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MEMO

To:
Ms. Shanna Schmitt &
Ms. Stacey Hendry-Van Patten
Minnesota Pollution Control Agency

Copies:
Mr. Chuck Pinter, Ford Motor Company
Mr. John Meyers, Ford Twin Cities Assembly Plant

From:
Angharad Pagnon

Date:
May 6, 2013

ARCADIS Project No.:
DE000372.0002

Subject:
Summary of Propane Underground Storage Tank (UST) Sampling
Ford Twin Cities Assembly Plant, St. Paul, Minnesota
MPCA VIC Project Number BP23530
MPCA PBP Project Number PB3682

On behalf of Ford Motor Company (Ford), ARCADIS U.S., Inc. (ARCADIS) has prepared this memo report summarizing the results of the visual inspection, soil screening, and soil sampling completed in January and March 2013 during the removal of eight propane underground storage tanks (USTs) at the Twin Cities Assembly Plant (TCAP) in St. Paul, Minnesota (Figure 1). Field activities were completed in agreement with the Environmental Contingency Plan – *Propane Tank Removal* submitted on November 16, 2012 and approved by the Minnesota Pollution Control Agency (MPCA) on December 3, 2012.

Underground Storage Tank Location and History

Eight 30,000-gallon liquid propane USTs were located south of the steam plant (Figure 2). The USTs were of steel construction with cathodic protection. On December 8, 2006, Energy Economics, Inc. completed a cathodic protection survey of the propane and other on-site USTs. According to the report, the survey revealed that all of the USTs have cathodic potentials that are indicative of adequate protection.

Underground Storage Tank Removal

The removal of the eight 30,000-gallon liquid propane USTs was completed between January 14 and January 18, 2013 by Utility Energy Systems (MN License #MB005523) and overseen by Ford personnel. The tanks were removed for sale to a third party and associated concrete saddles were left in place. During the course of the tank removal, visual inspection and screening of the excavated and exposed soil was completed. Visual inspection did not identify any evidence of contamination. A photo-ionization detector (PID) with an 11.7 electron volt (eV) lamp was used to screen the soil at 29 sidewall and 14 floor

locations. Field screening results ranged from 0.0 to 5.3 parts per million (ppm) and averaged 1.09 (sidewall) and 1.16 ppm (floor), respectively.

The excavated material was also screened and inspected consistent with the methodologies described above. Visual inspection did not identify any evidence of contamination and soil screening results range from 0.0 to 1.6 ppm, with the exception of one location (365 ppm) collected within the upper two feet of the excavated material, south of Tank 8 (western most tank). On January 23, 2013, the initial PID result of 365 ppm could not be duplicated nor were additional visual or olfactory impacts identified. PID screening below the 365 ppm interval (2-4 feet below ground surface) was identified at 0.4 ppm during the January 23rd site visit. All excavated material was returned to the area and utilized as backfill.

January 2013 Soil Screening and Sampling

On January 23, 2013, ARCADIS conducted additional soil screening in the vicinity of the elevated initial PID detection of 365 ppm at Tank 8. Soil screening was completed from between 0.5 to 1 feet bgs and 1 to 2 feet bgs at the location of the initial 365 ppm detection. Additionally, soil was screened in a 2-foot radius around the elevated detection between 1 and 2 feet bgs.

Soil screening was completed by using a hand auger to collect adequate sample volume from the appropriate interval and placing the sample in a Ziploc bag. The sample was allowed to equilibrate in the bag and a PID with an 11.7 eV lamp punctured the bag to collect the headspace reading. A total of 3 screening samples were collected in the 2-foot radius. Screening results were of 0.00 ppm, 1.2 ppm, and 1.4 ppm, respectively. One soil sample [HA-PT3 (1-2)] was collected from the location exhibiting the highest PID reading and submitted to Test America in Canton, Ohio for laboratory analysis of:

- Volatile organic compounds (VOCs), collected with methanol preservation, via United States Environmental Protection Agency (US EPA) Method 8260;
- Semi-volatile organic compounds (SVOCs) via US EPA Method 8270;
- Resource Conservation and Recovery Act (RCRA) metals via US EPA Method 6010;
- Diesel range organics (DRO) via the Wisconsin Modified Method;
- Gasoline range organics (GRO) via the Wisconsin Modified Method;
- Cyanide via US EPA Method 335; and

Analytical results were compared to Tier II Residential and Tier II Industrial Soil Reference Values (SRVs). Three SVOCs (Benzo(b)fluoranthene, Fluoranthene, and Pyrene) and three metals (arsenic, barium, and total chromium) were detected above laboratory reporting limits, but did not exceed either of their respective MPCA standards. In addition, one VOC and seventeen SVOCs were detected below the laboratory reporting limits (i.e. estimated values), with no exceedances of applicable criteria. DRO was detected at 24 mg/kg, but there are no standards for this constituent. Analytical results are provided in Table 1.

March 2013 Soil Screening and Sampling

After completion of the tank removal and excavation, photographs of the process were reviewed by MPCA. A “gray material” was identified directly above the Tank 1 north saddle during the review and the

MPCA requested that a sample of this material be collected, described, and sampled for the constituents identified within the Environmental Contingency Plan – *Propane Tank Removal*.

On March 7, 2013, ARCADIS met with Utility Energy Systems and Semple Excavating to re-excavate the backfill and attempt to locate the “gray material”. Backfill was excavated along the north saddle and along the south side of the footing. No “gray material” was encountered in the top 10 to 12 feet of backfill, but was encountered approximately two feet below the top elevation of the saddle footing (Attachment 1). This ”gray material” was appeared to be reworked soil and contained poorly graded sand mixed with lean clay (Attachment 2). PID screening of this soil was completed, and no detections were measured. One soil sample [BH-PTB(0-2)] was collected of this material from zero to two feet below the footing for Tank 1 (or 12 to 14 feet below current ground surface) and submitted for laboratory analysis consistent with the January 2013 parameters identified above.

Analytical results were compared to Tier II Residential and Tier II Industrial SRVs. One VOC (methyl acetate) and DRO were detected, but there are no standards for these constituents. Eighteen SVOCs were detected, with no exceedances of applicable SRVs. Five metals were detected (arsenic, barium, cadmium, total chromium, and lead) with no exceedances of applicable SRVs. Analytical results are provided in Table 1. Review of the screening and analytical results indicates no evidence of release from the propane tank operations.

Data Quality Assurance Data Verification

In accordance with the Field Sampling Plan, a quality assurance/quality control (QA/QC) sample (trip blank) was submitted with each sample and analyzed. The QA/QC protocols meet or exceed the standards of care required by the State of Minnesota. All samples submitted for analysis by ARCADIS underwent third party verification by Enovis, Inc. of Detroit, Michigan. Verification is a reduced validation, which includes the review of hold times, blank contamination, and surrogate recoveries. Enovis completed verification of the monitoring results and trip blank; no significant findings that would affect the overall usability of the data. Laboratory analytical reports and verification reports of both samples are provided in Attachment 3.

Closing

We appreciate your assistance with this project. If you have questions or need additional information, please call Angharad Pagnon of ARCADIS at 612.373.0223 or Chuck Pinter of the Ford Environmental Quality Office at 313.390.0875.

Attachments:

Table 1 - Analytical Summary of Underground Storage Tank Collection System Sump Samples

Figure 1 - Site Location / Property Layout

Figure 2 - Sample Locations

Attachment 1 – Photographic Log - March 7, 2013

Attachment 2 – Boring Log for BH-PTB (0-2) (20130307)

Attachment 3 – 2012 Laboratory and Validation Reports

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Tables

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Table 1. Summary of Detected Constituents in Soil Samples
Twin Cities Assembly Plant, St. Paul, Minnesota

Location ID					HA-PT3	BH-PTB
Sample ID					HA-PT3 (1-2) (20130123)	BH-PTB (0-2) (20130307)
Sample Date			Tier 2	Tier 2	1/23/2013	3/7/2013
Depth Interval	Analytical		Recreational	Industrial	1-2	0-2 (12 to 14 ft bgs)
Analyte	Method	Unit	SRV	SRV		
VOCs						
Methyl acetate	OSW-8260B	mg/kg	NS	NS	0.19 J	0.08 J
m-Xylene & p-Xylene *	OSW-8260B	mg/kg	110	110	0.011 UB	< 0.5
Methylene Chloride	OSW-8260B	mg/kg	270	158	0.21 UB	< 0.27
SVOCs						
2-Methylnaphthalene	OSW-8270C	mg/kg	120	369	0.0076 J	0.0099 J
Acenaphthene	OSW-8270C	mg/kg	1860	5260	0.025 J	0.015 J
Acenaphthylene	OSW-8270C	mg/kg	NS	NS	0.033 J	0.0051 J
Anthracene	OSW-8270C	mg/kg	10000	45400	0.067 J	0.019 J
Benzo (g,h,i) perylene	OSW-8270C	mg/kg	NS	NS	0.14 J	0.053 J
Benzo(a)anthracene	OSW-8270C	mg/kg	NS	NS	0.27 J	0.076 J
Benzo(a)pyrene	OSW-8270C	mg/kg	2	3	0.25 J	0.095 J
Benzo(b)fluoranthene	OSW-8270C	mg/kg	NS	NS	0.4	0.12 J
Benzo(k)fluoranthene	OSW-8270C	mg/kg	NS	NS	0.12 J	0.053 J
bis(2-Ethylhexyl)phthalate	OSW-8270C	mg/kg	690	2100	0.07 UB	0.069 UB
Carbazole	OSW-8270C	mg/kg	720	1310	0.031 J	< 0.39
Chrysene	OSW-8270C	mg/kg	NS	NS	0.25 J	0.1 J
Dibenzo(a,h)anthracene	OSW-8270C	mg/kg	NS	NS	0.048 J	0.011 J
Dibenzofuran	OSW-8270C	mg/kg	130	810	0.014 J	0.011 J
Fluoranthene	OSW-8270C	mg/kg	1290	6800	0.54	0.16 J
Fluorene	OSW-8270C	mg/kg	1200	4120	0.023 J	0.015 J
Indeno(1,2,3-cd)pyrene	OSW-8270C	mg/kg	NS	NS	0.12 J	0.053 J
Naphthalene	OSW-8270C	mg/kg	24	28	0.009 J	0.0094 J
Phenanthrene	OSW-8270C	mg/kg	NS	NS	0.26 J	0.094 J
Pyrene	OSW-8270C	mg/kg	1060	5800	0.43	0.13 J
BaP Equivalents	**	mg/kg	2	3	0.370	0.236
Metals						
Arsenic	OSW-6010B	mg/kg	11	20	3.1	5.1
Barium	OSW-6010B	mg/kg	1100	18000	44	64
Cadmium	OSW-6010B	mg/kg	35	200	0.13 J	0.2 J
Chromium, Total***	OSW-6010B	mg/kg	120/60000	650/100000	12	12
Lead	OSW-6010B	mg/kg	300	700	13 J	7.7 J
Mercury	OSW-6010B	mg/kg	1.2	1.5	0.050 UB	< 0.12
Other						
Diesel Range Organics	PUBL-SW-141	mg/kg	NS	NS	24	14

Notes:

mg/kg	Milligrams per kilogram.
NS	No standard.
VOCs	Volatile organic compounds.
SVOCs	Semi-volatile organic compounds.
SRV	Soil reference value.
MPCA	Minnesota Pollution Control Agency.
Shade	Result value is above the MPCA Tier 2 Recreational SRV.
Box	Result value is above the MPCA Tier 2 Industrial SRV.
<	The analyte was not detected; reporting limit identified
J	Indicates an estimated value; data indicates the presence of an analyte but the result is less than the sample quantitation limit, but greater than zero.
UB	The analyte was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
*	Standards for Total Xylene identified
**	Benzo(a)pyrene (BaP) Equivalents were calculated using the MPCA guidance; detected values and half-values of any non-detects were utilized for the BaP Equivalent.
***	SRVs are for Chromium VI and Chromium III respectively, reported data is for total chromium and is therefore compared to the lower of the SRVs.

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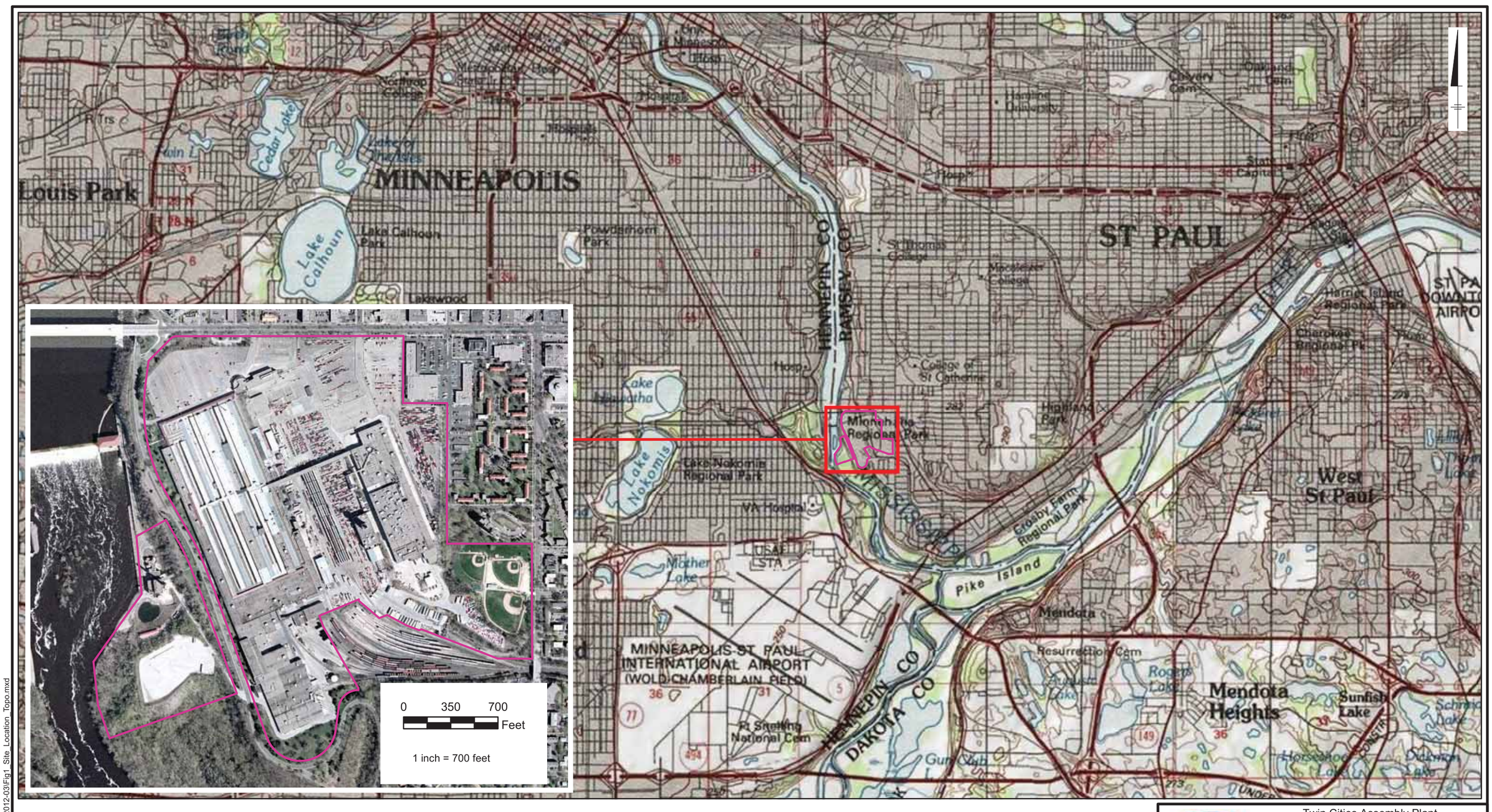
Figures



