	04/15/14 18:50	04/16/14 12:33	1
PCB-1254	**65**		21	4.5	ug/Kg	☼	04/15/14 18:50	04/16/14 12:33	1
PCB-1260	<10		21	10	ug/Kg	☼	04/15/14 18:50	04/16/14 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*50 - 116*	*04/15/14 18:50*	*04/16/14 12:33*	*1*
DCB Decachlorobiphenyl	*89*		*48 - 142*	*04/15/14 18:50*	*04/16/14 12:33*	*1*

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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
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)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

GC Semi VOA

Prep Batch: 231085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-74873-1	RG-1	Total/NA	Solid	3541	
500-74873-1 MS	RG-1	Total/NA	Solid	3541	
500-74873-1 MSD	RG-1	Total/NA	Solid	3541	
500-74873-2	RG-2	Total/NA	Solid	3541	
500-74873-3	RG-3	Total/NA	Solid	3541	
500-74873-4	RG-4	Total/NA	Solid	3541	
500-74873-5	RG-5	Total/NA	Solid	3541	
500-74873-6	RG-6	Total/NA	Solid	3541	
500-74873-7	RG-7	Total/NA	Solid	3541	
500-74873-8	RG-8	Total/NA	Solid	3541	
500-74873-9	RG-9	Total/NA	Solid	3541	
500-74873-10	RG-10	Total/NA	Solid	3541	
500-74873-11	RG-11	Total/NA	Solid	3541	
500-74873-12	RG-12	Total/NA	Solid	3541	
500-74873-13	RG-13	Total/NA	Solid	3541	
500-74873-14	RG-14	Total/NA	Solid	3541	
500-74873-15	RG-15	Total/NA	Solid	3541	
500-74873-16	RG-16	Total/NA	Solid	3541	
500-74873-17	RG-17	Total/NA	Solid	3541	
500-74873-18	RG-18	Total/NA	Solid	3541	
500-74873-19	RG-19	Total/NA	Solid	3541	
500-74873-20	RG-20	Total/NA	Solid	3541	
LCS 500-231085/2-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-231085/1-A	Method Blank	Total/NA	Solid	3541	

Analysis Batch: 231578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-74873-1	RG-1	Total/NA	Solid	8082	231085
500-74873-1 MS	RG-1	Total/NA	Solid	8082	231085
500-74873-1 MSD	RG-1	Total/NA	Solid	8082	231085
500-74873-2	RG-2	Total/NA	Solid	8082	231085
500-74873-3	RG-3	Total/NA	Solid	8082	231085
500-74873-4	RG-4	Total/NA	Solid	8082	231085
500-74873-5	RG-5	Total/NA	Solid	8082	231085
500-74873-6	RG-6	Total/NA	Solid	8082	231085
500-74873-7	RG-7	Total/NA	Solid	8082	231085
500-74873-8	RG-8	Total/NA	Solid	8082	231085
500-74873-9	RG-9	Total/NA	Solid	8082	231085
500-74873-10	RG-10	Total/NA	Solid	8082	231085
500-74873-11	RG-11	Total/NA	Solid	8082	231085
500-74873-12	RG-12	Total/NA	Solid	8082	231085
500-74873-13	RG-13	Total/NA	Solid	8082	231085
500-74873-14	RG-14	Total/NA	Solid	8082	231085
500-74873-15	RG-15	Total/NA	Solid	8082	231085
500-74873-16	RG-16	Total/NA	Solid	8082	231085
500-74873-17	RG-17	Total/NA	Solid	8082	231085
500-74873-18	RG-18	Total/NA	Solid	8082	231085
500-74873-19	RG-19	Total/NA	Solid	8082	231085
500-74873-20	RG-20	Total/NA	Solid	8082	231085
500-74873-21	RG-21	Total/NA	Solid	8082	231711
500-74873-22	RG-22	Total/NA	Solid	8082	231711

GC Semi VOA (Continued)

Analysis Batch: 231578 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-74873-23	RG-24	Total/NA	Solid	8082	231711
500-74873-24	RG-23	Total/NA	Solid	8082	231711
500-74873-25	DUP-01	Total/NA	Solid	8082	231711
LCS 500-231085/2-A	Lab Control Sample	Total/NA	Solid	8082	231085
LCS 500-231711/2-A	Lab Control Sample	Total/NA	Solid	8082	231711
MB 500-231085/1-A	Method Blank	Total/NA	Solid	8082	231085
MB 500-231711/1-A	Method Blank	Total/NA	Solid	8082	231711

Prep Batch: 231711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-74873-21	RG-21	Total/NA	Solid	3541	
500-74873-22	RG-22	Total/NA	Solid	3541	
500-74873-23	RG-24	Total/NA	Solid	3541	
500-74873-24	RG-23	Total/NA	Solid	3541	
500-74873-25	DUP-01	Total/NA	Solid	3541	
LCS 500-231711/2-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-231711/1-A	Method Blank	Total/NA	Solid	3541	

General Chemistry

Analysis Batch: 231185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-74873-1	RG-1	Total/NA	Solid	Moisture	
500-74873-1 DU	RG-1	Total/NA	Solid	Moisture	
500-74873-2	RG-2	Total/NA	Solid	Moisture	
500-74873-3	RG-3	Total/NA	Solid	Moisture	
500-74873-4	RG-4	Total/NA	Solid	Moisture	
500-74873-5	RG-5	Total/NA	Solid	Moisture	
500-74873-6	RG-6	Total/NA	Solid	Moisture	
500-74873-7	RG-7	Total/NA	Solid	Moisture	
500-74873-8	RG-8	Total/NA	Solid	Moisture	
500-74873-9	RG-9	Total/NA	Solid	Moisture	
500-74873-10	RG-10	Total/NA	Solid	Moisture	
500-74873-11	RG-11	Total/NA	Solid	Moisture	
500-74873-12	RG-12	Total/NA	Solid	Moisture	
500-74873-13	RG-13	Total/NA	Solid	Moisture	
500-74873-14	RG-14	Total/NA	Solid	Moisture	
500-74873-15	RG-15	Total/NA	Solid	Moisture	
500-74873-16	RG-16	Total/NA	Solid	Moisture	
500-74873-17	RG-17	Total/NA	Solid	Moisture	
500-74873-18	RG-18	Total/NA	Solid	Moisture	
500-74873-19	RG-19	Total/NA	Solid	Moisture	
500-74873-20	RG-20	Total/NA	Solid	Moisture	
500-74873-21	RG-21	Total/NA	Solid	Moisture	
500-74873-22	RG-22	Total/NA	Solid	Moisture	
500-74873-23	RG-24	Total/NA	Solid	Moisture	
500-74873-24	RG-23	Total/NA	Solid	Moisture	
500-74873-25	DUP-01	Total/NA	Solid	Moisture	

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCX1 (50-116)	DCB1 (48-142)						
500-74873-1	RG-1	0 D	0 D						
500-74873-1 MS	RG-1	0 D	0 D						
500-74873-1 MSD	RG-1	0 D	0 D						
500-74873-2	RG-2	80	110						
500-74873-3	RG-3	111	135						
500-74873-4	RG-4	86	106						
500-74873-5	RG-5	0 D	0 D						
500-74873-6	RG-6	89	109						
500-74873-7	RG-7	103	97						
500-74873-8	RG-8	0 D	0 D						
500-74873-9	RG-9	61	100						
500-74873-10	RG-10	80	122						
500-74873-11	RG-11	0 D	0 D						
500-74873-12	RG-12	86	104						
500-74873-13	RG-13	0 D	0 D						
500-74873-14	RG-14	93	110						
500-74873-15	RG-15	60	104						
500-74873-16	RG-16	0 D	0 D						
500-74873-17	RG-17	86	128						
500-74873-18	RG-18	0 D	0 D						
500-74873-19	RG-19	0 D	0 D						
500-74873-20	RG-20	0 D	0 D						
500-74873-21	RG-21	86	109						
500-74873-22	RG-22	82	99						
500-74873-23	RG-24	96	92						
500-74873-24	RG-23	0 D	0 D						
500-74873-25	DUP-01	76	89						
LCS 500-231085/2-A	Lab Control Sample	103	112						
LCS 500-231711/2-A	Lab Control Sample	90	118						
MB 500-231085/1-A	Method Blank	106	111						
MB 500-231711/1-A	Method Blank	88	121						