LEGEND:

Ford Property Boundary

NOTES:

Imagery Source: United States Geological Survey
High Resolution Orthoimagery for the Minneapolis-St. Paul, Minnesota Urban Area

Topographic Map Source:
© 2007 National Geographic Society

Twin Cities Assembly Plant
Ford Motor Company
St. Paul, Minnesota

Site Location / Property Layout

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FIGURE
1

CITY: Minneapolis, MN DB: MGress PM: BZinda
Project MN000593
G:\GIS\Projects\Ford Ranger\ArcMap\2012\2012-03\Fig1_Site_Location_Topo.mxd

LEGEND:

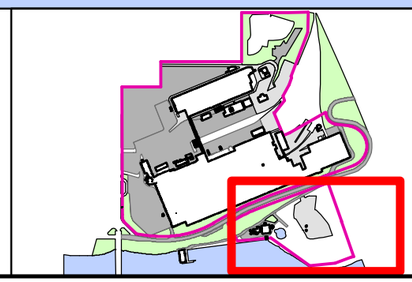
- Soil Sample
- Ford Property Boundary
- Fence
- Tunnel 1A
- UST Locations
- Buildings
- Asphalt
- Concrete
- Grass
- Mississippi River/Retention Pond
- Elevation Contours (Feet Mean Sea Level)

0 140 280 Feet

1 inch = 140 feet

NOTES:

Topographic survey for Area C completed January 2012, Sunde Land Surveying



Twin Cities Assembly Plant
Ford Motor Company
St. Paul, Minnesota

Propane USTs Location

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FIGURE 2

CITY: MPLS, MN DB: MG LD: RO
FORD ST. PAUL
Path: G:\GIS\Projects\Ford Ranger\ArcMap\2013\2013-04\Propane_USTs_20130410.mxd

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Attachments

Attachment 1 – Photographic Log – March 07, 2013
Twin Cities Assembly Plant, St. Paul, Minnesota

Photo: 1 **Orientation: West** **Description: Pre-excavation to collect "gray material" sample.**	

Photo: 2 **Orientation: Northwest** **Description: Original grade level pre-UST removal, with current backfill elevation.**	

Attachment 1 – Photographic Log – March 07, 2013
Twin Cities Assembly Plant, St. Paul, Minnesota

Photo: 3 **Orientation: South** **Description: Excavation of backfill near Tank 1 of former propane USTs.**	

Photo: 4 **Orientation: West** **Description: North saddle (right) with top of concrete pad visible (center).**	

Attachment 1 – Photographic Log – March 07, 2013
Twin Cities Assembly Plant, St. Paul, Minnesota

Photo: 5 **Orientation: Northwest** **Description: North saddle (right) with top and edge of concrete pad visible (center).**	

Photo: 6 **Orientation: Northwest** **Description: Closeup of north saddle base (right) with top and edge of concrete pad visible (center).**	

Attachment 1 – Photographic Log – March 07, 2013
Twin Cities Assembly Plant, St. Paul, Minnesota

Photo: 7 **Orientation: Northwest** **Description: Closeup of north saddle base (right) with top and edge of concrete pad visible (center), with "gray material" evident at base of concrete pad edge.**	

Photo: 8 **Orientation: West** **Description: Begin backfill of excavated location.**	

Attachment 1 – Photographic Log – March 07, 2013
Twin Cities Assembly Plant, St. Paul, Minnesota

Photo: 9 **Orientation: West** **Description: Final regrade after backfill of excavation on 03-07-2013.**	

Date Start/Finish: 3/7/2013 / 3/7/2013
Contractor: Semple Excavating

Sampling Method: Grab Sample

Northing: NA
Easting: NA

Drilled Depth (ft): 14
Surface Elevation (ft): NA

Descriptions By: KH

Location ID: **BH-PTB**
Client: Ford Motor Company

Location: Saint Paul, MN
Propane Tanks Area, West of Mississippi Blvd.

DEPTH (feet)	Recovery (inches)	PID (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description
0				Other		(0.0 - 12.0) Excavated backfill material to top of footing from current grade.
-1						
-2						
-3						
-4						
-5						
-6						
-7						
-8						

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Remarks:
ft: feet
NA: Not applicable/not available
Coordinates given in UTM Zone 15N, elevation given in NGVD 29.
Collected sample BH-PTB (0-2) (20130307)
Sample analyzed for VOCs, SVOCs, RCRA metals, DRO, GRO, cyanide, and lead
Soil description of soil excavated from 1-2 feet below padding to saddle for propane UST #1.

Date Start/Finish: 3/7/2013 / 3/7/2013 **Contractor:** Semple Excavating **Sampling Method:** Grab Sample	**Northing:** NA **Easting:** NA **Drilled Depth (ft):** 14 **Surface Elevation (ft):** NA **Descriptions By:** KH	**Location ID:** **BH-PTB** **Client:** Ford Motor Company **Location:** Saint Paul, MN Propane Tanks Area, West of Mississippi Blvd.

DEPTH (feet)	Recovery (inches)	PID (ppm)	Analytical Sample	USCS Code	Geologic Column	Stratigraphic Description
-8						
-9						
-10						
-11						
-12				Other		(12.0 - 14.0) Reworked soil (backfill), LEAN CLAY, medium plasticity, no dilatency, little silt to medium sand, trace coarse sand to medium pebbles, soft to medium stiff, very moist, greenish gray (GLEY1 5/10GY) and black (GLEY1 2.5/N), black globules of roots/fibrous organics; mixed with POORLY GRADED SAND, very fine to medium, little coarse, trace granules to medium pebbles, subangular
-13		0	X			
-14						

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Remarks:

ft: feet

NA: Not applicable/not available

Coordinates given in UTM Zone 15N, elevation given in NGVD 29.

Collected sample BH-PTB (0-2) (20130307)

Sample analyzed for VOCs, SVOCs, RCRA metals, DRO, GRO, cyanide, and lead

Soil description of soil excavated from 1-2 feet below padding to saddle for propane UST #1.

ANALYTICAL REPORT

Job Number: 240-20296-1

Job Description: Ford TCAP - E200572

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Attention: Mr. Rob Ellis

Approved for release.
Denise Pohl
Project Manager II
2/8/2013 12:31 PM

Denise Pohl
Project Manager II
denise.pohl@testamericainc.com
02/08/2013

TestAmerica Laboratories, Inc.
TestAmerica Canton 4101 Shuffel Street NW, North Canton, OH 44720
Tel (330) 497-9396 Fax (330) 497-0772 www.testamericainc.com

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford TCAP - E200572

Report Number: 240-20296-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 01/25/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 0.2 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples HA-PT3(1-2)(20130123) (240-20296-1) and METHANOL BLANK (240-20296-2) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 01/29/2013 and analyzed on 02/05/2013.

1,2,4-Trimethylbenzene was detected in method blank MB 240-73556/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Several analytes were detected in method blank MB 240-73556/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Insufficient sample volume was available to meet method-mandated requirements for matrix spike/matrix spike duplicate (MS/MSD) analyses for prep. batch 73556 on these samples HA-PT3(1-2)(20130123) (240-20296-1), METHANOL BLANK (240-20296-2).

No other difficulties were encountered during the VOCs analyses.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample HA-PT3(1-2)(20130123) (240-20296-1) was analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 01/28/2013 and analyzed on 02/05/2013.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 240-73402/5-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The laboratory control sample (LCS)) for batch 73402 exceeded control limits for the following analytes: Atrazine. This analyte was

biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Atrazine failed the recovery criteria high for LCS 240-73402/6-A. Refer to the QC report for details.

3,3'-Dichlorobenzidine and Hexachlorocyclopentadiene failed the recovery criteria low for the MS of sample HA-PT3(1-2)(20130123)MS (240-20296-1) in batch 240-74289.

Hexachlorocyclopentadiene failed the recovery criteria low for the MSD of sample HA-PT3(1-2)(20130123)MSD (240-20296-1) in batch 240-74289.

Refer to the QC report for details.

No other difficulties were encountered during the SVOCs analysis.

All other quality control parameters were within the acceptance limits.

WISCONSIN GRO

Samples HA-PT3(1-2)(20130123) (240-20296-1) and METHANOL BLANK (240-20296-2) were analyzed for Wisconsin GRO in accordance with Wisconsin DNR Modified GRO. The samples were prepared on 01/29/2013 and analyzed on 01/31/2013.

No difficulties were encountered during the WI-GRO analyses.

All quality control parameters were within the acceptance limits.

DIESEL RANGE ORGANICS (DRO)

Sample HA-PT3(1-2)(20130123) (240-20296-1) was analyzed for diesel range organics (DRO) in accordance with EPA SW-846 Method 8015B - DRO. The samples were prepared on 02/04/2013 and analyzed on 02/06/2013. This method was done in place of requested Wisconsin DRO due to a laboratory accident (broken container) with permission from client.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

No difficulties were encountered during the DRO analysis.

All quality control parameters were within the acceptance limits.

TOTAL METALS (ICP)

Sample HA-PT3(1-2)(20130123) (240-20296-1) was analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 01/31/2013 and analyzed on 02/01/2013.

Barium was detected in method blank MB 240-73800/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged. Refer to the QC report for details.

Lead failed the recovery criteria low for the MS of sample HA-PT3(1-2)(20130123)MS (240-20296-1) in batch 240-74091.

Lead failed the recovery criteria low for the MSD of sample HA-PT3(1-2)(20130123)MSD (240-20296-1) in batch 240-74091.

Refer to the QC report for details.

No other difficulties were encountered during the metals analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Sample HA-PT3(1-2)(20130123) (240-20296-1) was analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared on 01/31/2013 and analyzed on 02/01/2013.

Mercury was detected in method blank MB 240-73816/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged. Refer to the QC report for details.

The laboratory control sample (LCS) for batch 74116 exceeded control limits for the following analytes: Mercury.

Mercury failed the recovery criteria high for LCS 240-73816/2-A. Refer to the QC report for details.

Mercury exceeded the rpd limit for the MSD of sample HA-PT3(1-2)(20130123)MSD (240-20296-1) in batch 240-74116.

Refer to the QC report for details.

No other difficulties were encountered during the mercury analysis.

All other quality control parameters were within the acceptance limits.

CYANIDE

Sample HA-PT3(1-2)(20130123) (240-20296-1) was analyzed for total and amenable cyanide in accordance with EPA SW-846 Method 9012A. The samples were prepared and analyzed on 01/28/2013.

Cyanide, Total exceeded the rpd limit for the MSD of sample 240-20157-1 in batch 240-73440.

Refer to the QC report for details.

No other difficulties were encountered during the cyanide analysis.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Sample HA-PT3(1-2)(20130123) (240-20296-1) was analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 01/29/2013.

No difficulties were encountered during the % solids analysis.

All quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-20296-1	**HA-PT3(1-2)(20130123)**					
Methyl acetate		190	J	580	ug/Kg	8260B
Methylene Chloride		210	J B	290	ug/Kg	8260B
m-Xylene & p-Xylene		11	J B	580	ug/Kg	8260B
2-Methylnaphthalene		7.6	J	360	ug/Kg	8270C
Acenaphthene		25	J	360	ug/Kg	8270C
Acenaphthylene		33	J	360	ug/Kg	8270C
Anthracene		67	J	360	ug/Kg	8270C
Benzo[a]anthracene		270	J	360	ug/Kg	8270C
Benzo[a]pyrene		250	J	360	ug/Kg	8270C
Benzo[b]fluoranthene		400		360	ug/Kg	8270C
Benzo[g,h,i]perylene		140	J	360	ug/Kg	8270C
Benzo[k]fluoranthene		120	J	360	ug/Kg	8270C
Bis(2-ethylhexyl) phthalate		70	J B	360	ug/Kg	8270C
Carbazole		31	J	360	ug/Kg	8270C
Chrysene		250	J	360	ug/Kg	8270C
Dibenz(a,h)anthracene		48	J	360	ug/Kg	8270C
Dibenzofuran		14	J	360	ug/Kg	8270C
Fluoranthene		540		360	ug/Kg	8270C
Fluorene		23	J	360	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		120	J	360	ug/Kg	8270C
Naphthalene		9.0	J	360	ug/Kg	8270C
Phenanthrene		260	J	360	ug/Kg	8270C
Pyrene		430		360	ug/Kg	8270C
Diesel Range Organics [C10 - C28]		24		18	mg/Kg	8015B
Barium		44	B	21	mg/Kg	6010B
Cadmium		0.13	J	0.21	mg/Kg	6010B
Chromium		12		0.52	mg/Kg	6010B
Arsenic		3.1		1.0	mg/Kg	6010B
Lead		13		0.31	mg/Kg	6010B
Mercury		0.050	J B *	0.11	mg/Kg	7471A
Percent Solids		93		0.10	%	Moisture
Percent Moisture		7.3		0.10	%	Moisture
240-20296-2TB	**METHANOL BLANK**					
2-Butanone (MEK)		49	J	1000	ug/Kg	8260B
Methylene Chloride		190	J B	250	ug/Kg	8260B

METHOD SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Closed System Purge and Trap	TAL NC		SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270C	
Soxhlet Extraction	TAL NC		SW846 3540C
Wisconsin - Gasoline Range Organics (GC)	TAL NC	WI-GRO WI-GRO	
Closed System Purge and Trap	TAL NC		SW846 5035
Diesel Range Organics (DRO) (GC)	TAL NC	SW846 8015B	
Soxhlet Extraction	TAL NC		SW846 3540C
Metals (ICP)	TAL NC	SW846 6010B	
Preparation, Metals	TAL NC		SW846 3050B
Mercury (CVAA)	TAL NC	SW846 7471A	
Preparation, Mercury	TAL NC		SW846 7471A
Cyanide, Total and/or Amenable	TAL NC	SW846 9012A	
Cyanide, Total and/or Amenable, Distillation	TAL NC		SW846 9012A
Percent Moisture	TAL NC	EPA Moisture	