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

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

Lab Sample ID: MB 500-231085/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 231578 — **Prep Batch: 231085**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<5.9		17	5.9	ug/Kg		04/11/14 07:04	04/15/14 09:32	1
PCB-1221	<7.3		17	7.3	ug/Kg		04/11/14 07:04	04/15/14 09:32	1
PCB-1232	<7.3		17	7.3	ug/Kg		04/11/14 07:04	04/15/14 09:32	1
PCB-1242	<5.5		17	5.5	ug/Kg		04/11/14 07:04	04/15/14 09:32	1
PCB-1248	<6.6		17	6.6	ug/Kg		04/11/14 07:04	04/15/14 09:32	1
PCB-1254	<3.6		17	3.6	ug/Kg		04/11/14 07:04	04/15/14 09:32	1
PCB-1260	<8.2		17	8.2	ug/Kg		04/11/14 07:04	04/15/14 09:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*106*		*50 - 116*	*04/11/14 07:04*	*04/15/14 09:32*	*1*
DCB Decachlorobiphenyl	*111*		*48 - 142*	*04/11/14 07:04*	*04/15/14 09:32*	*1*

Lab Sample ID: LCS 500-231085/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 231578 — **Prep Batch: 231085**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	167	158		ug/Kg		95	59 - 110
PCB-1260	167	169		ug/Kg		101	69 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*103*		*50 - 116*
DCB Decachlorobiphenyl	*112*		*48 - 142*

Lab Sample ID: 500-74873-1 MS — **Client Sample ID: RG-1**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 231578 — **Prep Batch: 231085**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	<820		234	<830		ug/Kg	☼	NC	59 - 110
PCB-1260	<1100		234	<1200		ug/Kg	☼	NC	69 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*

Lab Sample ID: 500-74873-1 MSD — **Client Sample ID: RG-1**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 231578 — **Prep Batch: 231085**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	<820		223	<790		ug/Kg	☼	NC	59 - 110	NC	30
PCB-1260	<1100		223	<1100		ug/Kg	☼	NC	69 - 120	NC	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*

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

Lab Sample ID: MB 500-231711/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 231578 — **Prep Batch: 231711**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<5.9		17	5.9	ug/Kg		04/15/14 18:50	04/16/14 09:08	1
PCB-1221	<7.3		17	7.3	ug/Kg		04/15/14 18:50	04/16/14 09:08	1
PCB-1232	<7.3		17	7.3	ug/Kg		04/15/14 18:50	04/16/14 09:08	1
PCB-1242	<5.5		17	5.5	ug/Kg		04/15/14 18:50	04/16/14 09:08	1
PCB-1248	<6.6		17	6.6	ug/Kg		04/15/14 18:50	04/16/14 09:08	1
PCB-1254	<3.6		17	3.6	ug/Kg		04/15/14 18:50	04/16/14 09:08	1
PCB-1260	<8.2		17	8.2	ug/Kg		04/15/14 18:50	04/16/14 09:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*88*		*50 - 116*	*04/15/14 18:50*	*04/16/14 09:08*	*1*
DCB Decachlorobiphenyl	*121*		*48 - 142*	*04/15/14 18:50*	*04/16/14 09:08*	*1*

Lab Sample ID: LCS 500-231711/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 231578 — **Prep Batch: 231711**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			167	152		ug/Kg		91	59 - 110		
PCB-1260			167	175		ug/Kg		105	69 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*90*		*50 - 116*
DCB Decachlorobiphenyl	*118*		*48 - 142*

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-1 — Lab Sample ID: 500-74873-1

Date Collected: 04/09/14 11:35 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 70.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		100	231578	04/15/14 15:28	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-2 — Lab Sample ID: 500-74873-2

Date Collected: 04/09/14 11:36 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 81.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		1	231578	04/15/14 16:09	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-3 — Lab Sample ID: 500-74873-3

Date Collected: 04/09/14 11:37 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 70.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		5	231578	04/15/14 16:22	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-4 — Lab Sample ID: 500-74873-4

Date Collected: 04/09/14 11:38 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 78.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		1	231578	04/15/14 16:36	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-5 — Lab Sample ID: 500-74873-5

Date Collected: 04/09/14 11:39 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 78.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		20	231578	04/15/14 11:22	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-6

Lab Sample ID: 500-74873-6
Date Collected: 04/09/14 11:40
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 76.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		1	231578	04/15/14 16:50	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-7

Lab Sample ID: 500-74873-7
Date Collected: 04/09/14 12:40
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 76.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		1	231578	04/15/14 17:03	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-8

Lab Sample ID: 500-74873-8
Date Collected: 04/09/14 12:41
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 69.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		200	231578	04/15/14 17:17	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-9

Lab Sample ID: 500-74873-9
Date Collected: 04/09/14 12:42
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 76.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		1	231578	04/15/14 17:31	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-10

Lab Sample ID: 500-74873-10
Date Collected: 04/09/14 12:43
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 81.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		1	231578	04/15/14 17:44	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-11

Lab Sample ID: 500-74873-11
Date Collected: 04/09/14 12:44
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		20	231578	04/15/14 12:57	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-12

Lab Sample ID: 500-74873-12
Date Collected: 04/09/14 12:45
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 74.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		1	231578	04/15/14 17:58	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-13

Lab Sample ID: 500-74873-13
Date Collected: 04/09/14 12:46
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		20	231578	04/15/14 13:25	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-14

Lab Sample ID: 500-74873-14
Date Collected: 04/09/14 12:47
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		1	231578	04/16/14 08:54	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-15

Lab Sample ID: 500-74873-15
Date Collected: 04/09/14 12:48
Matrix: Solid
Date Received: 04/10/14 10:54
Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		1	231578	04/15/14 18:25	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-16 — Lab Sample ID: 500-74873-16

Date Collected: 04/09/14 12:49 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 60.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		20	231578	04/15/14 14:06	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-17 — Lab Sample ID: 500-74873-17

Date Collected: 04/09/14 12:50 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 80.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		5	231578	04/15/14 18:39	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-18 — Lab Sample ID: 500-74873-18

Date Collected: 04/09/14 12:51 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 68.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		500	231578	04/15/14 18:53	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-19 — Lab Sample ID: 500-74873-19

Date Collected: 04/09/14 12:52 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 72.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		20	231578	04/15/14 14:47	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-20 — Lab Sample ID: 500-74873-20

Date Collected: 04/09/14 13:05 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 68.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231085	04/11/14 07:04	STW	TAL CHI
Total/NA	Analysis	8082		20	231578	04/15/14 15:00	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Client Sample ID: RG-21 — Lab Sample ID: 500-74873-21

Date Collected: 04/09/14 13:06 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 70.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231711	04/15/14 18:50	DEA	TAL CHI
Total/NA	Analysis	8082		1	231578	04/16/14 11:39	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-22 — Lab Sample ID: 500-74873-22

Date Collected: 04/09/14 13:07 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 78.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231711	04/15/14 18:50	DEA	TAL CHI
Total/NA	Analysis	8082		1	231578	04/16/14 11:52	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-24 — Lab Sample ID: 500-74873-23

Date Collected: 04/09/14 13:09 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 78.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231711	04/15/14 18:50	DEA	TAL CHI
Total/NA	Analysis	8082		1	231578	04/16/14 12:06	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: RG-23 — Lab Sample ID: 500-74873-24

Date Collected: 04/09/14 13:09 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 70.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231711	04/15/14 18:50	DEA	TAL CHI
Total/NA	Analysis	8082		100	231578	04/16/14 14:09	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Client Sample ID: DUP-01 — Lab Sample ID: 500-74873-25

Date Collected: 04/09/14 00:00 — **Matrix: Solid**
Date Received: 04/10/14 10:54 — **Percent Solids: 78.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			231711	04/15/14 18:50	DEA	TAL CHI
Total/NA	Analysis	8082		1	231578	04/16/14 12:33	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	231185	04/11/14 14:06	LWN	TAL CHI

Laboratory References:

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

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - WI001368.17.1

TestAmerica Job ID: 500-74873-1

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999580010	08-31-14

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-74873 COC

Chain of Custody Record

Lab Job #: 500-74873

Chain of Custody Number:

Page 1 of 3

Temperature °C of Cooler: 3.3

(optional)

Report To
Contact: Jennine Trask
Company: ARCADIS
Address:
Address:
Phone: 414-276-7742
Fax:
E-Mail: jennine.trask@arcadis-us.com

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Client: ARCADIS
Client Project #: W1001368.17.1
Project Name: Madison Kipp
Project Location/State: Madison, WI
Lab Project #:
Sampler: J. Reed / I. Renfrew
Lab PM:

Preservative: 7

Parameter: PCB's 8082

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	PCB's 8082	Comments
1		RG-1	4/9/13	11:35	1	SO	X	
2		RG-2		11:36	1		X	
3		RG-3		11:37	1		X	
4		RG-4		11:38	1		X	
5		RG-5		11:39	1		X	
6		RG-6		11:40	1		X	
7		RG-7		12:40	1		X	
8		RG-8		12:41	1		X	
9		RG-9		12:42	1		X	
10		RG-10		12:43	1		X	

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days X 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	ARCADIS	4/10/14	1054	[signature]	TAL	4/10/14	1054
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered X

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Chain of Custody Record

Lab Job #: 500-74873

Chain of Custody Number:

Page 2 of 3

Temperature °C of Cooler:

(optional)

Report To
Contact: Jenaine Trask
Company: ARCADIS
Address:
Address:
Phone: 414-276-7742
Fax:
E-Mail: jenaine.trask@arcadis-us.com

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Client: ARCADIS
Client Project #: W20013368.17.1
Project Name: Madison Kipp
Project Location/State: Madison, WI
Lab Project #:
Sampler: J. Reed / I. Renfrew
Lab PM:

Preservative: 7
Parameter: RCRA 8082

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	RCRA 8082								Comments
11	X	RG-11	4/9/14	12:44	1	SO	X								MS/MSD
12		RG-12		12:45	1		X								
13		RG-13		12:46	1		X								
14		RG-14		12:47	1		X								
15		RG-15		12:48	1		X								
16		RG-16		12:49	1		X								
17		RG-17		12:50	1		X								
18		RG-18		12:51	1		X								
19		RG-19		12:52	1		X								
20		RG-20		13:05	1		X								

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days X 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	ARCADIS	4/10/14	1054	[signature]	TAL	4/10/14	1054
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered X

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

4/16/2014

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Chain of Custody Record

Lab Job #: 500-74823

Chain of Custody Number:

Page 3 of 3

Temperature °C of Cooler:

(optional)

Report To
Contact: Jennine Trash
Company: ARCADIS
Address:
Address:
Phone: 414-276-7742
Fax:
E-Mail: jennine.trash@arcadis-us.com

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Client: ARCADIS
Client Project #: WI001368.17.1
Project Name: Madison Kipp
Project Location/State: Madison, WI
Lab Project #:
Sampler: J. Reed / I. Renfrew
Lab PM:

Preservative: 7
Parameter: PCBs 8082

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	PCBs 8082	Comments
21		RG-21	4/14/14	1306	1	SO	X	
22		RG-22		1307	1		X	
23		RG-23		1308	1		X	RG-24 Black Tube
24		RG-24		1309	1		X	
25		DUP-01		—	1		X	Duplicate

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days X 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	ARCADIS	4/10/14	1054	[signature]	TAL	04/10/14	1054
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered X

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

4/16/2014

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 500-74873-1

Login Number: 74873
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	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	3.3
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.	False	Refer to Job Narrative for details.
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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: 500-76542-1
Client Project/Site: MadisonKipp WI001368.0017.00001

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

Attn: Ms. Jennine Trask

Authorized for release by:
5/16/2014 12:46:33 PM

Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

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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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Job ID: 500-76542-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-76542-1

Comments
Sample results for 1 and 10 confirmed via re-analysis for PCB.

Receipt
The samples were received on 5/8/2014 10:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9º C.

GC Semi VOA
Method(s) 8082: The following samples were diluted to bring the concentration of target analytes within the calibration range: Dup-02 (500-76542-10), RG-25 (500-76542-1), RG-26 (500-76542-2), RG-26 (500-76542-2 MS), RG-26 (500-76542-2 MSD), RG-28 (500-76542-4), RG-30 (500-76542-6), RG-31 (500-76542-7), RG-32 (500-76542-8). Elevated reporting limits (RLs) are provided.

Method(s) 8082: Surrogate recovery for the following samples was outside control limits: RG-26 (500-76542-2), RG-30 (500-76542-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8082: The following sample(s) required a dilution due to the nature of the sample matrix: Dup-02 (500-76542-10), RG-25 (500-76542-1), RG-32 (500-76542-8). Because of this dilution, the surrogate spike concentrations in the samples were reduced to a level where the recovery calculation does not provide useful information.

No other analytical or quality issues were noted.

Metals
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.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001368.0017.00001

TestAmerica Job ID: 500-76542-1

Client Sample ID: RG-25 — Lab Sample ID: 500-76542-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	420000		47000	18000	ug/Kg	2000	☼	8082	Total/NA
PCB-1254	130000		47000	10000	ug/Kg	2000	☼	8082	Total/NA

Client Sample ID: RG-26 — Lab Sample ID: 500-76542-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	650		110	42	ug/Kg	5	☼	8082	Total/NA
PCB-1254	890		110	23	ug/Kg	5	☼	8082	Total/NA

Client Sample ID: RG-27 — Lab Sample ID: 500-76542-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	180		22	8.5	ug/Kg	1	☼	8082	Total/NA
PCB-1254	380		22	4.7	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: RG-28 — Lab Sample ID: 500-76542-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	560		110	45	ug/Kg	5	☼	8082	Total/NA
PCB-1254	780		110	24	ug/Kg	5	☼	8082	Total/NA

Client Sample ID: RG-29 — Lab Sample ID: 500-76542-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	110		21	8.3	ug/Kg	1	☼	8082	Total/NA
PCB-1254	110		21	4.5	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: RG-30 — Lab Sample ID: 500-76542-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1700		240	94	ug/Kg	10	☼	8082	Total/NA
PCB-1254	1000		240	52	ug/Kg	10	☼	8082	Total/NA

Client Sample ID: RG-31 — Lab Sample ID: 500-76542-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	820		120	46	ug/Kg	5	☼	8082	Total/NA
PCB-1254	620		120	25	ug/Kg	5	☼	8082	Total/NA

Client Sample ID: RG-32 — Lab Sample ID: 500-76542-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	11000		1200	250	ug/Kg	50	☼	8082	Total/NA

Client Sample ID: RG-33 — Lab Sample ID: 500-76542-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	16	J	19	4.2	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: Dup-02 — Lab Sample ID: 500-76542-10

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001368.0017.00001

TestAmerica Job ID: 500-76542-1

Client Sample ID: Dup-02 (Continued)

Lab Sample ID: 500-76542-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	27000		2100	830	ug/Kg	100	☼	8082	Total/NA
PCB-1254	16000		2100	460	ug/Kg	100	☼	8082	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001368.0017.00001

TestAmerica Job ID: 500-76542-1

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

Protocol References:

EPA = US Environmental Protection Agency

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001368.0017.00001

TestAmerica Job ID: 500-76542-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-76542-1	RG-25	Solid	05/06/14 11:00	05/08/14 10:10
500-76542-2	RG-26	Solid	05/06/14 11:10	05/08/14 10:10
500-76542-3	RG-27	Solid	05/06/14 13:10	05/08/14 10:10
500-76542-4	RG-28	Solid	05/06/14 13:15	05/08/14 10:10
500-76542-5	RG-29	Solid	05/06/14 13:20	05/08/14 10:10
500-76542-6	RG-30	Solid	05/06/14 13:25	05/08/14 10:10
500-76542-7	RG-31	Solid	05/06/14 14:25	05/08/14 10:10
500-76542-8	RG-32	Solid	05/06/14 14:30	05/08/14 10:10
500-76542-9	RG-33	Solid	05/06/14 14:35	05/08/14 10:10
500-76542-10	Dup-02	Solid	05/06/14 00:00	05/08/14 10:10