Lab References:

TAL NC = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

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

WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Method	Analyst	Analyst ID
SW846 8260B	Macenczak, Steven	SM
SW846 8270C	Gruber, John	JG
WI-GRO WI-GRO	Bosworth, Heather M	HMB
SW846 8015B	Bolgrin, Deborah	DB
SW846 6010B	Girard, Susan	SG
SW846 7471A	Heakin, David	DH
SW846 9012A	Martin, Aaron	AM
EPA Moisture	Kuhle, Julie	JK

SAMPLE SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-20296-1	HA-PT3(1-2)(20130123)	Solid	01/23/2013 1352	01/25/2013 0915
240-20296-2TB	METHANOL BLANK	Solid	01/23/2013 0000	01/25/2013 0915

SAMPLE RESULTS

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Client Sample ID: **HA-PT3(1-2)(20130123)**

Lab Sample ID: 240-20296-1 Date Sampled: 01/23/2013 1352
Client Matrix: Solid % Moisture: 7.3 Date Received: 01/25/2013 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-74309	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-73556	Lab File ID:	140621.D
Dilution:	1.0			Initial Weight/Volume:	9.371 g
Analysis Date:	02/05/2013 1352			Final Weight/Volume:	10 mL
Prep Date:	01/29/2013 1401				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		ND		200	1200
Allyl chloride		ND		61	580
Benzene		ND		14	290
Bromobenzene		ND		15	290
Bromochloromethane		ND		15	290
Bromodichloromethane		ND		11	290
Bromoform		ND		22	290
Bromomethane		ND		33	290
2-Butanone (MEK)		ND		49	1200
Carbon disulfide		ND		14	290
Carbon tetrachloride		ND		7.4	290
Chlorobenzene		ND		7.4	290
Chlorodibromomethane		ND		14	290
Chloroethane		ND		70	290
Chloroform		ND		10	290
Chloromethane		ND		16	290
2-Chlorotoluene		ND		10	290
4-Chlorotoluene		ND		11	290
cis-1,2-Dichloroethene		ND		7.9	290
cis-1,3-Dichloropropene		ND		9.1	290
Cyclohexane		ND		46	580
1,2-Dibromo-3-Chloropropane		ND		58	580
1,2-Dibromoethane		ND		12	290
Dibromomethane		ND		16	290
1,2-Dichlorobenzene		ND		9.9	290
1,3-Dichlorobenzene		ND		5.5	290
1,4-Dichlorobenzene		ND		9.2	290
Dichlorodifluoromethane		ND		18	290
1,1-Dichloroethane		ND		20	290
1,2-Dichloroethane		ND		12	290
1,1-Dichloroethene		ND		21	290
Dichlorofluoromethane		ND		29	580
1,2-Dichloropropane		ND		9.4	290
1,3-Dichloropropane		ND		25	290
2,2-Dichloropropane		ND		26	290
1,1-Dichloropropene		ND		12	290
Ethylbenzene		ND		6.2	290
Ethyl ether		ND		17	580
Hexachlorobutadiene		ND		16	290
2-Hexanone		ND		23	1200
Isopropylbenzene		ND		7.5	290
Methyl acetate		190	J	29	580
Methylcyclohexane		ND		14	580
Methylene Chloride		210	J B	89	290
4-Methyl-2-pentanone (MIBK)		ND		55	1200
Methyl tert butyl ether		ND		8.2	1200

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Client Sample ID: **HA-PT3(1-2)(20130123)**

Lab Sample ID: 240-20296-1 Date Sampled: 01/23/2013 1352
Client Matrix: Solid % Moisture: 7.3 Date Received: 01/25/2013 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-74309	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-73556	Lab File ID:	140621.D
Dilution:	1.0			Initial Weight/Volume:	9.371 g
Analysis Date:	02/05/2013 1352			Final Weight/Volume:	10 mL
Prep Date:	01/29/2013 1401				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
m-Xylene & p-Xylene		11	J B	7.1	580
Naphthalene		ND		7.7	290
n-Butylbenzene		ND		9.2	290
N-Propylbenzene		ND		16	290
o-Xylene		ND		9.8	290
p-Isopropyltoluene		ND		5.5	290
sec-Butylbenzene		ND		5.4	290
Styrene		ND		6.4	290
tert-Butylbenzene		ND		7.5	290
1,1,1,2-Tetrachloroethane		ND		10	290
1,1,2,2-Tetrachloroethane		ND		10	290
Tetrachloroethene		ND		14	290
Tetrahydrofuran		ND		56	1200
Toluene		ND		20	290
trans-1,2-Dichloroethene		ND		11	290
trans-1,3-Dichloropropene		ND		23	290
1,2,3-Trichlorobenzene		ND		12	290
1,2,4-Trichlorobenzene		ND		8.4	290
1,1,1-Trichloroethane		ND		24	290
1,1,2-Trichloroethane		ND		14	290
Trichloroethene		ND		11	290
Trichlorofluoromethane		ND		18	290
1,2,3-Trichloropropane		ND		24	290
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		45	290
1,2,4-Trimethylbenzene		ND		5.8	290
1,3,5-Trimethylbenzene		ND		6.7	290
Vinyl chloride		ND		21	290

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene (Surr)	128		26 - 141
Dibromofluoromethane (Surr)	101		30 - 122
1,2-Dichloroethane-d4 (Surr)	115		39 - 128
Toluene-d8 (Surr)	106		33 - 134

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Client Sample ID: **METHANOL BLANK**

Lab Sample ID: 240-20296-2TB Date Sampled: 01/23/2013 0000
Client Matrix: Solid Date Received: 01/25/2013 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-74309	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-73556	Lab File ID:	140620.D
Dilution:	1.0			Initial Weight/Volume:	10.00 g
Analysis Date:	02/05/2013 1330			Final Weight/Volume:	10 mL
Prep Date:	01/29/2013 1401				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		ND		170	1000
Allyl chloride		ND		53	500
Benzene		ND		12	250
Bromobenzene		ND		13	250
Bromochloromethane		ND		13	250
Bromodichloromethane		ND		9.9	250
Bromoform		ND		19	250
Bromomethane		ND		29	250
2-Butanone (MEK)		49	J	43	1000
Carbon disulfide		ND		12	250
Carbon tetrachloride		ND		6.4	250
Chlorobenzene		ND		6.4	250
Chlorodibromomethane		ND		12	250
Chloroethane		ND		61	250
Chloroform		ND		8.8	250
Chloromethane		ND		14	250
2-Chlorotoluene		ND		9.0	250
4-Chlorotoluene		ND		9.9	250
cis-1,2-Dichloroethene		ND		6.9	250
cis-1,3-Dichloropropene		ND		7.9	250
Cyclohexane		ND		40	500
1,2-Dibromo-3-Chloropropane		ND		50	500
1,2-Dibromoethane		ND		10	250
Dibromomethane		ND		14	250
1,2-Dichlorobenzene		ND		8.6	250
1,3-Dichlorobenzene		ND		4.8	250
1,4-Dichlorobenzene		ND		8.0	250
Dichlorodifluoromethane		ND		16	250
1,1-Dichloroethane		ND		17	250
1,2-Dichloroethane		ND		10	250
1,1-Dichloroethene		ND		18	250
Dichlorofluoromethane		ND		25	500
1,2-Dichloropropane		ND		8.2	250
1,3-Dichloropropane		ND		22	250
2,2-Dichloropropane		ND		23	250
1,1-Dichloropropene		ND		10	250
Ethylbenzene		ND		5.4	250
Ethyl ether		ND		15	500
Hexachlorobutadiene		ND		14	250
2-Hexanone		ND		20	1000
Isopropylbenzene		ND		6.5	250
Methyl acetate		ND		25	500
Methylcyclohexane		ND		12	500
Methylene Chloride		190	J B	77	250
4-Methyl-2-pentanone (MIBK)		ND		48	1000
Methyl tert butyl ether		ND		7.1	1000

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Client Sample ID: **METHANOL BLANK**

Lab Sample ID: 240-20296-2TB Date Sampled: 01/23/2013 0000
Client Matrix: Solid Date Received: 01/25/2013 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-74309	Instrument ID:	A3UX14
Prep Method:	5035	Prep Batch:	240-73556	Lab File ID:	140620.D
Dilution:	1.0			Initial Weight/Volume:	10.00 g
Analysis Date:	02/05/2013 1330			Final Weight/Volume:	10 mL
Prep Date:	01/29/2013 1401				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	MDL	RL
m-Xylene & p-Xylene		ND		6.2	500
Naphthalene		ND		6.7	250
n-Butylbenzene		ND		8.0	250
N-Propylbenzene		ND		14	250
o-Xylene		ND		8.5	250
p-Isopropyltoluene		ND		4.8	250
sec-Butylbenzene		ND		4.7	250
Styrene		ND		5.6	250
tert-Butylbenzene		ND		6.5	250
1,1,1,2-Tetrachloroethane		ND		9.1	250
1,1,2,2-Tetrachloroethane		ND		8.9	250
Tetrachloroethene		ND		12	250
Tetrahydrofuran		ND		49	1000
Toluene		ND		17	250
trans-1,2-Dichloroethene		ND		9.2	250
trans-1,3-Dichloropropene		ND		20	250
1,2,3-Trichlorobenzene		ND		10	250
1,2,4-Trichlorobenzene		ND		7.3	250
1,1,1-Trichloroethane		ND		21	250
1,1,2-Trichloroethane		ND		12	250
Trichloroethene		ND		9.7	250
Trichlorofluoromethane		ND		16	250
1,2,3-Trichloropropane		ND		21	250
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		39	250
1,2,4-Trimethylbenzene		ND		5.0	250
1,3,5-Trimethylbenzene		ND		5.8	250
Vinyl chloride		ND		18	250

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene (Surr)	129		26 - 141
Dibromofluoromethane (Surr)	107		30 - 122
1,2-Dichloroethane-d4 (Surr)	122		39 - 128
Toluene-d8 (Surr)	109		33 - 134

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Client Sample ID: **HA-PT3(1-2)(20130123)**

Lab Sample ID: 240-20296-1 Date Sampled: 01/23/2013 1352
Client Matrix: Solid % Moisture: 7.3 Date Received: 01/25/2013 0915

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	240-74289	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-73402	Lab File ID:	30205021.D
Dilution:	1.0			Initial Weight/Volume:	29.94 g
Analysis Date:	02/05/2013 1547			Final Weight/Volume:	2 mL
Prep Date:	01/28/2013 1106			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		ND		29	360
2,2'-oxybis[1-chloropropane]		ND		10	360
2,4,5-Trichlorophenol		ND		27	360
2,4,6-Trichlorophenol		ND		86	360
2,4-Dichlorophenol		ND		22	360
2,4-Dimethylphenol		ND		22	360
2,4-Dinitrophenol		ND		86	1700
2,4-Dinitrotoluene		ND		29	360
2,6-Dinitrotoluene		ND		23	360
2-Chloronaphthalene		ND		3.6	360
2-Chlorophenol		ND		29	360
2-Methylnaphthalene		7.6	J	3.6	360
2-Methylphenol		ND		86	360
2-Nitroaniline		ND		9.8	1700
2-Nitrophenol		ND		29	360
3,3'-Dichlorobenzidine		ND		19	1700
3-Nitroaniline		ND		17	1700
4,6-Dinitro-2-methylphenol		ND		86	1700
4-Bromophenyl phenyl ether		ND		14	360
4-Chloro-3-methylphenol		ND		23	360
4-Chloroaniline		ND		18	360
4-Chlorophenyl phenyl ether		ND		14	360
4-Nitroaniline		ND		28	1700
4-Nitrophenol		ND		86	1700
Acenaphthene		25	J	3.6	360
Acenaphthylene		33	J	3.6	360
Acetophenone		ND		9.9	360
Anthracene		67	J	3.6	360
Atrazine		ND	*	9.8	360
Benzaldehyde		ND		13	360
Benzo[a]anthracene		270	J	3.6	360
Benzo[a]pyrene		250	J	3.6	360
Benzo[b]fluoranthene		400		3.6	360
Benzo[g,h,i]perylene		140	J	3.6	360
Benzo[k]fluoranthene		120	J	3.6	360
Bis(2-chloroethoxy)methane		ND		24	360
Bis(2-chloroethyl)ether		ND		2.2	360
Bis(2-ethylhexyl) phthalate		70	J B	21	360
Butyl benzyl phthalate		ND		11	360
Caprolactam		ND		40	360
Carbazole		31	J	29	360
Chrysene		250	J	1.2	360
Dibenz(a,h)anthracene		48	J	3.6	360
Dibenzofuran		14	J	3.6	360
Diethyl phthalate		ND		17	360
Dimethyl phthalate		ND		18	360

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Client Sample ID: **HA-PT3(1-2)(20130123)**

Lab Sample ID: 240-20296-1 Date Sampled: 01/23/2013 1352
Client Matrix: Solid % Moisture: 7.3 Date Received: 01/25/2013 0915

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	240-74289	Instrument ID:	A4HP10
Prep Method:	3540C	Prep Batch:	240-73402	Lab File ID:	30205021.D
Dilution:	1.0			Initial Weight/Volume:	29.94 g
Analysis Date:	02/05/2013 1547			Final Weight/Volume:	2 mL
Prep Date:	01/28/2013 1106			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Di-n-butyl phthalate		ND		16	360
Di-n-octyl phthalate		ND		29	360
Fluoranthene		540		3.6	360
Fluorene		23	J	3.6	360
Hexachlorobenzene		ND		2.3	360
Hexachlorobutadiene		ND		29	360
Hexachlorocyclopentadiene		ND		29	1700
Hexachloroethane		ND		9.7	360
Indeno[1,2,3-cd]pyrene		120	J	3.6	360
Isophorone		ND		14	360
Naphthalene		9.0	J	3.6	360
Nitrobenzene		ND		2.4	360
N-Nitrosodi-n-propylamine		ND		29	360
N-Nitrosodiphenylamine		ND		23	360
Pentachlorophenol		ND		86	360
Phenol		ND		29	360
Phenanthrene		260	J	3.6	360
Pyrene		430		3.6	360
3 & 4 Methylphenol		ND		22	430

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	54		24 - 110
2-Fluorophenol (Surr)	57		24 - 110
2,4,6-Tribromophenol (Surr)	79		10 - 110
Nitrobenzene-d5 (Surr)	41		20 - 110
Phenol-d5 (Surr)	66		26 - 110
Terphenyl-d14 (Surr)	70		36 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Client Sample ID: **HA-PT3(1-2)(20130123)**

Lab Sample ID: 240-20296-1 Date Sampled: 01/23/2013 1352
Client Matrix: Solid % Moisture: 7.3 Date Received: 01/25/2013 0915

WI-GRO Wisconsin - Gasoline Range Organics (GC)