Client Sample ID: RG-25

Lab Sample ID: 500-76542-1
Date Collected: 05/06/14 11:00
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 69.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17000		47000	17000	ug/Kg	☼	05/12/14 07:00	05/14/14 16:09	2000
PCB-1221	<21000		47000	21000	ug/Kg	☼	05/12/14 07:00	05/14/14 16:09	2000
PCB-1232	<20000		47000	20000	ug/Kg	☼	05/12/14 07:00	05/14/14 16:09	2000
PCB-1242	<15000		47000	15000	ug/Kg	☼	05/12/14 07:00	05/14/14 16:09	2000
PCB-1248	**420000**		47000	18000	ug/Kg	☼	05/12/14 07:00	05/14/14 16:09	2000
PCB-1254	**130000**		47000	10000	ug/Kg	☼	05/12/14 07:00	05/14/14 16:09	2000
PCB-1260	<23000		47000	23000	ug/Kg	☼	05/12/14 07:00	05/14/14 16:09	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*05/12/14 07:00*	*05/14/14 16:09*	*2000*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*05/12/14 07:00*	*05/14/14 16:09*	*2000*

Client Sample ID: RG-26

Lab Sample ID: 500-76542-2
Date Collected: 05/06/14 11:10
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 75.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<38		110	38	ug/Kg	☼	05/14/14 07:27	05/15/14 09:36	5
PCB-1221	<47		110	47	ug/Kg	☼	05/14/14 07:27	05/15/14 09:36	5
PCB-1232	<46		110	46	ug/Kg	☼	05/14/14 07:27	05/15/14 09:36	5
PCB-1242	<35		110	35	ug/Kg	☼	05/14/14 07:27	05/15/14 09:36	5
PCB-1248	**650**		110	42	ug/Kg	☼	05/14/14 07:27	05/15/14 09:36	5
PCB-1254	**890**		110	23	ug/Kg	☼	05/14/14 07:27	05/15/14 09:36	5
PCB-1260	<52		110	52	ug/Kg	☼	05/14/14 07:27	05/15/14 09:36	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*126*	*X*	*50 - 116*	*05/14/14 07:27*	*05/15/14 09:36*	*5*
DCB Decachlorobiphenyl	*118*		*48 - 142*	*05/14/14 07:27*	*05/15/14 09:36*	*5*

Client Sample ID: RG-27

Lab Sample ID: 500-76542-3
Date Collected: 05/06/14 13:10
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 76.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.6		22	7.6	ug/Kg	☼	05/12/14 07:00	05/13/14 19:29	1
PCB-1221	<9.5		22	9.5	ug/Kg	☼	05/12/14 07:00	05/13/14 19:29	1
PCB-1232	<9.4		22	9.4	ug/Kg	☼	05/12/14 07:00	05/13/14 19:29	1
PCB-1242	<7.1		22	7.1	ug/Kg	☼	05/12/14 07:00	05/13/14 19:29	1
PCB-1248	**180**		22	8.5	ug/Kg	☼	05/12/14 07:00	05/13/14 19:29	1
PCB-1254	**380**		22	4.7	ug/Kg	☼	05/12/14 07:00	05/13/14 19:29	1
PCB-1260	<11		22	11	ug/Kg	☼	05/12/14 07:00	05/13/14 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*82*		*50 - 116*	*05/12/14 07:00*	*05/13/14 19:29*	*1*
DCB Decachlorobiphenyl	*94*		*48 - 142*	*05/12/14 07:00*	*05/13/14 19:29*	*1*

Client Sample ID: RG-28

Lab Sample ID: 500-76542-4
Date Collected: 05/06/14 13:15
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 72.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<40		110	40	ug/Kg	☼	05/12/14 07:00	05/14/14 15:01	5
PCB-1221	<50		110	50	ug/Kg	☼	05/12/14 07:00	05/14/14 15:01	5
PCB-1232	<49		110	49	ug/Kg	☼	05/12/14 07:00	05/14/14 15:01	5
PCB-1242	<37		110	37	ug/Kg	☼	05/12/14 07:00	05/14/14 15:01	5
PCB-1248	**560**		110	45	ug/Kg	☼	05/12/14 07:00	05/14/14 15:01	5
PCB-1254	**780**		110	24	ug/Kg	☼	05/12/14 07:00	05/14/14 15:01	5
PCB-1260	<55		110	55	ug/Kg	☼	05/12/14 07:00	05/14/14 15:01	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*99*		*50 - 116*	*05/12/14 07:00*	*05/14/14 15:01*	*5*
DCB Decachlorobiphenyl	*114*		*48 - 142*	*05/12/14 07:00*	*05/14/14 15:01*	*5*

Client Sample ID: RG-29

Lab Sample ID: 500-76542-5
Date Collected: 05/06/14 13:20
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 76.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.4		21	7.4	ug/Kg	☼	05/12/14 07:00	05/13/14 20:10	1
PCB-1221	<9.2		21	9.2	ug/Kg	☼	05/12/14 07:00	05/13/14 20:10	1
PCB-1232	<9.1		21	9.1	ug/Kg	☼	05/12/14 07:00	05/13/14 20:10	1
PCB-1242	<6.9		21	6.9	ug/Kg	☼	05/12/14 07:00	05/13/14 20:10	1
PCB-1248	**110**		21	8.3	ug/Kg	☼	05/12/14 07:00	05/13/14 20:10	1
PCB-1254	**110**		21	4.5	ug/Kg	☼	05/12/14 07:00	05/13/14 20:10	1
PCB-1260	<10		21	10	ug/Kg	☼	05/12/14 07:00	05/13/14 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*81*		*50 - 116*	*05/12/14 07:00*	*05/13/14 20:10*	*1*
DCB Decachlorobiphenyl	*99*		*48 - 142*	*05/12/14 07:00*	*05/13/14 20:10*	*1*

Client Sample ID: RG-30

Lab Sample ID: 500-76542-6
Date Collected: 05/06/14 13:25
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 67.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<85		240	85	ug/Kg	☼	05/12/14 07:00	05/14/14 15:14	10
PCB-1221	<110		240	110	ug/Kg	☼	05/12/14 07:00	05/14/14 15:14	10
PCB-1232	<100		240	100	ug/Kg	☼	05/12/14 07:00	05/14/14 15:14	10
PCB-1242	<79		240	79	ug/Kg	☼	05/12/14 07:00	05/14/14 15:14	10
PCB-1248	**1700**		240	94	ug/Kg	☼	05/12/14 07:00	05/14/14 15:14	10
PCB-1254	**1000**		240	52	ug/Kg	☼	05/12/14 07:00	05/14/14 15:14	10
PCB-1260	<120		240	120	ug/Kg	☼	05/12/14 07:00	05/14/14 15:14	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*120*	*X*	*50 - 116*	*05/12/14 07:00*	*05/14/14 15:14*	*10*
DCB Decachlorobiphenyl	*153*	*X*	*48 - 142*	*05/12/14 07:00*	*05/14/14 15:14*	*10*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001368.0017.00001

TestAmerica Job ID: 500-76542-1

Client Sample ID: RG-31

Lab Sample ID: 500-76542-7
Date Collected: 05/06/14 14:25
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 66.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<41		120	41	ug/Kg	☼	05/12/14 07:00	05/14/14 15:28	5
PCB-1221	<52		120	52	ug/Kg	☼	05/12/14 07:00	05/14/14 15:28	5
PCB-1232	<51		120	51	ug/Kg	☼	05/12/14 07:00	05/14/14 15:28	5
PCB-1242	<39		120	39	ug/Kg	☼	05/12/14 07:00	05/14/14 15:28	5
PCB-1248	**820**		120	46	ug/Kg	☼	05/12/14 07:00	05/14/14 15:28	5
PCB-1254	**620**		120	25	ug/Kg	☼	05/12/14 07:00	05/14/14 15:28	5
PCB-1260	<58		120	58	ug/Kg	☼	05/12/14 07:00	05/14/14 15:28	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*109*		*50 - 116*	*05/12/14 07:00*	*05/14/14 15:28*	*5*
DCB Decachlorobiphenyl	*136*		*48 - 142*	*05/12/14 07:00*	*05/14/14 15:28*	*5*

Client Sample ID: RG-32

Lab Sample ID: 500-76542-8
Date Collected: 05/06/14 14:30
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 70.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<410		1200	410	ug/Kg	☼	05/12/14 07:00	05/14/14 15:42	50
PCB-1221	<510		1200	510	ug/Kg	☼	05/12/14 07:00	05/14/14 15:42	50
PCB-1232	<500		1200	500	ug/Kg	☼	05/12/14 07:00	05/14/14 15:42	50
PCB-1242	<380		1200	380	ug/Kg	☼	05/12/14 07:00	05/14/14 15:42	50
PCB-1248	<450		1200	450	ug/Kg	☼	05/12/14 07:00	05/14/14 15:42	50
PCB-1254	**11000**		1200	250	ug/Kg	☼	05/12/14 07:00	05/14/14 15:42	50
PCB-1260	<570		1200	570	ug/Kg	☼	05/12/14 07:00	05/14/14 15:42	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*05/12/14 07:00*	*05/14/14 15:42*	*50*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*05/12/14 07:00*	*05/14/14 15:42*	*50*

Client Sample ID: RG-33

Lab Sample ID: 500-76542-9
Date Collected: 05/06/14 14:35
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 82.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<6.8		19	6.8	ug/Kg	☼	05/12/14 07:00	05/13/14 21:05	1
PCB-1221	<8.5		19	8.5	ug/Kg	☼	05/12/14 07:00	05/13/14 21:05	1
PCB-1232	<8.4		19	8.4	ug/Kg	☼	05/12/14 07:00	05/13/14 21:05	1
PCB-1242	<6.3		19	6.3	ug/Kg	☼	05/12/14 07:00	05/13/14 21:05	1
PCB-1248	<7.6		19	7.6	ug/Kg	☼	05/12/14 07:00	05/13/14 21:05	1
PCB-1254	**16**	**J**	19	4.2	ug/Kg	☼	05/12/14 07:00	05/13/14 21:05	1
PCB-1260	<9.5		19	9.5	ug/Kg	☼	05/12/14 07:00	05/13/14 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*50 - 116*	*05/12/14 07:00*	*05/13/14 21:05*	*1*
DCB Decachlorobiphenyl	*101*		*48 - 142*	*05/12/14 07:00*	*05/13/14 21:05*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001368.0017.00001

TestAmerica Job ID: 500-76542-1

Client Sample ID: Dup-02

Date Collected: 05/06/14 00:00
Date Received: 05/08/14 10:10

Lab Sample ID: 500-76542-10

Matrix: Solid
Percent Solids: 76.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<750		2100	750	ug/Kg	☼	05/12/14 07:00	05/14/14 15:55	100
PCB-1221	<930		2100	930	ug/Kg	☼	05/12/14 07:00	05/14/14 15:55	100
PCB-1232	<920		2100	920	ug/Kg	☼	05/12/14 07:00	05/14/14 15:55	100
PCB-1242	<690		2100	690	ug/Kg	☼	05/12/14 07:00	05/14/14 15:55	100
PCB-1248	**27000**		2100	830	ug/Kg	☼	05/12/14 07:00	05/14/14 15:55	100
PCB-1254	**16000**		2100	460	ug/Kg	☼	05/12/14 07:00	05/14/14 15:55	100
PCB-1260	<1000		2100	1000	ug/Kg	☼	05/12/14 07:00	05/14/14 15:55	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*05/12/14 07:00*	*05/14/14 15:55*	*100*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*05/12/14 07:00*	*05/14/14 15:55*	*100*

Definitions/Glossary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001368.0017.00001

TestAmerica Job ID: 500-76542-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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
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)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001368.0017.00001

TestAmerica Job ID: 500-76542-1

GC Semi VOA

Prep Batch: 235744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-76542-1	RG-25	Total/NA	Solid	3541	
500-76542-3	RG-27	Total/NA	Solid	3541	
500-76542-4	RG-28	Total/NA	Solid	3541	
500-76542-5	RG-29	Total/NA	Solid	3541	
500-76542-6	RG-30	Total/NA	Solid	3541	
500-76542-7	RG-31	Total/NA	Solid	3541	
500-76542-8	RG-32	Total/NA	Solid	3541	
500-76542-9	RG-33	Total/NA	Solid	3541	
500-76542-10	Dup-02	Total/NA	Solid	3541	
LCS 500-235744/3-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-235744/1-A	Method Blank	Total/NA	Solid	3541	

Analysis Batch: 235967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-76542-1	RG-25	Total/NA	Solid	8082	235744
500-76542-3	RG-27	Total/NA	Solid	8082	235744
500-76542-4	RG-28	Total/NA	Solid	8082	235744
500-76542-5	RG-29	Total/NA	Solid	8082	235744
500-76542-6	RG-30	Total/NA	Solid	8082	235744
500-76542-7	RG-31	Total/NA	Solid	8082	235744
500-76542-8	RG-32	Total/NA	Solid	8082	235744
500-76542-9	RG-33	Total/NA	Solid	8082	235744
500-76542-10	Dup-02	Total/NA	Solid	8082	235744
LCS 500-235744/3-A	Lab Control Sample	Total/NA	Solid	8082	235744
MB 500-235744/1-A	Method Blank	Total/NA	Solid	8082	235744

Prep Batch: 236136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-76542-2	RG-26	Total/NA	Solid	3541	
500-76542-2 MS	RG-26	Total/NA	Solid	3541	
500-76542-2 MSD	RG-26	Total/NA	Solid	3541	
LCS 500-236136/2-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-236136/1-A	Method Blank	Total/NA	Solid	3541	

Analysis Batch: 236164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-76542-2	RG-26	Total/NA	Solid	8082	236136
500-76542-2 MS	RG-26	Total/NA	Solid	8082	236136
500-76542-2 MSD	RG-26	Total/NA	Solid	8082	236136
LCS 500-236136/2-A	Lab Control Sample	Total/NA	Solid	8082	236136
MB 500-236136/1-A	Method Blank	Total/NA	Solid	8082	236136

General Chemistry

Analysis Batch: 235364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-76542-1	RG-25	Total/NA	Solid	Moisture	
500-76542-2	RG-26	Total/NA	Solid	Moisture	
500-76542-2 DU	RG-26	Total/NA	Solid	Moisture	
500-76542-2 MS	RG-26	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 235364 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-76542-2 MSD	RG-26	Total/NA	Solid	Moisture	
500-76542-3	RG-27	Total/NA	Solid	Moisture	
500-76542-4	RG-28	Total/NA	Solid	Moisture	
500-76542-5	RG-29	Total/NA	Solid	Moisture	
500-76542-6	RG-30	Total/NA	Solid	Moisture	
500-76542-7	RG-31	Total/NA	Solid	Moisture	
500-76542-8	RG-32	Total/NA	Solid	Moisture	
500-76542-9	RG-33	Total/NA	Solid	Moisture	
500-76542-10	Dup-02	Total/NA	Solid	Moisture	

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001368.0017.00001

TestAmerica Job ID: 500-76542-1

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	TCX1 (50-116)	DCB1 (48-142)								
500-76542-1	RG-25	0 D	0 D								
500-76542-2	RG-26	126 X	118								
500-76542-2 MS	RG-26	109	93								
500-76542-2 MSD	RG-26	115	112								
500-76542-3	RG-27	82	94								
500-76542-4	RG-28	99	114								
500-76542-5	RG-29	81	99								
500-76542-6	RG-30	120 X	153 X								
500-76542-7	RG-31	109	136								
500-76542-8	RG-32	0 D	0 D								
500-76542-9	RG-33	79	101								
500-76542-10	Dup-02	0 D	0 D								
LCS 500-235744/3-A	Lab Control Sample	91	102								
LCS 500-236136/2-A	Lab Control Sample	79	84								
MB 500-235744/1-A	Method Blank	86	98								
MB 500-236136/1-A	Method Blank	86	77								