Analysis Method:	WI-GRO	Analysis Batch:	240-73628	Instrument ID:	YPID
Prep Method:	5035	Prep Batch:	240-73530	Lab File ID:	YF013028.D
Dilution:	1.0			Initial Weight/Volume:	10.176 g
Analysis Date:	01/31/2013 0343			Final Weight/Volume:	10 mL
Prep Date:	01/29/2013 1109			Injection Volume:	

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
WI Gasoline Range Organics (C6-C10)		ND		0.34	11

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Client Sample ID: **METHANOL BLANK**

Lab Sample ID: 240-20296-2TB Date Sampled: 01/23/2013 0000
Client Matrix: Solid Date Received: 01/25/2013 0915

WI-GRO Wisconsin - Gasoline Range Organics (GC)

Analysis Method:	WI-GRO	Analysis Batch:	240-73628	Instrument ID:	YPID
Prep Method:	5035	Prep Batch:	240-73530	Lab File ID:	YF013029.D
Dilution:	1.0			Initial Weight/Volume:	10.0 g
Analysis Date:	01/31/2013 0421			Final Weight/Volume:	10 mL
Prep Date:	01/29/2013 1109			Injection Volume:	

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
WI Gasoline Range Organics (C6-C10)		ND		0.32	10

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Client Sample ID: **HA-PT3(1-2)(20130123)**

Lab Sample ID: 240-20296-1 Date Sampled: 01/23/2013 1352
Client Matrix: Solid % Moisture: 7.3 Date Received: 01/25/2013 0915

8015B Diesel Range Organics (DRO) (GC)

Analysis Method:	8015B	Analysis Batch:	240-74438	Instrument ID:	A2HP5R
Prep Method:	3540C	Prep Batch:	240-74152	Initial Weight/Volume:	29.96 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	02/06/2013 1702			Injection Volume:	1 uL
Prep Date:	02/04/2013 1001			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Diesel Range Organics [C10 - C28]		24		10	18

Surrogate	%Rec	Qualifier	Acceptance Limits
n-Nonane	47		10 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Client Sample ID: **HA-PT3(1-2)(20130123)**

Lab Sample ID: 240-20296-1 Date Sampled: 01/23/2013 1352
Client Matrix: Solid % Moisture: 7.3 Date Received: 01/25/2013 0915

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	240-74091	Instrument ID:	I9
Prep Method:	3050B	Prep Batch:	240-73800	Lab File ID:	I9020113A.asc
Dilution:	1.0			Initial Weight/Volume:	1.03 g
Analysis Date:	02/01/2013 1129			Final Weight/Volume:	100 mL
Prep Date:	01/31/2013 1029				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Barium		44	B	0.074	21
Cadmium		0.13	J	0.038	0.21
Chromium		12		0.21	0.52
Silver		ND		0.10	0.52
Arsenic		3.1		0.31	1.0
Lead		13		0.20	0.31
Selenium		ND		0.47	0.52

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	240-74116	Instrument ID:	H4
Prep Method:	7471A	Prep Batch:	240-73816	Lab File ID:	020113A-HG4.PRN
Dilution:	1.0			Initial Weight/Volume:	0.57 g
Analysis Date:	02/01/2013 1601			Final Weight/Volume:	100 mL
Prep Date:	01/31/2013 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.050	J B *	0.017	0.11

General Chemistry

Client Sample ID: **HA-PT3(1-2)(20130123)**

Lab Sample ID: 240-20296-1 Date Sampled: 01/23/2013 1352

Client Matrix: Solid % Moisture: 7.3 Date Received: 01/25/2013 0915

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide, Total	ND		mg/Kg	0.10	0.52	1.0	9012A
Analysis Batch: 240-73440	Analysis Date: 01/28/2013 1704						DryWt Corrected: Y
Prep Batch: 240-73416	Prep Date: 01/28/2013 1340						
Percent Solids	93		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-73563	Analysis Date: 01/29/2013 1436						DryWt Corrected: N
Percent Moisture	7.3		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-73563	Analysis Date: 01/29/2013 1436						DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Lab Section	Qualifier	Description
GC/MS VOA		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	B	Compound was found in the blank and sample.
	*	LCS or LCSD exceeds the control limits
	F	MS or MSD 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.
Metals		
	B	Compound was found in the blank and sample.
	*	LCS or LCSD exceeds the control limits
	F	MS or MSD 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.
	F	RPD of the MS and MSD exceeds the control limits
General Chemistry		
	F	RPD of the MS and MSD exceeds the control limits

QUALITY CONTROL RESULTS

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 240-73556					
LCS 240-73556/2-A	Lab Control Sample	T	Solid	5035	
MB 240-73556/1-A	Method Blank	T	Solid	5035	
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	5035	
240-20296-2TB	METHANOL BLANK	T	Solid	5035	
Analysis Batch:240-74309					
LCS 240-73556/2-A	Lab Control Sample	T	Solid	8260B	240-73556
MB 240-73556/1-A	Method Blank	T	Solid	8260B	240-73556
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	8260B	240-73556
240-20296-2TB	METHANOL BLANK	T	Solid	8260B	240-73556

Report Basis
T = Total

GC/MS Semi VOA					
Prep Batch: 240-73402					
LCS 240-73402/6-A	Lab Control Sample	T	Solid	3540C	
MB 240-73402/5-A	Method Blank	T	Solid	3540C	
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	3540C	
240-20296-1MS	Matrix Spike	T	Solid	3540C	
240-20296-1MSD	Matrix Spike Duplicate	T	Solid	3540C	
Analysis Batch:240-74289					
LCS 240-73402/6-A	Lab Control Sample	T	Solid	8270C	240-73402
MB 240-73402/5-A	Method Blank	T	Solid	8270C	240-73402
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	8270C	240-73402
240-20296-1MS	Matrix Spike	T	Solid	8270C	240-73402
240-20296-1MSD	Matrix Spike Duplicate	T	Solid	8270C	240-73402

Report Basis
T = Total

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC VOA					
Prep Batch: 240-73530					
LCS 240-73530/2-A	Lab Control Sample	T	Solid	5035	
LCSD 240-73530/3-A	Lab Control Sample Duplicate	T	Solid	5035	
MB 240-73530/1-A	Method Blank	T	Solid	5035	
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	5035	
240-20296-2TB	METHANOL BLANK	T	Solid	5035	
Analysis Batch:240-73628					
LCS 240-73530/2-A	Lab Control Sample	T	Solid	WI-GRO	240-73530
LCSD 240-73530/3-A	Lab Control Sample Duplicate	T	Solid	WI-GRO	240-73530
MB 240-73530/1-A	Method Blank	T	Solid	WI-GRO	240-73530
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	WI-GRO	240-73530
240-20296-2TB	METHANOL BLANK	T	Solid	WI-GRO	240-73530

Report Basis
T = Total

GC Semi VOA					
Prep Batch: 240-74152					
LCS 240-74152/23-A	Lab Control Sample	T	Solid	3540C	
MB 240-74152/22-A	Method Blank	T	Solid	3540C	
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	3540C	
240-20296-1MS	Matrix Spike	T	Solid	3540C	
240-20296-1MSD	Matrix Spike Duplicate	T	Solid	3540C	
Analysis Batch:240-74285					
LCS 240-74152/23-A	Lab Control Sample	T	Solid	8015B	240-74152
MB 240-74152/22-A	Method Blank	T	Solid	8015B	240-74152
Analysis Batch:240-74438					
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	8015B	240-74152
240-20296-1MS	Matrix Spike	T	Solid	8015B	240-74152
240-20296-1MSD	Matrix Spike Duplicate	T	Solid	8015B	240-74152

Report Basis
T = Total

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 240-73800					
LCS 240-73800/2-A	Lab Control Sample	T	Solid	3050B	
MB 240-73800/1-A	Method Blank	T	Solid	3050B	
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	3050B	
240-20296-1MS	Matrix Spike	T	Solid	3050B	
240-20296-1MSD	Matrix Spike Duplicate	T	Solid	3050B	
Prep Batch: 240-73816					
LCS 240-73816/2-A	Lab Control Sample	T	Solid	7471A	
MB 240-73816/1-A	Method Blank	T	Solid	7471A	
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	7471A	
240-20296-1MS	Matrix Spike	T	Solid	7471A	
240-20296-1MSD	Matrix Spike Duplicate	T	Solid	7471A	
Analysis Batch:240-74091					
LCS 240-73800/2-A	Lab Control Sample	T	Solid	6010B	240-73800
MB 240-73800/1-A	Method Blank	T	Solid	6010B	240-73800
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	6010B	240-73800
240-20296-1MS	Matrix Spike	T	Solid	6010B	240-73800
240-20296-1MSD	Matrix Spike Duplicate	T	Solid	6010B	240-73800
Analysis Batch:240-74116					
LCS 240-73816/2-A	Lab Control Sample	T	Solid	7471A	240-73816
MB 240-73816/1-A	Method Blank	T	Solid	7471A	240-73816
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	7471A	240-73816
240-20296-1MS	Matrix Spike	T	Solid	7471A	240-73816
240-20296-1MSD	Matrix Spike Duplicate	T	Solid	7471A	240-73816

Report Basis
T = Total

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 240-73416					
LCS 240-73416/2-A	Lab Control Sample	T	Solid	9012A	
MB 240-73416/1-A	Method Blank	T	Solid	9012A	
240-20157-C-1-M MS	Matrix Spike	T	Solid	9012A	
240-20157-C-1-N MSD	Matrix Spike Duplicate	T	Solid	9012A	
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	9012A	
Analysis Batch:240-73440					
LCS 240-73416/2-A	Lab Control Sample	T	Solid	9012A	240-73416
MB 240-73416/1-A	Method Blank	T	Solid	9012A	240-73416
240-20157-C-1-M MS	Matrix Spike	T	Solid	9012A	240-73416
240-20157-C-1-N MSD	Matrix Spike Duplicate	T	Solid	9012A	240-73416
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	9012A	240-73416
Analysis Batch:240-73563					
240-20296-1	HA-PT3(1-2)(20130123)	T	Solid	Moisture	
240-20388-A-1 DU	Duplicate	T	Solid	Moisture	

Report Basis
T = Total

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	BFB %Rec	DBFM %Rec	DCA %Rec	TOL %Rec
240-20296-1	HA-PT3(1-2) (20130123)	128	101	115	106
240-20296-2	METHANOL BLANK	129	107	122	109
MB 240-73556/1-A		120	96	109	98
LCS 240-73556/2-A		117	99	108	98

Surrogate	Acceptance Limits
BFB = 4-Bromofluorobenzene (Surr)	26-141
DBFM = Dibromofluoromethane (Surr)	30-122
DCA = 1,2-Dichloroethane-d4 (Surr)	39-128
TOL = Toluene-d8 (Surr)	33-134

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Surrogate Recovery Report

8270C Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	FBP %Rec	2FP %Rec	TBP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec
240-20296-1	HA-PT3(1-2) (20130123)	54	57	79	41	66	70
MB 240-73402/5-A		61	72	64	61	80	81
LCS 240-73402/6-A		64	83	85	64	89	82
240-20296-1 MS	HA-PT3(1-2) (20130123) MS	52	64	65	49	69	61
240-20296-1 MSD	HA-PT3(1-2) (20130123) MSD	54	63	70	50	71	65

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl (Surr)	24-110
2FP = 2-Fluorophenol (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
PHL = Phenol-d5 (Surr)	26-110
TPH = Terphenyl-d14 (Surr)	36-110

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Surrogate Recovery Report

8015B Diesel Range Organics (DRO) (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	C91 %Rec
240-20296-1	HA-PT3(1-2) (20130123)	47
MB 240-74152/22-A		46
LCS 240-74152/23-A		46
240-20296-1 MS	HA-PT3(1-2) (20130123) MS	44
240-20296-1 MSD	HA-PT3(1-2) (20130123) MSD	46

Surrogate	Acceptance Limits
C9 = n-Nonane	10-110

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Method Blank - Batch: 240-73556 **Method: 8260B**
Preparation: 5035

Lab Sample ID:	MB 240-73556/1-A	Analysis Batch:	240-74309	Instrument ID:	A3UX14
Client Matrix:	Solid	Prep Batch:	240-73556	Lab File ID:	140619.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.00 g
Analysis Date:	02/05/2013 1309	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	01/29/2013 1401				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acetone	ND		170	1000
Allyl chloride	ND		53	500
Benzene	ND		12	250
Bromobenzene	ND		13	250
Bromochloromethane	ND		13	250
Bromodichloromethane	ND		9.9	250
Bromoform	ND		19	250
Bromomethane	ND		29	250
2-Butanone (MEK)	ND		43	1000
Carbon disulfide	ND		12	250
Carbon tetrachloride	ND		6.4	250
Chlorobenzene	ND		6.4	250
Chlorodibromomethane	ND		12	250
Chloroethane	ND		61	250
Chloroform	ND		8.8	250
Chloromethane	ND		14	250
2-Chlorotoluene	ND		9.0	250
4-Chlorotoluene	ND		9.9	250
cis-1,2-Dichloroethene	ND		6.9	250
cis-1,3-Dichloropropene	ND		7.9	250
Cyclohexane	ND		40	500
1,2-Dibromo-3-Chloropropane	ND		50	500
1,2-Dibromoethane	ND		10	250
Dibromomethane	ND		14	250
1,2-Dichlorobenzene	ND		8.6	250
1,3-Dichlorobenzene	4.99	J	4.8	250
1,4-Dichlorobenzene	ND		8.0	250
Dichlorodifluoromethane	ND		16	250
1,1-Dichloroethane	ND		17	250
1,2-Dichloroethane	ND		10	250
1,1-Dichloroethene	ND		18	250
Dichlorofluoromethane	ND		25	500
1,2-Dichloropropane	ND		8.2	250
1,3-Dichloropropane	ND		22	250
2,2-Dichloropropane	ND		23	250
1,1-Dichloropropene	ND		10	250
Ethylbenzene	6.63	J	5.4	250
Ethyl ether	ND		15	500
Hexachlorobutadiene	ND		14	250
2-Hexanone	ND		20	1000
Isopropylbenzene	ND		6.5	250
Methyl acetate	ND		25	500
Methylcyclohexane	ND		12	500
Methylene Chloride	234	J	77	250
4-Methyl-2-pentanone (MIBK)	ND		48	1000

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Method Blank - Batch: 240-73556 **Method: 8260B**
Preparation: 5035