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

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

Lab Sample ID: MB 500-235744/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 235967 — **Prep Batch: 235744**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<5.9		17	5.9	ug/Kg		05/12/14 07:00	05/13/14 17:26	1
PCB-1221	<7.3		17	7.3	ug/Kg		05/12/14 07:00	05/13/14 17:26	1
PCB-1232	<7.3		17	7.3	ug/Kg		05/12/14 07:00	05/13/14 17:26	1
PCB-1242	<5.5		17	5.5	ug/Kg		05/12/14 07:00	05/13/14 17:26	1
PCB-1248	<6.6		17	6.6	ug/Kg		05/12/14 07:00	05/13/14 17:26	1
PCB-1254	<3.6		17	3.6	ug/Kg		05/12/14 07:00	05/13/14 17:26	1
PCB-1260	<8.2		17	8.2	ug/Kg		05/12/14 07:00	05/13/14 17:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*50 - 116*	*05/12/14 07:00*	*05/13/14 17:26*	*1*
DCB Decachlorobiphenyl	*98*		*48 - 142*	*05/12/14 07:00*	*05/13/14 17:26*	*1*

Lab Sample ID: LCS 500-235744/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 235967 — **Prep Batch: 235744**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	167	152		ug/Kg		91	59 - 110
PCB-1260	167	156		ug/Kg		94	69 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*91*		*50 - 116*
DCB Decachlorobiphenyl	*102*		*48 - 142*

Lab Sample ID: MB 500-236136/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 236164 — **Prep Batch: 236136**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<5.9		17	5.9	ug/Kg		05/14/14 07:27	05/14/14 15:58	1
PCB-1221	<7.3		17	7.3	ug/Kg		05/14/14 07:27	05/14/14 15:58	1
PCB-1232	<7.3		17	7.3	ug/Kg		05/14/14 07:27	05/14/14 15:58	1
PCB-1242	<5.5		17	5.5	ug/Kg		05/14/14 07:27	05/14/14 15:58	1
PCB-1248	<6.6		17	6.6	ug/Kg		05/14/14 07:27	05/14/14 15:58	1
PCB-1254	<3.6		17	3.6	ug/Kg		05/14/14 07:27	05/14/14 15:58	1
PCB-1260	<8.2		17	8.2	ug/Kg		05/14/14 07:27	05/14/14 15:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*50 - 116*	*05/14/14 07:27*	*05/14/14 15:58*	*1*
DCB Decachlorobiphenyl	*77*		*48 - 142*	*05/14/14 07:27*	*05/14/14 15:58*	*1*

Lab Sample ID: LCS 500-236136/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 236164 — **Prep Batch: 236136**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	167	133		ug/Kg		80	59 - 110

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

Lab Sample ID: LCS 500-236136/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 236164 — **Prep Batch: 236136**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1260			167	141		ug/Kg		85	69 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*79*		*50 - 116*
DCB Decachlorobiphenyl	*84*		*48 - 142*

Lab Sample ID: 500-76542-2 MS — **Client Sample ID: RG-26**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 236164 — **Prep Batch: 236136**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016	<38		214	512	F1	ug/Kg	☼	239	59 - 110		
PCB-1260	<52		214	630	F1	ug/Kg	☼	294	69 - 120		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*109*		*50 - 116*
DCB Decachlorobiphenyl	*93*		*48 - 142*

Lab Sample ID: 500-76542-2 MSD — **Client Sample ID: RG-26**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 236164 — **Prep Batch: 236136**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	<38		214	561	F1	ug/Kg	☼	262	59 - 110	9	30
PCB-1260	<52		214	684	F1	ug/Kg	☼	319	69 - 120	8	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*115*		*50 - 116*
DCB Decachlorobiphenyl	*112*		*48 - 142*

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001368.0017.00001

TestAmerica Job ID: 500-76542-1

Client Sample ID: RG-25 — Lab Sample ID: 500-76542-1

Date Collected: 05/06/14 11:00 — **Matrix: Solid**
Date Received: 05/08/14 10:10 — **Percent Solids: 69.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			235744	05/12/14 07:00	STW	TAL CHI
Total/NA	Analysis	8082		2000	235967	05/14/14 16:09	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	235364	05/08/14 15:17	LWN	TAL CHI

Client Sample ID: RG-26 — Lab Sample ID: 500-76542-2

Date Collected: 05/06/14 11:10 — **Matrix: Solid**
Date Received: 05/08/14 10:10 — **Percent Solids: 75.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			236136	05/14/14 07:27	STW	TAL CHI
Total/NA	Analysis	8082		5	236164	05/15/14 09:36	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	235364	05/08/14 15:17	LWN	TAL CHI

Client Sample ID: RG-27 — Lab Sample ID: 500-76542-3

Date Collected: 05/06/14 13:10 — **Matrix: Solid**
Date Received: 05/08/14 10:10 — **Percent Solids: 76.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			235744	05/12/14 07:00	STW	TAL CHI
Total/NA	Analysis	8082		1	235967	05/13/14 19:29	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	235364	05/08/14 15:17	LWN	TAL CHI

Client Sample ID: RG-28 — Lab Sample ID: 500-76542-4

Date Collected: 05/06/14 13:15 — **Matrix: Solid**
Date Received: 05/08/14 10:10 — **Percent Solids: 72.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			235744	05/12/14 07:00	STW	TAL CHI
Total/NA	Analysis	8082		5	235967	05/14/14 15:01	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	235364	05/08/14 15:17	LWN	TAL CHI

Client Sample ID: RG-29 — Lab Sample ID: 500-76542-5

Date Collected: 05/06/14 13:20 — **Matrix: Solid**
Date Received: 05/08/14 10:10 — **Percent Solids: 76.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			235744	05/12/14 07:00	STW	TAL CHI
Total/NA	Analysis	8082		1	235967	05/13/14 20:10	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	235364	05/08/14 15:17	LWN	TAL CHI

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001368.0017.00001

TestAmerica Job ID: 500-76542-1

Client Sample ID: RG-30

Lab Sample ID: 500-76542-6
Date Collected: 05/06/14 13:25
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 67.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			235744	05/12/14 07:00	STW	TAL CHI
Total/NA	Analysis	8082		10	235967	05/14/14 15:14	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	235364	05/08/14 15:17	LWN	TAL CHI

Client Sample ID: RG-31

Lab Sample ID: 500-76542-7
Date Collected: 05/06/14 14:25
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 66.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			235744	05/12/14 07:00	STW	TAL CHI
Total/NA	Analysis	8082		5	235967	05/14/14 15:28	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	235364	05/08/14 15:17	LWN	TAL CHI

Client Sample ID: RG-32

Lab Sample ID: 500-76542-8
Date Collected: 05/06/14 14:30
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 70.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			235744	05/12/14 07:00	STW	TAL CHI
Total/NA	Analysis	8082		50	235967	05/14/14 15:42	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	235364	05/08/14 15:17	LWN	TAL CHI

Client Sample ID: RG-33

Lab Sample ID: 500-76542-9
Date Collected: 05/06/14 14:35
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			235744	05/12/14 07:00	STW	TAL CHI
Total/NA	Analysis	8082		1	235967	05/13/14 21:05	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	235364	05/08/14 15:17	LWN	TAL CHI

Client Sample ID: Dup-02

Lab Sample ID: 500-76542-10
Date Collected: 05/06/14 00:00
Matrix: Solid
Date Received: 05/08/14 10:10
Percent Solids: 76.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			235744	05/12/14 07:00	STW	TAL CHI
Total/NA	Analysis	8082		100	235967	05/14/14 15:55	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	235364	05/08/14 15:17	LWN	TAL CHI

Laboratory References:

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

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001368.0017.00001

TestAmerica Job ID: 500-76542-1

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999580010	08-31-14

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

ARCADIS
Infrastructure · Water · Environment · Buildings

ID#:

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Page 1 of 1

Lab Work Order #: 500- 76542

Send Results to:

Contact & Company Name: Jennine Trash/ARCADIS
Telephone: 414-276-7742
Address:
Fax:
City State Zip
E-mail Address: jennine.trash@arcadis-us.com
Project Name/Location (City, State): Madison Kipp/Madison, WI
Project #: W1001368.0017.00001
Sampler's Printed Name: J. Reed
Sampler's Signature:

	Preservative	—
	Filtered (✓)	—
	# of Containers	1
	Container Information	4 oz.

Keys

Preservation Key:
A. H_2SO_4
B. HCL
C. HNO_3
D. NaOH
E. None
F. Other: _____
G. Other: _____
H. Other: _____

Container Information Key:
1. 40 ml Vial
2. 1 L Amber
3. 250 ml Plastic
4. 500 ml Plastic
5. Encore
6. 2 oz. Glass
7. 4 oz. Glass
8. 8 oz. Glass
9. Other: _____
10. Other: _____

Matrix Key:
SO - Soil, SE - Sediment, NL - NAPL/Oil, W - Water, SL - Sludge, SW - Sample Wipe, T - Tissue, A - Air, Other: _____

PARAMETER ANALYSIS & METHOD

	Sample ID	Collection Date	Collection Time	Type (✓) Comp	Type (✓) Grab	Matrix	RCRA Metals 6010B							REMARKS
1	RG-25	5/6/14	1100		✓	SO	X							
2	RG-26		1110		✓		X							MS/MSD
3	RG-27		1310		✓		X							
4	RG-28		1315		✓		X							
5	RG-29		1320		✓		X							
6	RG-30		1325		✓		X							
7	RG-31		1425		✓		X							
8	RG-32		1430		✓		X							
9	RG-33		1435		✓		X							
10	DUP-02		—		✓		X							

500-76542 COC

Special Instructions/Comments:
5 Day TAT

☐ Special QA/QC Instructions(✓):

Laboratory Information and Receipt		Relinquished By	Received By	Relinquished By	Laboratory Received By
Lab Name: TestAmerica	Cooler Custody Seal (✓)	Printed Name: Jay Reed	Printed Name: S. Kelsey	Printed Name:	Printed Name:
☑ Cooler packed with Ice (✓)	☐ Intact ☐ Not Intact	Signature:	Signature:	Signature:	Signature:
Specify Turnaround Requirements: 5-Day TAT	Sample Receipt:	Firm: ARCADIS	Firm/Courier: TAL/Chicago	Firm/Courier:	Firm:
Shipping Tracking #: 8057-7526-9076	Condition/Cooler Temp: 1.9	Date/Time: 5/7/14 1500	Date/Time: 05/08/14 @ 1010	Date/Time:	Date/Time:

20730826 CofC AR Form 01.12.2007

Distribution: WHITE – Laboratory returns with results YELLOW – Lab copy PINK – Retained by ARCADIS

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 500-76542-1

Login Number: 76542

List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	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	1.9c
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

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: 500-77554-1
Client Project/Site: MadisonKipp - PCB

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

Attn: Ms. Jennine Trask

Authorized for release by:
5/30/2014 1:29:29 PM

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

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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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Job ID: 500-77554-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-77554-1

Comments
No additional comments.

Receipt
The samples were received on 5/23/2014 10:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8º C.

GC Semi VOA
Method(s) 8082: The following samples were diluted to bring the concentration of target analytes within the calibration range: DUP (500-77554-3), RG 34 (500-77554-2), RG 34 (500-77554-2 MS), RG 34 (500-77554-2 MSD), RG 35 (500-77554-1). Elevated reporting limits (RLs) are provided.

Method(s) 8082: The following sample required a dilution due to the nature of the sample matrix: RG 35 (500-77554-1). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

Metals
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.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - PCB

TestAmerica Job ID: 500-77554-1

Client Sample ID: RG 35 — Lab Sample ID: 500-77554-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	600000		61000	24000	ug/Kg	2500	☼	8082	Total/NA
PCB-1254	420000		61000	13000	ug/Kg	2500	☼	8082	Total/NA

Client Sample ID: RG 34 — Lab Sample ID: 500-77554-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	850		110	41	ug/Kg	5	☼	8082	Total/NA
PCB-1254	440		110	23	ug/Kg	5	☼	8082	Total/NA

Client Sample ID: DUP — Lab Sample ID: 500-77554-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	600		100	40	ug/Kg	5	☼	8082	Total/NA
PCB-1254	460		100	22	ug/Kg	5	☼	8082	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - PCB

TestAmerica Job ID: 500-77554-1

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

Protocol References:

EPA = US Environmental Protection Agency

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

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - PCB

TestAmerica Job ID: 500-77554-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-77554-1	RG 35	Solid	05/22/14 13:30	05/23/14 10:10
500-77554-2	RG 34	Solid	05/22/14 11:00	05/23/14 10:10
500-77554-3	DUP	Solid	05/22/14 11:00	05/23/14 10:10

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - PCB

TestAmerica Job ID: 500-77554-1

Client Sample ID: RG 35

Lab Sample ID: 500-77554-1
Date Collected: 05/22/14 13:30
Matrix: Solid
Date Received: 05/23/14 10:10
Percent Solids: 68.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<21000		61000	21000	ug/Kg	☼	05/28/14 19:11	05/29/14 12:17	2500
PCB-1221	<27000		61000	27000	ug/Kg	☼	05/28/14 19:11	05/29/14 12:17	2500
PCB-1232	<26000		61000	26000	ug/Kg	☼	05/28/14 19:11	05/29/14 12:17	2500
PCB-1242	<20000		61000	20000	ug/Kg	☼	05/28/14 19:11	05/29/14 12:17	2500
PCB-1248	**600000**		61000	24000	ug/Kg	☼	05/28/14 19:11	05/29/14 12:17	2500
PCB-1254	**420000**		61000	13000	ug/Kg	☼	05/28/14 19:11	05/29/14 12:17	2500
PCB-1260	<30000		61000	30000	ug/Kg	☼	05/28/14 19:11	05/29/14 12:17	2500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*05/28/14 19:11*	*05/29/14 12:17*	*2500*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*05/28/14 19:11*	*05/29/14 12:17*	*2500*

Client Sample ID: RG 34

Lab Sample ID: 500-77554-2
Date Collected: 05/22/14 11:00
Matrix: Solid
Date Received: 05/23/14 10:10
Percent Solids: 78.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<37		110	37	ug/Kg	☼	05/28/14 19:11	05/29/14 11:22	5
PCB-1221	<46		110	46	ug/Kg	☼	05/28/14 19:11	05/29/14 11:22	5
PCB-1232	<46		110	46	ug/Kg	☼	05/28/14 19:11	05/29/14 11:22	5
PCB-1242	<35		110	35	ug/Kg	☼	05/28/14 19:11	05/29/14 11:22	5
PCB-1248	**850**		110	41	ug/Kg	☼	05/28/14 19:11	05/29/14 11:22	5
PCB-1254	**440**		110	23	ug/Kg	☼	05/28/14 19:11	05/29/14 11:22	5
PCB-1260	<52		110	52	ug/Kg	☼	05/28/14 19:11	05/29/14 11:22	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*88*		*50 - 116*	*05/28/14 19:11*	*05/29/14 11:22*	*5*
DCB Decachlorobiphenyl	*111*		*48 - 142*	*05/28/14 19:11*	*05/29/14 11:22*	*5*

Client Sample ID: DUP

Lab Sample ID: 500-77554-3
Date Collected: 05/22/14 11:00
Matrix: Solid
Date Received: 05/23/14 10:10
Percent Solids: 77.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<36		100	36	ug/Kg	☼	05/28/14 19:11	05/29/14 12:03	5
PCB-1221	<45		100	45	ug/Kg	☼	05/28/14 19:11	05/29/14 12:03	5
PCB-1232	<44		100	44	ug/Kg	☼	05/28/14 19:11	05/29/14 12:03	5
PCB-1242	<33		100	33	ug/Kg	☼	05/28/14 19:11	05/29/14 12:03	5
PCB-1248	**600**		100	40	ug/Kg	☼	05/28/14 19:11	05/29/14 12:03	5
PCB-1254	**460**		100	22	ug/Kg	☼	05/28/14 19:11	05/29/14 12:03	5
PCB-1260	<50		100	50	ug/Kg	☼	05/28/14 19:11	05/29/14 12:03	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*50 - 116*	*05/28/14 19:11*	*05/29/14 12:03*	*5*
DCB Decachlorobiphenyl	*100*		*48 - 142*	*05/28/14 19:11*	*05/29/14 12:03*	*5*

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
F1	MS and/or MSD Recovery exceeds the control limits

Glossary

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)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - PCB

TestAmerica Job ID: 500-77554-1

GC Semi VOA

Prep Batch: 238398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-77554-1	RG 35	Total/NA	Solid	3541	
500-77554-2	RG 34	Total/NA	Solid	3541	
500-77554-2 MS	RG 34	Total/NA	Solid	3541	
500-77554-2 MSD	RG 34	Total/NA	Solid	3541	
500-77554-3	DUP	Total/NA	Solid	3541	
LCS 500-238398/3-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-238398/1-A	Method Blank	Total/NA	Solid	3541	