Lab Sample ID:	MB 240-73556/1-A	Analysis Batch:	240-74309	Instrument ID:	A3UX14
Client Matrix:	Solid	Prep Batch:	240-73556	Lab File ID:	140619.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.00 g
Analysis Date:	02/05/2013 1309	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	01/29/2013 1401				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Methyl tert butyl ether	ND		7.1	1000
m-Xylene & p-Xylene	18.2	J	6.2	500
Naphthalene	ND		6.7	250
n-Butylbenzene	ND		8.0	250
N-Propylbenzene	ND		14	250
o-Xylene	ND		8.5	250
p-Isopropyltoluene	ND		4.8	250
sec-Butylbenzene	ND		4.7	250
Styrene	ND		5.6	250
tert-Butylbenzene	ND		6.5	250
1,1,1,2-Tetrachloroethane	ND		9.1	250
1,1,2,2-Tetrachloroethane	ND		8.9	250
Tetrachloroethene	ND		12	250
Tetrahydrofuran	ND		49	1000
Toluene	21.8	J	17	250
trans-1,2-Dichloroethene	ND		9.2	250
trans-1,3-Dichloropropene	ND		20	250
1,2,3-Trichlorobenzene	ND		10	250
1,2,4-Trichlorobenzene	ND		7.3	250
1,1,1-Trichloroethane	ND		21	250
1,1,2-Trichloroethane	ND		12	250
Trichloroethene	ND		9.7	250
Trichlorofluoromethane	ND		16	250
1,2,3-Trichloropropane	ND		21	250
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		39	250
1,2,4-Trimethylbenzene	8.29	J	5.0	250
1,3,5-Trimethylbenzene	ND		5.8	250
Vinyl chloride	ND		18	250

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	120	26 - 141
Dibromofluoromethane (Surr)	96	30 - 122
1,2-Dichloroethane-d4 (Surr)	109	39 - 128
Toluene-d8 (Surr)	98	33 - 134

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Lab Control Sample - Batch: 240-73556 **Method: 8260B**
Preparation: 5035

Lab Sample ID:	LCS 240-73556/2-A	Analysis Batch:	240-74309	Instrument ID:	A3UX14
Client Matrix:	Solid	Prep Batch:	240-73556	Lab File ID:	140618.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.00 g
Analysis Date:	02/05/2013 1247	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	01/29/2013 1401				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	1000	875	87	16 - 156	J
Benzene	500	470	94	70 - 117	
Bromobenzene	500	516	103	72 - 120	
Bromochloromethane	500	448	90	56 - 128	
Bromodichloromethane	500	387	77	28 - 123	
Bromoform	500	432	86	10 - 117	
Bromomethane	500	423	85	10 - 114	
2-Butanone (MEK)	1000	955	95	10 - 199	J
Carbon disulfide	500	262	52	10 - 132	
Carbon tetrachloride	500	378	76	29 - 118	
Chlorobenzene	500	466	93	71 - 116	
Chlorodibromomethane	500	427	85	22 - 113	
Chloroethane	500	416	83	10 - 120	
Chloroform	500	453	91	63 - 116	
Chloromethane	500	361	72	25 - 110	
2-Chlorotoluene	500	518	104	68 - 122	
4-Chlorotoluene	500	499	100	68 - 122	
cis-1,2-Dichloroethene	500	450	90	60 - 125	
cis-1,3-Dichloropropene	500	378	76	25 - 120	
Cyclohexane	500	442	88	40 - 120	J
1,2-Dibromo-3-Chloropropane	500	352	70	10 - 129	J
1,2-Dibromoethane	500	458	92	47 - 123	
Dibromomethane	500	491	98	68 - 118	
1,2-Dichlorobenzene	500	477	95	68 - 118	
1,3-Dichlorobenzene	500	476	95	66 - 121	
1,4-Dichlorobenzene	500	474	95	65 - 119	
Dichlorodifluoromethane	500	256	51	10 - 110	
1,1-Dichloroethane	500	470	94	63 - 117	
1,2-Dichloroethane	500	474	95	68 - 119	
1,1-Dichloroethene	500	445	89	44 - 143	
1,2-Dichloropropane	500	473	95	73 - 113	
1,3-Dichloropropane	500	486	97	74 - 119	
2,2-Dichloropropane	500	363	73	25 - 123	
1,1-Dichloropropene	500	468	94	60 - 123	
Ethylbenzene	500	490	98	66 - 119	
Ethyl ether	500	470	94	70 - 130	J
Hexachlorobutadiene	500	520	104	34 - 135	
2-Hexanone	1000	854	85	43 - 130	J
Isopropylbenzene	500	499	100	61 - 123	
Methyl acetate	500	550	110	44 - 173	
Methylcyclohexane	500	474	95	41 - 133	J

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Lab Control Sample - Batch: 240-73556

Method: 8260B
Preparation: 5035

Lab Sample ID:	LCS 240-73556/2-A	Analysis Batch:	240-74309	Instrument ID:	A3UX14
Client Matrix:	Solid	Prep Batch:	240-73556	Lab File ID:	140618.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.00 g
Analysis Date:	02/05/2013 1247	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	01/29/2013 1401				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Methylene Chloride	500	647	129	27 - 172	
4-Methyl-2-pentanone (MIBK)	1000	862	86	49 - 121	J
Methyl tert butyl ether	500	451	90	34 - 157	J
m-Xylene & p-Xylene	1000	993	99	67 - 118	
Naphthalene	500	481	96	37 - 126	
n-Butylbenzene	500	491	98	51 - 137	
N-Propylbenzene	500	544	109	64 - 130	
o-Xylene	500	492	98	68 - 120	
p-Isopropyltoluene	500	517	103	56 - 136	
sec-Butylbenzene	500	530	106	58 - 131	
Styrene	500	454	91	60 - 120	
tert-Butylbenzene	500	510	102	58 - 128	
1,1,1,2-Tetrachloroethane	500	416	83	27 - 121	
1,1,2,2-Tetrachloroethane	500	505	101	54 - 121	
Tetrachloroethene	500	487	97	58 - 131	
Tetrahydrofuran	500	474	95	70 - 130	J
Toluene	500	520	104	66 - 123	
trans-1,2-Dichloroethene	500	457	91	58 - 121	
trans-1,3-Dichloropropene	500	424	85	22 - 122	
1,2,3-Trichlorobenzene	500	468	94	43 - 129	
1,2,4-Trichlorobenzene	500	497	99	41 - 135	
1,1,1-Trichloroethane	500	411	82	38 - 122	
1,1,2-Trichloroethane	500	488	98	74 - 114	
Trichloroethene	500	477	95	59 - 124	
Trichlorofluoromethane	500	399	80	17 - 145	
1,2,3-Trichloropropane	500	541	108	74 - 124	
1,1,2-Trichloro-1,2,2-trifluoroethane	500	462	92	48 - 151	
1,2,4-Trimethylbenzene	500	508	102	62 - 133	
1,3,5-Trimethylbenzene	500	498	100	60 - 130	
Vinyl chloride	500	366	73	33 - 110	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	117	26 - 141
Dibromofluoromethane (Surr)	99	30 - 122
1,2-Dichloroethane-d4 (Surr)	108	39 - 128
Toluene-d8 (Surr)	98	33 - 134

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Method Blank - Batch: 240-73402

Method: 8270C
Preparation: 3540C

Lab Sample ID:	MB 240-73402/5-A	Analysis Batch:	240-74289	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-73402	Lab File ID:	30205007.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	02/05/2013 1154	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	01/28/2013 1106			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1'-Biphenyl	ND		27	330
2,2'-oxybis[1-chloropropane]	ND		9.5	330
2,4,5-Trichlorophenol	ND		25	330
2,4,6-Trichlorophenol	ND		80	330
2,4-Dichlorophenol	ND		20	330
2,4-Dimethylphenol	ND		20	330
2,4-Dinitrophenol	ND		80	1600
2,4-Dinitrotoluene	ND		27	330
2,6-Dinitrotoluene	ND		21	330
2-Chloronaphthalene	ND		3.3	330
2-Chlorophenol	ND		27	330
2-Methylnaphthalene	ND		3.3	330
2-Methylphenol	ND		80	330
2-Nitroaniline	ND		9.1	1600
2-Nitrophenol	ND		27	330
3,3'-Dichlorobenzidine	ND		18	1600
3-Nitroaniline	ND		16	1600
4,6-Dinitro-2-methylphenol	ND		80	1600
4-Bromophenyl phenyl ether	ND		13	330
4-Chloro-3-methylphenol	ND		21	330
4-Chloroaniline	ND		17	330
4-Chlorophenyl phenyl ether	ND		13	330
4-Nitroaniline	ND		26	1600
4-Nitrophenol	ND		80	1600
Acenaphthene	ND		3.3	330
Acenaphthylene	ND		3.3	330
Acetophenone	ND		9.2	330
Anthracene	ND		3.3	330
Atrazine	ND		9.1	330
Benzaldehyde	ND		12	330
Benzo[a]anthracene	ND		3.3	330
Benzo[a]pyrene	ND		3.3	330
Benzo[b]fluoranthene	ND		3.3	330
Benzo[g,h,i]perylene	ND		3.3	330
Benzo[k]fluoranthene	ND		3.3	330
Bis(2-chloroethoxy)methane	ND		22	330
Bis(2-chloroethyl)ether	ND		2.0	330
Bis(2-ethylhexyl) phthalate	28.2	J	19	330
Butyl benzyl phthalate	ND		10	330
Caprolactam	ND		37	330
Carbazole	ND		27	330
Chrysene	ND		1.1	330
Dibenz(a,h)anthracene	ND		3.3	330
Dibenzofuran	ND		3.3	330
Diethyl phthalate	ND		16	330

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Method Blank - Batch: 240-73402

Method: 8270C
Preparation: 3540C

Lab Sample ID:	MB 240-73402/5-A	Analysis Batch:	240-74289	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-73402	Lab File ID:	30205007.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	02/05/2013 1154	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	01/28/2013 1106			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Dimethyl phthalate	ND		17	330
Di-n-butyl phthalate	ND		15	330
Di-n-octyl phthalate	ND		27	330
Fluoranthene	ND		3.3	330
Fluorene	ND		3.3	330
Hexachlorobenzene	ND		2.1	330
Hexachlorobutadiene	ND		27	330
Hexachlorocyclopentadiene	ND		27	1600
Hexachloroethane	ND		9.0	330
Indeno[1,2,3-cd]pyrene	ND		3.3	330
Isophorone	ND		13	330
Naphthalene	ND		3.3	330
Nitrobenzene	ND		2.2	330
N-Nitrosodi-n-propylamine	ND		27	330
N-Nitrosodiphenylamine	ND		21	330
Pentachlorophenol	ND		80	330
Phenol	ND		27	330
Phenanthrene	ND		3.3	330
Pyrene	ND		3.3	330
3 & 4 Methylphenol	ND		20	400

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	61	24 - 110
2-Fluorophenol (Surr)	72	24 - 110
2,4,6-Tribromophenol (Surr)	64	10 - 110
Nitrobenzene-d5 (Surr)	61	20 - 110
Phenol-d5 (Surr)	80	26 - 110
Terphenyl-d14 (Surr)	81	36 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Lab Control Sample - Batch: 240-73402

Method: 8270C
Preparation: 3540C

Lab Sample ID:	LCS 240-73402/6-A	Analysis Batch:	240-74289	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-73402	Lab File ID:	30205008.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	02/05/2013 1217	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	01/28/2013 1106			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1'-Biphenyl	667	509	76	35 - 110	
2,2'-oxybis[1-chloropropane]	667	429	64	29 - 110	
2,4,5-Trichlorophenol	667	618	93	25 - 110	
2,4,6-Trichlorophenol	667	609	91	12 - 110	
2,4-Dichlorophenol	667	603	91	39 - 110	
2,4-Dimethylphenol	667	400	60	29 - 110	
2,4-Dinitrophenol	667	450	68	10 - 110	J
2,4-Dinitrotoluene	667	595	89	48 - 110	
2,6-Dinitrotoluene	667	530	79	45 - 110	
2-Chloronaphthalene	667	430	64	32 - 110	
2-Chlorophenol	667	607	91	37 - 110	
2-Methylnaphthalene	667	572	86	36 - 110	
2-Methylphenol	667	575	86	41 - 110	
2-Nitroaniline	667	552	83	45 - 110	J
2-Nitrophenol	667	535	80	34 - 110	
3,3'-Dichlorobenzidine	667	416	62	28 - 110	J
3-Nitroaniline	667	522	78	44 - 110	J
4,6-Dinitro-2-methylphenol	667	516	77	10 - 110	J
4-Bromophenyl phenyl ether	667	528	79	39 - 110	
4-Chloro-3-methylphenol	667	607	91	48 - 110	
4-Chloroaniline	667	460	69	30 - 110	
4-Chlorophenyl phenyl ether	667	473	71	40 - 110	
4-Nitroaniline	667	636	95	48 - 110	J
4-Nitrophenol	667	578	87	28 - 110	J
Acenaphthene	667	517	78	38 - 110	
Acenaphthylene	667	564	85	40 - 110	
Acetophenone	667	541	81	40 - 110	
Anthracene	667	621	93	48 - 110	
Atrazine	667	865	130	66 - 127	*
Benzaldehyde	667	469	70	32 - 110	
Benzo[a]anthracene	667	616	92	50 - 110	
Benzo[a]pyrene	667	553	83	44 - 110	
Benzo[b]fluoranthene	667	627	94	43 - 110	
Benzo[g,h,i]perylene	667	637	96	51 - 110	
Benzo[k]fluoranthene	667	612	92	38 - 105	
Bis(2-chloroethoxy)methane	667	433	65	32 - 110	
Bis(2-chloroethyl)ether	667	444	67	34 - 110	
Bis(2-ethylhexyl) phthalate	667	601	90	50 - 110	
Butyl benzyl phthalate	667	589	88	51 - 110	
Caprolactam	667	546	82	44 - 114	
Carbazole	667	621	93	50 - 110	

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Lab Control Sample - Batch: 240-73402

Method: 8270C
Preparation: 3540C

Lab Sample ID:	LCS 240-73402/6-A	Analysis Batch:	240-74289	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-73402	Lab File ID:	30205008.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	02/05/2013 1217	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	01/28/2013 1106			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chrysene	667	623	93	50 - 110	
Dibenz(a,h)anthracene	667	582	87	51 - 110	
Dibenzofuran	667	558	84	43 - 110	
Diethyl phthalate	667	596	89	52 - 110	
Dimethyl phthalate	667	586	88	50 - 110	
Di-n-butyl phthalate	667	638	96	51 - 110	
Di-n-octyl phthalate	667	560	84	48 - 110	
Fluoranthene	667	708	106	51 - 110	
Fluorene	667	560	84	46 - 110	
Hexachlorobenzene	667	489	73	43 - 110	
Hexachlorobutadiene	667	443	66	29 - 110	
Hexachlorocyclopentadiene	667	392	59	12 - 110	J
Hexachloroethane	667	478	72	30 - 110	
Indeno[1,2,3-cd]pyrene	667	584	88	50 - 110	
Isophorone	667	520	78	36 - 110	
Naphthalene	667	534	80	36 - 110	
Nitrobenzene	667	431	65	32 - 110	
N-Nitrosodi-n-propylamine	667	545	82	38 - 110	
N-Nitrosodiphenylamine	667	620	93	46 - 110	
Pentachlorophenol	667	453	68	10 - 110	
Phenol	667	594	89	38 - 110	
Phenanthrene	667	611	92	49 - 110	
Pyrene	667	654	98	49 - 110	
3 & 4 Methylphenol	1330	1200	90	40 - 110	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	64	24 - 110
2-Fluorophenol (Surr)	83	24 - 110
2,4,6-Tribromophenol (Surr)	85	10 - 110
Nitrobenzene-d5 (Surr)	64	20 - 110
Phenol-d5 (Surr)	89	26 - 110
Terphenyl-d14 (Surr)	82	36 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-73402

Method: 8270C
Preparation: 3540C

MS Lab Sample ID:	240-20296-1	Analysis Batch:	240-74289	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-73402	Lab File ID:	30205022.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.03 g
Analysis Date:	02/05/2013 1610			Final Weight/Volume:	2 mL
Prep Date:	01/28/2013 1106			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	240-20296-1	Analysis Batch:	240-74289	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-73402	Lab File ID:	30205023.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.92 g
Analysis Date:	02/05/2013 1634			Final Weight/Volume:	2 mL
Prep Date:	01/28/2013 1106			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
1,1'-Biphenyl	63	66	32 - 110	4	32		
2,2'-oxybis[1-chloropropane]	45	45	11 - 110	1	42	J	J
2,4,5-Trichlorophenol	75	78	10 - 117	4	99		
2,4,6-Trichlorophenol	75	76	10 - 110	2	38		
2,4-Dichlorophenol	75	78	10 - 110	4	34		
2,4-Dimethylphenol	71	73	10 - 110	4	31		
2,4-Dinitrophenol	28	21	10 - 110	28	99	J	J
2,4-Dinitrotoluene	56	56	32 - 110	0	30		
2,6-Dinitrotoluene	58	59	35 - 110	3	30		
2-Chloronaphthalene	52	54	28 - 110	5	30		
2-Chlorophenol	67	66	10 - 110	1	47		
2-Methylnaphthalene	78	98	10 - 133	23	42		
2-Methylphenol	72	72	24 - 110	1	51		
2-Nitroaniline	73	77	39 - 110	6	31	J	J
2-Nitrophenol	60	60	10 - 110	1	49		
3,3'-Dichlorobenzidine	9	11	10 - 110	19	56	J F	J
3-Nitroaniline	47	54	10 - 110	13	30	J	J
4,6-Dinitro-2-methylphenol	24	16	10 - 110	42	55	J	J
4-Bromophenyl phenyl ether	57	61	33 - 110	7	30		
4-Chloro-3-methylphenol	78	77	25 - 110	1	54		
4-Chloroaniline	35	44	10 - 110	25	36	J	J
4-Chlorophenyl phenyl ether	59	60	32 - 110	3	30		
4-Nitroaniline	60	69	10 - 110	14	48	J	J
4-Nitrophenol	71	73	10 - 113	3	49	J	J
Acenaphthene	64	65	22 - 110	3	99		
Acenaphthylene	71	77	24 - 110	8	99		
Acetophenone	60	62	31 - 110	2	43		
Anthracene	73	74	20 - 110	2	99		
Atrazine	98	96	45 - 118	2	30		
Benzaldehyde	46	46	23 - 110	1	42	J	J
Benzo[a]anthracene	67	75	10 - 122	8	99		
Benzo[a]pyrene	58	71	10 - 110	12	99		

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-73402

Method: 8270C
Preparation: 3540C

MS Lab Sample ID:	240-20296-1	Analysis Batch:	240-74289	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-73402	Lab File ID:	30205022.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.03 g
Analysis Date:	02/05/2013 1610			Final Weight/Volume:	2 mL
Prep Date:	01/28/2013 1106			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	240-20296-1	Analysis Batch:	240-74289	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-73402	Lab File ID:	30205023.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.92 g
Analysis Date:	02/05/2013 1634			Final Weight/Volume:	2 mL
Prep Date:	01/28/2013 1106			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzo[b]fluoranthene	63	87	12 - 118	18	99		
Benzo[g,h,i]perylene	43	41	10 - 117	4	99		
Benzo[k]fluoranthene	73	102	10 - 121	28	99		
Bis(2-chloroethoxy)methane	49	50	26 - 110	2	37	J	
Bis(2-chloroethyl)ether	45	45	21 - 110	1	55	J	J
Bis(2-ethylhexyl) phthalate	62	66	40 - 110	6	30		
Butyl benzyl phthalate	73	78	44 - 110	7	30		
Caprolactam	69	73	10 - 134	6	32		
Carbazole	67	70	34 - 110	5	30		
Chrysene	73	81	10 - 125	8	99		
Dibenz(a,h)anthracene	45	44	14 - 113	1	99		
Dibenzofuran	70	76	29 - 110	7	30		
Diethyl phthalate	71	71	42 - 110	2	30		
Dimethyl phthalate	69	71	41 - 110	3	30		
Di-n-butyl phthalate	76	77	43 - 110	1	30		
Di-n-octyl phthalate	82	107	24 - 119	27	30		
Fluoranthene	74	90	10 - 110	10	99		
Fluorene	71	71	23 - 110	1	99		
Hexachlorobenzene	57	60	34 - 110	5	30		
Hexachlorobutadiene	49	50	25 - 110	3	34	J	J
Hexachlorocyclopentadiene	4	0	10 - 110	NC	79	J F	F
Hexachloroethane	40	37	12 - 110	7	50	J	J
Indeno[1,2,3-cd]pyrene	44	41	10 - 114	4	99		
Isophorone	59	61	29 - 110	4	38		
Naphthalene	67	82	10 - 111	21	99		
Nitrobenzene	48	49	23 - 110	2	41	J	J
N-Nitrosodi-n-propylamine	60	59	26 - 110	1	42		
N-Nitrosodiphenylamine	74	76	22 - 110	3	30		
Pentachlorophenol	54	55	10 - 110	2	50		
Phenol	69	70	17 - 110	2	53		
Phenanthrene	67	79	10 - 166	11	99		
Pyrene	70	90	10 - 147	15	99		

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-73402

Method: 8270C
Preparation: 3540C

MS Lab Sample ID:	240-20296-1	Analysis Batch:	240-74289	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-73402	Lab File ID:	30205022.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.03 g
Analysis Date:	02/05/2013 1610			Final Weight/Volume:	2 mL
Prep Date:	01/28/2013 1106			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	240-20296-1	Analysis Batch:	240-74289	Instrument ID:	A4HP10
Client Matrix:	Solid	Prep Batch:	240-73402	Lab File ID:	30205023.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.92 g
Analysis Date:	02/05/2013 1634			Final Weight/Volume:	2 mL
Prep Date:	01/28/2013 1106			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
3 & 4 Methylphenol	71	73	25 - 110	3	50		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	52	54	24 - 110
2-Fluorophenol (Surr)	64	63	24 - 110
2,4,6-Tribromophenol (Surr)	65	70	10 - 110
Nitrobenzene-d5 (Surr)	49	50	20 - 110
Phenol-d5 (Surr)	69	71	26 - 110
Terphenyl-d14 (Surr)	61	65	36 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Method Blank - Batch: 240-73530

Method: WI-GRO
Preparation: 5035

Lab Sample ID:	MB 240-73530/1-A	Analysis Batch:	240-73628	Instrument ID:	YPID
Client Matrix:	Solid	Prep Batch:	240-73530	Lab File ID:	YF013026.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.0 g
Analysis Date:	01/31/2013 0228	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	01/29/2013 1109			Injection Volume:	
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
WI Gasoline Range Organics (C6-C10)	ND		0.32	10

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 240-73530

Method: WI-GRO
Preparation: 5035

LCS Lab Sample ID:	LCS 240-73530/2-A	Analysis Batch:	240-73628	Instrument ID:	YPID
Client Matrix:	Solid	Prep Batch:	240-73530	Lab File ID:	YF013027.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.0 g
Analysis Date:	01/31/2013 0306	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	01/29/2013 1109			Injection Volume:	
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 240-73530/3-A	Analysis Batch:	240-73628	Instrument ID:	YPID
Client Matrix:	Solid	Prep Batch:	240-73530	Lab File ID:	YF013030.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.0 g
Analysis Date:	01/31/2013 0458	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	01/29/2013 1109			Injection Volume:	
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
WI Gasoline Range Organics (C6-C10)	95	96	80 - 120	1	20		

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Method Blank - Batch: 240-74152

Method: 8015B
Preparation: 3540C

Lab Sample ID:	MB 240-74152/22-A	Analysis Batch:	240-74285	Instrument ID:	A2HP5R
Client Matrix:	Solid	Prep Batch:	240-74152	Lab File ID:	P5B05011.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	02/05/2013 1545	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	02/04/2013 1001			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Diesel Range Organics [C10 - C28]	ND		9.3	17

Surrogate	% Rec	Acceptance Limits
n-Nonane	46	10 - 110

Lab Control Sample - Batch: 240-74152

Method: 8015B
Preparation: 3540C

Lab Sample ID:	LCS 240-74152/23-A	Analysis Batch:	240-74285	Instrument ID:	A2HP5R
Client Matrix:	Solid	Prep Batch:	240-74152	Lab File ID:	P5B05010.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	02/05/2013 1515	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	02/04/2013 1001			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Diesel Range Organics [C10 - C28]	83.3	65.0	78	47 - 138	

Surrogate	% Rec	Acceptance Limits
n-Nonane	46	10 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-74152

Method: 8015B
Preparation: 3540C

MS Lab Sample ID:	240-20296-1	Analysis Batch:	240-74438	Instrument ID:	A2HP5R
Client Matrix:	Solid	Prep Batch:	240-74152	Lab File ID:	P5B06016.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.76 g
Analysis Date:	02/06/2013 1732			Final Weight/Volume:	5 mL
Prep Date:	02/04/2013 1001			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	240-20296-1	Analysis Batch:	240-74438	Instrument ID:	A2HP5R
Client Matrix:	Solid	Prep Batch:	240-74152	Lab File ID:	P5B06017.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.84 g
Analysis Date:	02/06/2013 1802			Final Weight/Volume:	5 mL
Prep Date:	02/04/2013 1001			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Diesel Range Organics [C10 - C28]	73	98	10 - 199	22	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
n-Nonane	44	46	10 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Method Blank - Batch: 240-73800

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 240-73800/1-A	Analysis Batch:	240-74091	Instrument ID:	I9
Client Matrix:	Solid	Prep Batch:	240-73800	Lab File ID:	I9020113A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	02/01/2013 1121	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/31/2013 1029				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Barium	0.102	J	0.071	20
Cadmium	ND		0.036	0.20
Chromium	ND		0.20	0.50
Silver	ND		0.10	0.50
Arsenic	ND		0.30	1.0
Lead	ND		0.19	0.30
Selenium	ND		0.45	0.50

Lab Control Sample - Batch: 240-73800

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 240-73800/2-A	Analysis Batch:	240-74091	Instrument ID:	I9
Client Matrix:	Solid	Prep Batch:	240-73800	Lab File ID:	I9020113A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	02/01/2013 1125	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/31/2013 1029				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Barium	200	192	96	80 - 120	
Cadmium	5.00	4.99	100	80 - 120	
Chromium	20.0	19.1	95	80 - 120	
Silver	5.00	4.98	100	80 - 120	
Arsenic	200	193	96	80 - 120	
Lead	50.0	46.7	93	80 - 120	
Selenium	200	199	100	80 - 120	

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-73800

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	240-20296-1	Analysis Batch:	240-74091	Instrument ID:	I9
Client Matrix:	Solid	Prep Batch:	240-73800	Lab File ID:	I9020113A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.06 g
Analysis Date:	02/01/2013 1137			Final Weight/Volume:	100 mL
Prep Date:	01/31/2013 1029				
Leach Date:	N/A				

MSD Lab Sample ID:	240-20296-1	Analysis Batch:	240-74091	Instrument ID:	I9
Client Matrix:	Solid	Prep Batch:	240-73800	Lab File ID:	I9020113A.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.06 g
Analysis Date:	02/01/2013 1141			Final Weight/Volume:	100 mL
Prep Date:	01/31/2013 1029				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Barium	91	86	75 - 125	4	20		
Cadmium	91	87	75 - 125	4	20		
Chromium	97	102	75 - 125	3	20		
Silver	91	87	75 - 125	5	20		
Arsenic	87	83	75 - 125	4	20		
Lead	73	70	75 - 125	3	20	F	F
Selenium	88	84	75 - 125	4	20		

Method Blank - Batch: 240-73816 **Method: 7471A**
Preparation: 7471A

Lab Sample ID:	MB 240-73816/1-A	Analysis Batch:	240-74116	Instrument ID:	H4
Client Matrix:	Solid	Prep Batch:	240-73816	Lab File ID:	020113A-HG4.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	02/01/2013 1557	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/31/2013 1400				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0760	J	0.015	0.10

Lab Control Sample - Batch: 240-73816 **Method: 7471A**
Preparation: 7471A

Lab Sample ID:	LCS 240-73816/2-A	Analysis Batch:	240-74116	Instrument ID:	H4
Client Matrix:	Solid	Prep Batch:	240-73816	Lab File ID:	020113A-HG4.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	02/01/2013 1559	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/31/2013 1400				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.833	1.05	126	73 - 121	*

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-73816 **Method: 7471A**
Preparation: 7471A

MS Lab Sample ID:	240-20296-1	Analysis Batch:	240-74116	Instrument ID:	H4
Client Matrix:	Solid	Prep Batch:	240-73816	Lab File ID:	020113A-HG4.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.56 g
Analysis Date:	02/01/2013 1603			Final Weight/Volume:	100 mL
Prep Date:	01/31/2013 1400				
Leach Date:	N/A				

MSD Lab Sample ID:	240-20296-1	Analysis Batch:	240-74116	Instrument ID:	H4
Client Matrix:	Solid	Prep Batch:	240-73816	Lab File ID:	020113A-HG4.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.56 g
Analysis Date:	02/01/2013 1606			Final Weight/Volume:	100 mL
Prep Date:	01/31/2013 1400				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	166	128	11 - 192	22	20		F

Method Blank - Batch: 240-73416

Method: 9012A
Preparation: 9012A

Lab Sample ID:	MB 240-73416/1-A	Analysis Batch:	240-73440	Instrument ID:	SAURON
Client Matrix:	Solid	Prep Batch:	240-73416	Lab File ID:	012813cnB.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.04 g
Analysis Date:	01/28/2013 1704	Units:	mg/Kg	Final Weight/Volume:	25 mL
Prep Date:	01/28/2013 1340				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Cyanide, Total	ND		0.096	0.48