Analysis Batch: 238436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-77554-1	RG 35	Total/NA	Solid	8082	238398
500-77554-2	RG 34	Total/NA	Solid	8082	238398
500-77554-2 MS	RG 34	Total/NA	Solid	8082	238398
500-77554-2 MSD	RG 34	Total/NA	Solid	8082	238398
500-77554-3	DUP	Total/NA	Solid	8082	238398
LCS 500-238398/3-A	Lab Control Sample	Total/NA	Solid	8082	238398
MB 500-238398/1-A	Method Blank	Total/NA	Solid	8082	238398

General Chemistry

Analysis Batch: 237795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-77554-1	RG 35	Total/NA	Solid	Moisture	
500-77554-2	RG 34	Total/NA	Solid	Moisture	
500-77554-2 DU	RG 34	Total/NA	Solid	Moisture	
500-77554-2 MS	RG 34	Total/NA	Solid	Moisture	
500-77554-2 MSD	RG 34	Total/NA	Solid	Moisture	
500-77554-3	DUP	Total/NA	Solid	Moisture	

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - PCB

TestAmerica Job ID: 500-77554-1

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		TCX1	DCB1						
Lab Sample ID	Client Sample ID	(50-116)	(48-142)						
500-77554-1	RG 35	0 D	0 D						
500-77554-2	RG 34	88	111						
500-77554-2 MS	RG 34	92	108						
500-77554-2 MSD	RG 34	103	116						
500-77554-3	DUP	86	100						
LCS 500-238398/3-A	Lab Control Sample	88	99						
MB 500-238398/1-A	Method Blank	79	89						

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - PCB

TestAmerica Job ID: 500-77554-1

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

Lab Sample ID: MB 500-238398/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 238436 — **Prep Batch: 238398**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<5.9		17	5.9	ug/Kg		05/28/14 19:11	05/29/14 08:11	1
PCB-1221	<7.3		17	7.3	ug/Kg		05/28/14 19:11	05/29/14 08:11	1
PCB-1232	<7.3		17	7.3	ug/Kg		05/28/14 19:11	05/29/14 08:11	1
PCB-1242	<5.5		17	5.5	ug/Kg		05/28/14 19:11	05/29/14 08:11	1
PCB-1248	<6.6		17	6.6	ug/Kg		05/28/14 19:11	05/29/14 08:11	1
PCB-1254	<3.6		17	3.6	ug/Kg		05/28/14 19:11	05/29/14 08:11	1
PCB-1260	<8.2		17	8.2	ug/Kg		05/28/14 19:11	05/29/14 08:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*50 - 116*	*05/28/14 19:11*	*05/29/14 08:11*	*1*
DCB Decachlorobiphenyl	*89*		*48 - 142*	*05/28/14 19:11*	*05/29/14 08:11*	*1*

Lab Sample ID: LCS 500-238398/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 238436 — **Prep Batch: 238398**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	167	147		ug/Kg		88	59 - 110
PCB-1260	167	155		ug/Kg		93	69 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*88*		*50 - 116*
DCB Decachlorobiphenyl	*99*		*48 - 142*

Lab Sample ID: 500-77554-2 MS — **Client Sample ID: RG 34**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 238436 — **Prep Batch: 238398**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	<37		211	651	F1	ug/Kg	☼	309	59 - 110
PCB-1260	<52		211	506	F1	ug/Kg	☼	240	69 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*92*		*50 - 116*
DCB Decachlorobiphenyl	*108*		*48 - 142*

Lab Sample ID: 500-77554-2 MSD — **Client Sample ID: RG 34**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 238436 — **Prep Batch: 238398**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	<37		210	735	F1	ug/Kg	☼	350	59 - 110	12	30
PCB-1260	<52		210	507	F1	ug/Kg	☼	242	69 - 120	0	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*103*		*50 - 116*
DCB Decachlorobiphenyl	*116*		*48 - 142*

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - PCB

TestAmerica Job ID: 500-77554-1

Client Sample ID: RG 35

Lab Sample ID: 500-77554-1
Date Collected: 05/22/14 13:30
Matrix: Solid
Date Received: 05/23/14 10:10
Percent Solids: 68.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			238398	05/28/14 19:11	DEA	TAL CHI
Total/NA	Analysis	8082		2500	238436	05/29/14 12:17	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	237795	05/23/14 17:04	PFK	TAL CHI

Client Sample ID: RG 34

Lab Sample ID: 500-77554-2
Date Collected: 05/22/14 11:00
Matrix: Solid
Date Received: 05/23/14 10:10
Percent Solids: 78.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			238398	05/28/14 19:11	DEA	TAL CHI
Total/NA	Analysis	8082		5	238436	05/29/14 11:22	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	237795	05/23/14 17:04	PFK	TAL CHI

Client Sample ID: DUP

Lab Sample ID: 500-77554-3
Date Collected: 05/22/14 11:00
Matrix: Solid
Date Received: 05/23/14 10:10
Percent Solids: 77.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			238398	05/28/14 19:11	DEA	TAL CHI
Total/NA	Analysis	8082		5	238436	05/29/14 12:03	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	237795	05/23/14 17:04	PFK	TAL CHI

Laboratory References:

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

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp - PCB

TestAmerica Job ID: 500-77554-1

Laboratory: TestAmerica Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999580010	08-31-14

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

ARCADIS
Infrastructure, environment, buildings

ID#:

CHAIN OF CUSTODY & LABORATORY ANALYSIS REQUEST FORM

Page 1 of 1

Lab Work Order # 500-77554

Send Results to:

Contact & Company Name: Alina Walek MKC
Telephone: 608-242 5200
Address: 201 Waubesa St.
Fax:
City: Madison State: WI Zip:
E-mail Address: awalcek@madison-kipp.com
Project Name/Location (City, State): Madison, WI
Project #:
Sampler's Printed Name: Alina Walcek
Sampler's Signature: Alina Walcek

	Preservative	Filtered (✓)	# of Containers	Container Information
1				
2				
3				

PARAMETER ANALYSIS & METHOD

PCB

500-77554 COC

	Sample ID	Collection Date	Collection Time	Type (✓) Comp	Type (✓) Grab	Matrix	PCB							REMARKS
1	RG 35	5/22	13:30		✓	SO	✓							
2	RG 34	5/22	11:00		✓	SO	✓							
2	RG 34 MS/MSD	5/22	11:00		✓	SO	✓							2 Bottles
3	DUP	5/22	11:00		✓	SO	✓							

Keys

Preservation Key:
A. H_2SO_4
B. HCL
C. HNO_3
D. NaOH
E. None
F. Other: _____
G. Other: _____
H. Other: _____

Container Information Key:
1. 40 ml Vial
2. 1 L Amber
3. 250 ml Plastic
4. 500 ml Plastic
5. Encore
6. 2 oz. Glass
7. 4 oz. Glass
8. 8 oz. Glass
9. Other: _____
10. Other: _____

Matrix Key:
SO - Soil
W - Water
T - Tissue
SE - Sediment
SL - Sludge
A - Air
NL - NAPL/Oil
SW - Sample Wipe
Other: _____

Special Instructions/Comments:
Send report to Jennine Trask

☐ Special QA/QC Instructions(✓):

Laboratory Information and Receipt		Relinquished By	Received By	Relinquished By	Laboratory Received By
Lab Name:	Cooler Custody Seal (✓)	Printed Name: Alina Walek	Printed Name:	Printed Name:	Printed Name: Sherri Scott
☐ Cooler packed with ice (✓)	☐ Intact ☐ Not Intact	Signature: Alina Walek	Signature:	Signature:	Signature: Sherri Scott
Specify Turnaround Requirements:	Sample Receipt:	Firm:	Firm/Courier:	Firm/Courier:	Firm: TA-CHI
Shipping Tracking #:	Condition/Cooler Temp: 3.8	Date/Time:	Date/Time:	Date/Time:	Date/Time: 5/23/14 1010

20730826 CofC AR Form 01.12.2007

Distribution: WHITE – Laboratory returns with results YELLOW – Lab copy PINK – Retained by ARCADIS

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 500-77554-1

Login Number: 77554
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	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	3.8
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	