Lab Control Sample - Batch: 240-73416

Method: 9012A
Preparation: 9012A

Lab Sample ID:	LCS 240-73416/2-A	Analysis Batch:	240-73440	Instrument ID:	SAURON
Client Matrix:	Solid	Prep Batch:	240-73416	Lab File ID:	012813cnB.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.98 g
Analysis Date:	01/28/2013 1704	Units:	mg/Kg	Final Weight/Volume:	25 mL
Prep Date:	01/28/2013 1340				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	2.54	1.91	75	68 - 123	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-73416

Method: 9012A
Preparation: 9012A

MS Lab Sample ID:	240-20157-C-1-M MS	Analysis Batch:	240-73440	Instrument ID:	SAURON
Client Matrix:	Solid	Prep Batch:	240-73416	Lab File ID:	012813cnB.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.98 g
Analysis Date:	01/28/2013 1704			Final Weight/Volume:	25 mL
Prep Date:	01/28/2013 1340				
Leach Date:	N/A				

MSD Lab Sample ID:	240-20157-C-1-N MSD	Analysis Batch:	240-73440	Instrument ID:	SAURON
Client Matrix:	Solid	Prep Batch:	240-73416	Lab File ID:	012813cnB.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.97 g
Analysis Date:	01/28/2013 1705			Final Weight/Volume:	25 mL
Prep Date:	01/28/2013 1340				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Cyanide, Total	94	117	50 - 134	23	20		F

Client: ARCADIS U.S., Inc. Job Number: 240-20296-1

Duplicate - Batch: 240-73563

Method: Moisture
Preparation: N/A

Lab Sample ID:	240-20388-A-1 DU	Analysis Batch:	240-73563	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/29/2013 1436	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	92	93	0.6	20	
Percent Moisture	8.0	7.4	8	20	

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: North Canton, OH

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ARCADIS	Client Project Manager: Angharad Pagnon	Site Contact: Rob Ellis	Lab Contact: Denise Pohl	COC No: 023305
Address: 430 First Ave N, Ste 720	Telephone: 612-339-9434	Telephone: 284-994-2240	Telephone: 330-966-9789	1 of 1 COCs
City/State/Zip: Minneapolis, MN 55401	Email: angharad.pagnon@arcadis-us.com	Analysis Turnaround Time (in BUS days)	Analyses	
Phone: 612-339-9434		TAT if different from below ____		
Project Name: Ford TCAP	Method of Shipment/Carrier: Carrier	☐ 3 weeks ☒ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Number: DE000440.0001	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other: MeOH	Filtered Sample (Y/N)	Composite (C) or Grab (G)	VOCs (8260)	SVOCs (8270C)	RCRA Metals (6010B)	DRO (WI Method)	GRO (WI Method)	Cyanide	Lead (6010B)			Temperature	Sample Specific Notes / Special Instructions:
HA-PT3(1-2) (20130123)	1/23/13	1352				X							5	4	N	G	X	X	X	X	X	X	X			X	
Methanol Blank	1/23/13	—		X										2			X				X						
Temperature	—	—																								1	

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	ARCADIS	1/24/2013 1030		TAmeria	1-24-13 10:30
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAmeria	1-24-13 1800		TAC	1/25/13 915
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TAL 0018- 1 (04/10)

02/08/2013

TestAmerica Canton Sample Receipt Form/Narrative Login # : 20296

Client ARCADIS Site Name _____ By: _____ (Signature)

Cooler Received on 1-25-13 Opened on 1-25-13

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # A503 Foam Box Client Cooler Box Other _____

Packing material used: (Bubble Wrap) (Foam) (Plastic Bag) None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF –2 °C)	Observed Sample Temp. 2.2 °C	Corrected Sample Temp. 0.2 °C	☐ Multiple on Back
IR GUN# 4G	(CF 0 °C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	
IR GUN# 5G	(CF 0 °C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	
IR GUN# 8	(CF 0 °C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity _____	Yes	(No)
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes No	(NA)
-Were custody seals on the bottle(s)?	Yes	(No)
3. Shippers' packing slip attached to the cooler(s)?	(Yes)	No
4. Did custody papers accompany the sample(s)?	(Yes)	No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes)	No
6. Did all bottles arrive in good condition (Unbroken)?	(Yes)	No
7. ~~Could all bottle labels be reconciled with the COC?~~	(Yes)	No
8. Were correct bottle(s) used for the test(s) indicated?	(Yes)	No
9. Sufficient quantity received to perform indicated analyses?	(Yes)	No
10. Were sample(s) at the correct pH upon receipt?	Yes No	(NA)
11. Were VOAs on the COC?	Yes	(No)
12. Were air bubbles >6 mm in any VOA vials?	Yes No	(NA)
13. Was a trip blank present in the cooler(s)?	Yes	(No)

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 031512-HNO3; Sulfuric Acid Lot# 051012-H2SO4; Sodium Hydroxide Lot# 121809-NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? ______________________________

Client ID	pH	Date	Initials

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant

February 08, 2013

Rob Ellis
ARCADIS
430 First Avenue North, Ste 720
Minneapolis, MN US 55401

Enovis project ID: E200572
Project: FORD-Twin Cities Assembly Plant
Project number: DE000440.0001
Laboratory: TestAmerica - North Canton
Laboratory submittal: 20296-1
Sample date: 2013-01-23
Report received by Enovis: 2013-02-08
Initial Data Verification completed by Enovis: 2013-02-08

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the Enovis Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

1 Solid sample(s) was analyzed for GCMS VOC, GCMS SVOC, GC VOC, Metals and General Chemistry parameter(s). 1 Methanol trip blank was analyzed for GCMS VOC and GRO parameters.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, LCS/LCD RPD, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Qualifiers added during verification have been added to the electronic data which is available for download from the Enovis CLMS. Refer to the attached table of analytical results that have been qualified during verification.

The following minor QC exceptions or missing information were noted:

GCMS VOC method blank had detections below the RL for 1,3-dichlorobenzene, ethylbenzene, methylene chloride, m&p-xylene, toluene and 1,2,4-trimethylbenzene. Client samples -001 and -002 methylene chloride results and sample -001 m&p-xylenes results should be considered to be non-detect at the RL and qualified with UB flags.

GCMS VOC trip blank had detections below the RL for MEK and methylene chloride. Client sample -001 methylene chloride result should be considered to be non-detect at the RL and qualified with a UB flag. GRO trip blank result was non-detect.

GRO sample results did not include surrogate recovery outliers.

GCMS SVOC method blank had a detection below the RL for bis-2-ethylhexylphthalate. Client sample -001 result for this analyte should be considered to be non-detect at the RL and qualified with a UB flag.

GCMS SVOC LCS recovery was an outlier biased high for Atrazine. Qualification of client sample results is not required based on this high bias QC outlier.

GCMS SVOC MS/MSD recoveries performed on client sample -001 were outliers biased low for hexachlorocyclopentadiene. Client sample -001 result for this analyte should be considered to be estimated and qualified with a UJ flag. MS recovery outlier only for 3,3-dichlorobenzidine did not require qualification for client sample results.

Metals method blanks had detections below the RL for barium and mercury. Client sample -001 mercury result should be considered to be non-detect at the RL and qualified with a UB flag.

Metals LCS recovery was an outlier biased high for mercury. Client sample mercury results have been qualified as non-detect at the RL due to method blank detections so further qualification based on this high bias outlier was not required.

Metals MS/MSD recoveries performed on client sample -001 were outliers biased low for lead. Client sample -001 lead result should be considered to be estimated and qualified with a J flag. MSD recovery and MS/MSD RPD were outliers with the recovery biased high for mercury. Qualification of client sample results was not required based on the mercury MS QC outliers.

Cyanide QC batch MS/MSD recovery outliers were not performed on a sample from this submittal. Qualification of client sample results is not required based on these sample-specific QC outliers.

The definitions of the qualifiers used for this data package are defined in the analytical report. Enovis valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory's analytical report access the Enovis CLMS at http://enovis-inc.com/enovis53/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

Enovis Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

SAMPLING AND ANALYSIS SUMMARY

Enovis Project ID: E200572
Laboratory: TestAmerica-North Canton
Laboratory Submittal: 20296-1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS VOC	GCMS SVOC	Wisconsin DRO Method	Wisconsin GRO Method	ICP Metals	Mercury in Solid Waste	Total & Amenable Cyanides
240202961	HA-PT3(1-2)(20130123)	1/23/2013	1:52:00	X	X	X	X	X	X	X
240202962	METHANOL BLANK	1/23/2013	12:00:00	X			X			

Qualified Results Summary

Enovis Project ID: E200572
Laboratory: TestAmerica - North Canton
Laboratory Submittal: 20296-1

		Sample Name:	HA-PT3(1-2)(20130123)				METHANOL BLANK			
		Lab Sample ID:	240202961				240202962			
		Sample Date:	1/23/2013				1/23/2013			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC										
	OSW-8260B									
	m-Xylene & p-Xylene	179601-23-1	11	580	ug/kg	**UB**				
	Methylene Chloride	75-09-2	210	290	ug/kg	**UB**	190	250	ug/kg	**UB**
GC/MS SVOC										
	OSW-8270C									
	Bis(2-ethylhexyl) phthalate	117-81-7	70	360	ug/kg	**UB**				
	Hexachlorocyclopentadiene	77-47-4	ND	1700	ug/kg	**UJ**				
Metals										
	OSW-6010B									
	Lead	7439-92-1	13	0.31	mg/kg	**J**				
	OSW-7471A									
	Mercury	7439-97-6	0.050	0.11	mg/kg	**UB**				

GCMS VOC method blank had detections below the RL for 1,3-dichlorobenzene, ethylbenzene, methylene chloride, m&p-xylene, toluene and 1,2,4-trimethylbenzene. Client samples **-001 and -002 methylene chloride results and sample -001 m&p-xylenes** results should be considered to be non-detect at the RL and qualified with **UB** flags.

GCMS VOC trip blank had detections below the RL for MEK and methylene chloride. Client sample **-001 methylene chloride** result should be considered to be non-detect at the RL and qualified with a **UB** flag

GCMS SVOC method blank had a detection below the RL for **bis-2-ethylhexylphthalate**. Client sample **-001** result for this analyte should be considered to be non-detect at the RL and qualified with a **UB** flag.

GCMS SVOC MS/MSD recoveries performed on client sample **-001** were outliers biased low for **hexachlorocyclopentadiene**. Client sample -001 result for this analyte should be considered to be estimated and qualified with a **UJ** flag.

Metals method blanks had detections below the RL for barium and mercury. Client sample **-001 mercury** result should be considered to be non-detect at the RL and qualified with a **UB** flag.

Metals MS/MSD recoveries performed on client sample **-001** were outliers biased low for lead. Client sample -001 **lead** result should be considered to be estimated and qualified with a **J** flag

Analytical Results Summary

Enovis Project ID: E200572
Laboratory: TestAmerica - North Canton
Laboratory Submittal: 20296-1

		Sample Name:	HA-PT3(1-2)(20130123)				METHANOL BLANK			
		Lab Sample ID:	240202961				240202962			
		Sample Date:	1/23/2013				1/23/2013			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC									
OSW-8260B									
1,1,1,2-Tetrachloroethane	630-20-6	ND	290	ug/kg	---	ND	250	ug/kg	---
1,1,1-Trichloroethane	71-55-6	ND	290	ug/kg	---	ND	250	ug/kg	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	290	ug/kg	---	ND	250	ug/kg	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	290	ug/kg	---	ND	250	ug/kg	---
1,1,2-Trichloroethane	79-00-5	ND	290	ug/kg	---	ND	250	ug/kg	---
1,1-Dichloroethane	75-34-3	ND	290	ug/kg	---	ND	250	ug/kg	---
1,1-Dichloroethene	75-35-4	ND	290	ug/kg	---	ND	250	ug/kg	---
1,1-Dichloropropene	563-58-6	ND	290	ug/kg	---	ND	250	ug/kg	---
1,2,3-Trichlorobenzene	87-61-6	ND	290	ug/kg	---	ND	250	ug/kg	---
1,2,3-Trichloropropane	96-18-4	ND	290	ug/kg	---	ND	250	ug/kg	---
1,2,4-Trichlorobenzene	120-82-1	ND	290	ug/kg	---	ND	250	ug/kg	---
1,2,4-Trimethylbenzene	95-63-6	ND	290	ug/kg	---	ND	250	ug/kg	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	580	ug/kg	---	ND	500	ug/kg	---
1,2-Dibromoethane	106-93-4	ND	290	ug/kg	---	ND	250	ug/kg	---
1,2-Dichlorobenzene	95-50-1	ND	290	ug/kg	---	ND	250	ug/kg	---
1,2-Dichloroethane	107-06-2	ND	290	ug/kg	---	ND	250	ug/kg	---
1,2-Dichloropropane	78-87-5	ND	290	ug/kg	---	ND	250	ug/kg	---
1,3,5-Trimethylbenzene	108-67-8	ND	290	ug/kg	---	ND	250	ug/kg	---
1,3-Dichlorobenzene	541-73-1	ND	290	ug/kg	---	ND	250	ug/kg	---
1,3-Dichloropropane	142-28-9	ND	290	ug/kg	---	ND	250	ug/kg	---
1,4-Dichlorobenzene	106-46-7	ND	290	ug/kg	---	ND	250	ug/kg	---
2,2-Dichloropropane	594-20-7	ND	290	ug/kg	---	ND	250	ug/kg	---
2-Butanone (MEK)	78-93-3	ND	1200	ug/kg	---	49	1000	ug/kg	J
2-Chlorotoluene	95-49-8	ND	290	ug/kg	---	ND	250	ug/kg	---
2-Hexanone	591-78-6	ND	1200	ug/kg	---	ND	1000	ug/kg	---
4-Chlorotoluene	106-43-4	ND	290	ug/kg	---	ND	250	ug/kg	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	1200	ug/kg	---	ND	1000	ug/kg	---
Acetone	67-64-1	ND	1200	ug/kg	---	ND	1000	ug/kg	---
Allyl chloride	107-05-1	ND	580	ug/kg	---	ND	500	ug/kg	---
Benzene	71-43-2	ND	290	ug/kg	---	ND	250	ug/kg	---
Bromobenzene	108-86-1	ND	290	ug/kg	---	ND	250	ug/kg	---
Bromochloromethane	74-97-5	ND	290	ug/kg	---	ND	250	ug/kg	---
Bromodichloromethane	75-27-4	ND	290	ug/kg	---	ND	250	ug/kg	---
Bromoform	75-25-2	ND	290	ug/kg	---	ND	250	ug/kg	---
Bromomethane	74-83-9	ND	290	ug/kg	---	ND	250	ug/kg	---
Carbon disulfide	75-15-0	ND	290	ug/kg	---	ND	250	ug/kg	---
Carbon tetrachloride	56-23-5	ND	290	ug/kg	---	ND	250	ug/kg	---
Chlorobenzene	108-90-7	ND	290	ug/kg	---	ND	250	ug/kg	---
Chlorodibromomethane	124-48-1	ND	290	ug/kg	---	ND	250	ug/kg	---
Chloroethane	75-00-3	ND	290	ug/kg	---	ND	250	ug/kg	---
Chloroform	67-66-3	ND	290	ug/kg	---	ND	250	ug/kg	---
Chloromethane	74-87-3	ND	290	ug/kg	---	ND	250	ug/kg	---
cis-1,2-Dichloroethene	156-59-2	ND	290	ug/kg	---	ND	250	ug/kg	---
cis-1,3-Dichloropropene	10061-01-5	ND	290	ug/kg	---	ND	250	ug/kg	---
Cyclohexane	110-82-7	ND	580	ug/kg	---	ND	500	ug/kg	---
Dibromomethane	74-95-3	ND	290	ug/kg	---	ND	250	ug/kg	---
Dichlorodifluoromethane	75-71-8	ND	290	ug/kg	---	ND	250	ug/kg	---
Dichlorofluoromethane	75-43-4	ND	580	ug/kg	---	ND	500	ug/kg	---
Ethyl ether	60-29-7	ND	580	ug/kg	---	ND	500	ug/kg	---
Ethylbenzene	100-41-4	ND	290	ug/kg	---	ND	250	ug/kg	---
Hexachlorobutadiene	87-68-3	ND	290	ug/kg	---	ND	250	ug/kg	---
Isopropylbenzene	98-82-8	ND	290	ug/kg	---	ND	250	ug/kg	---
m-Xylene & p-Xylene	179601-23-1	11	580	ug/kg	UB	ND	500	ug/kg	---
Methyl acetate	79-20-9	190	580	ug/kg	J	ND	500	ug/kg	---
Methyl tert butyl ether	1634-04-4	ND	1200	ug/kg	---	ND	1000	ug/kg	---
Methylcyclohexane	108-87-2	ND	580	ug/kg	---	ND	500	ug/kg	---
Methylene Chloride	75-09-2	210	290	ug/kg	UB	190	250	ug/kg	UB
n-Butylbenzene	104-51-8	ND	290	ug/kg	---	ND	250	ug/kg	---
N-Propylbenzene	103-65-1	ND	290	ug/kg	---	ND	250	ug/kg	---
Naphthalene	91-20-3	ND	290	ug/kg	---	ND	250	ug/kg	---
o-Xylene	95-47-6	ND	290	ug/kg	---	ND	250	ug/kg	---
p-Isopropyltoluene	99-87-6	ND	290	ug/kg	---	ND	250	ug/kg	---
sec-Butylbenzene	135-98-8	ND	290	ug/kg	---	ND	250	ug/kg	---
Styrene	100-42-5	ND	290	ug/kg	---	ND	250	ug/kg	---
tert-Butylbenzene	98-06-6	ND	290	ug/kg	---	ND	250	ug/kg	---
Tetrachloroethene	127-18-4	ND	290	ug/kg	---	ND	250	ug/kg	---
Tetrahydrofuran	109-99-9	ND	1200	ug/kg	---	ND	1000	ug/kg	---
Toluene	108-88-3	ND	290	ug/kg	---	ND	250	ug/kg	---
trans-1,2-Dichloroethene	156-60-5	ND	290	ug/kg	---	ND	250	ug/kg	---
trans-1,3-Dichloropropene	10061-02-6	ND	290	ug/kg	---	ND	250	ug/kg	---
Trichloroethene	79-01-6	ND	290	ug/kg	---	ND	250	ug/kg	---
Trichlorofluoromethane	75-69-4	ND	290	ug/kg	---	ND	250	ug/kg	---
Vinyl chloride	75-01-4	ND	290	ug/kg	---	ND	250	ug/kg	---

Analytical Results Summary

Enovis Project ID: E200572
Laboratory: TestAmerica - North Canton
Laboratory Submittal: 20296-1

		Sample Name:	HA-PT3(1-2)(20130123)				METHANOL BLANK			
		Lab Sample ID:	240202961				240202962			
		Sample Date:	1/23/2013				1/23/2013			
				Report		Valid		Report		Valid
Analyte	Cas No.	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier
GC/MS SVOC									
OSW-8270C									
1,1'-Biphenyl	92-52-4	ND	360	ug/kg	---				
2,2'-oxybis[1-chloropropane]	108-60-1	ND	360	ug/kg	---				
2,4,5-Trichlorophenol	95-95-4	ND	360	ug/kg	---				
2,4,6-Trichlorophenol	88-06-2	ND	360	ug/kg	---				
2,4-Dichlorophenol	120-83-2	ND	360	ug/kg	---				
2,4-Dimethylphenol	105-67-9	ND	360	ug/kg	---				
2,4-Dinitrophenol	51-28-5	ND	1700	ug/kg	---				
2,4-Dinitrotoluene	121-14-2	ND	360	ug/kg	---				
2,6-Dinitrotoluene	606-20-2	ND	360	ug/kg	---				
2-Chloronaphthalene	91-58-7	ND	360	ug/kg	---				
2-Chlorophenol	95-57-8	ND	360	ug/kg	---				
2-Methylnaphthalene	91-57-6	7.6	360	ug/kg	J				
2-Methylphenol	95-48-7	ND	360	ug/kg	---				
2-Nitroaniline	88-74-4	ND	1700	ug/kg	---				
2-Nitrophenol	88-75-5	ND	360	ug/kg	---				
3 & 4 Methylphenol	65794-96-9	ND	430	ug/kg	---				
3,3'-Dichlorobenzidine	91-94-1	ND	1700	ug/kg	---				
3-Nitroaniline	99-09-2	ND	1700	ug/kg	---				
4,6-Dinitro-2-methylphenol	534-52-1	ND	1700	ug/kg	---				
4-Bromophenyl phenyl ether	101-55-3	ND	360	ug/kg	---				
4-Chloro-3-methylphenol	59-50-7	ND	360	ug/kg	---				
4-Chloroaniline	106-47-8	ND	360	ug/kg	---				
4-Chlorophenyl phenyl ether	7005-72-3	ND	360	ug/kg	---				
4-Nitroaniline	100-01-6	ND	1700	ug/kg	---				
4-Nitrophenol	100-02-7	ND	1700	ug/kg	---				
Acenaphthene	83-32-9	25	360	ug/kg	J				
Acenaphthylene	208-96-8	33	360	ug/kg	J				
Acetophenone	98-86-2	ND	360	ug/kg	---				
Anthracene	120-12-7	67	360	ug/kg	J				
Atrazine	1912-24-9	ND	360	ug/kg	---				
Benzaldehyde	100-52-7	ND	360	ug/kg	---				
Benzo[a]anthracene	56-55-3	270	360	ug/kg	J				
Benzo[a]pyrene	50-32-8	250	360	ug/kg	J				
Benzo[b]fluoranthene	205-99-2	400	360	ug/kg	---				
Benzo[g,h,i]perylene	191-24-2	140	360	ug/kg	J				
Benzo[k]fluoranthene	207-08-9	120	360	ug/kg	J				
Bis(2-chloroethoxy)methane	111-91-1	ND	360	ug/kg	---				
Bis(2-chloroethyl)ether	111-44-4	ND	360	ug/kg	---				
Bis(2-ethylhexyl) phthalate	117-81-7	70	360	ug/kg	UB				
Butyl benzyl phthalate	85-68-7	ND	360	ug/kg	---				
Caprolactam	105-60-2	ND	360	ug/kg	---				
Carbazole	86-74-8	31	360	ug/kg	J				
Chrysene	218-01-9	250	360	ug/kg	J				
Di-n-butyl phthalate	84-74-2	ND	360	ug/kg	---				
Di-n-octyl phthalate	117-84-0	ND	360	ug/kg	---				
Dibenz(a,h)anthracene	53-70-3	48	360	ug/kg	J				
Dibenzofuran	132-64-9	14	360	ug/kg	J				
Diethyl phthalate	84-66-2	ND	360	ug/kg	---				
Dimethyl phthalate	131-11-3	ND	360	ug/kg	---				
Fluoranthene	206-44-0	540	360	ug/kg	---				
Fluorene	86-73-7	23	360	ug/kg	J				
Hexachlorobenzene	118-74-1	ND	360	ug/kg	---				
Hexachlorobutadiene	87-68-3	ND	360	ug/kg	---				
Hexachlorocyclopentadiene	77-47-4	ND	1700	ug/kg	UJ				
Hexachloroethane	67-72-1	ND	360	ug/kg	---				
Indeno[1,2,3-cd]pyrene	193-39-5	120	360	ug/kg	J				
Isophorone	78-59-1	ND	360	ug/kg	---				
N-Nitrosodi-n-propylamine	621-64-7	ND	360	ug/kg	---				
N-Nitrosodiphenylamine	86-30-6	ND	360	ug/kg	---				
Naphthalene	91-20-3	9.0	360	ug/kg	J				
Nitrobenzene	98-95-3	ND	360	ug/kg	---				
Pentachlorophenol	87-86-5	ND	360	ug/kg	---				
Phenanthrene	85-01-8	260	360	ug/kg	J				
Phenol	108-95-2	ND	360	ug/kg	---				
Pyrene	129-00-0	430	360	ug/kg	---				

Analytical Results Summary

Enovis Project ID: E200572
Laboratory: TestAmerica - North Canton
Laboratory Submittal: 20296-1

			Sample Name:	HA-PT3(1-2)(20130123)				METHANOL BLANK			
			Lab Sample ID:	240202961				240202962			
			Sample Date:	1/23/2013				1/23/2013			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC VOC										
	OSW-8015B									
	Diesel Range Organics [C10 - C28]	E-1004	24	18	mg/kg	---				
	PUBL-SW-140									
	WI Gasoline Range Organics (C6-C10)	E-1005	ND	11	mg/kg	---	ND	10	mg/kg	---
Metals										
	OSW-6010B									
	Arsenic	7440-38-2	3.1	1.0	mg/kg	---				
	Barium	7440-39-3	44	21	mg/kg	---				
	Cadmium	7440-43-9	0.13	0.21	mg/kg	J				
	Chromium	7440-47-3	12	0.52	mg/kg	---				
	Lead	7439-92-1	13	0.31	mg/kg	J				
	Selenium	7782-49-2	ND	0.52	mg/kg	---				
	Silver	7440-22-4	ND	0.52	mg/kg	---				
	OSW-7471A									
	Mercury	7439-97-6	0.050	0.11	mg/kg	UB				
General Chemistry										
	OSW-9012A									
	Cyanide, Total	57-12-5	ND	0.52	mg/kg	---				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-21829-1

Job Description: Ford TCAP - E200572

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

Attention: Mr. Rob Ellis

Approved for release.
John McFadden
Project Manager I
3/25/2013 10:47 AM

Designee for
Denise Pohl
Project Manager II
denise.pohl@testamericainc.com
03/25/2013

TestAmerica Laboratories, Inc.
TestAmerica Canton 4101 Shuffel Street NW, North Canton, OH 44720
Tel (330) 497-9396 Fax (330) 497-0772 www.testamericainc.com

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford TCAP - E200572

Report Number: 240-21829-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 03/09/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 0.7 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples BH-PT8(0-2)(20130307) (240-21829-1) and METHANOL BLANK (240-21829-2) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 03/13/2013 and analyzed on 03/14/2013.

Insufficient sample volume was available to meet method-mandated requirements for matrix spike/matrix spike duplicate (MS/MSD) analyses for batch 78168.

No other difficulties were encountered during the VOCs analyses. All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample BH-PT8(0-2)(20130307) (240-21829-1) was analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 03/13/2013 and analyzed on 03/18/2013.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 240-78126/23-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

The laboratory control sample (LCS) for prep batch 78126 exceeded control limits for the following analytes: atrazine. This analyte was biased high in the LCS and was not detected in the associated sample; therefore, the data have been reported and flagged accordingly.

No other difficulties were encountered during the SVOCs analysis. All other quality control parameters were within the acceptance limits.

WISCONSIN GRO

Sample BH-PT8(0-2)(20130307) (240-21829-1) was analyzed for Wisconsin GRO in accordance with Wisconsin DNR Modified GRO. The samples were prepared on 03/13/2013 and analyzed on 03/19/2013.

No difficulties were encountered during the WI-GRO analysis. All quality control parameters were within the acceptance limits.

WISCONSIN DRO

Sample BH-PT8(0-2)(20130307) (240-21829-1) was analyzed for Wisconsin DRO in accordance with Wisconsin DNR Modified DRO. The samples were prepared on 03/12/2013 and analyzed on 03/14/2013.

WI Diesel Range Organics (C10-C28) was detected in method blank MB 240-78027/2-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged.

No other difficulties were encountered during the WI-DRO analysis. All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP)

Sample BH-PT8(0-2)(20130307) (240-21829-1) was analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 03/12/2013 and analyzed on 03/13/2013.

Barium was detected in method blank MB 240-78008/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged.

Lead failed the recovery criteria high for the MSD of sample BH-PT8(0-2)(20130307)MSD (240-21829-1) in batch 240-78244. Lead exceeded the rpd limit.

No other difficulties were encountered during the metals analysis. All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Sample BH-PT8(0-2)(20130307) (240-21829-1) was analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared on 03/12/2013 and analyzed on 03/14/2013.

Mercury failed the recovery criteria high for the MSD of sample BH-PT8(0-2)(20130307)MSD (240-21829-1) in batch 240-78388. Mercury exceeded the rpd limit.

No other difficulties were encountered during the mercury analysis. All other quality control parameters were within the acceptance limits.

TOTAL AND AMENABLE CYANIDE

Sample BH-PT8(0-2)(20130307) (240-21829-1) was analyzed for total and amenable cyanide in accordance with EPA SW-846 Method 9012A. The samples were prepared and analyzed on 03/15/2013.

No difficulties were encountered during the cyanide analysis. All quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Sample BH-PT8(0-2)(20130307) (240-21829-1) was analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 03/11/2013.

No difficulties were encountered during the % solids analysis. All quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-21829-1	**BH-PT8(0-2)(20130307)**					
Methyl acetate		80	J	550	ug/Kg	8260B
2-Methylnaphthalene		9.9	J	390	ug/Kg	8270C
Acenaphthene		15	J	390	ug/Kg	8270C
Acenaphthylene		5.1	J	390	ug/Kg	8270C
Anthracene		19	J	390	ug/Kg	8270C
Benzo[a]anthracene		76	J	390	ug/Kg	8270C
Benzo[a]pyrene		95	J	390	ug/Kg	8270C
Benzo[b]fluoranthene		120	J	390	ug/Kg	8270C
Benzo[g,h,i]perylene		53	J	390	ug/Kg	8270C
Benzo[k]fluoranthene		53	J	390	ug/Kg	8270C
Bis(2-ethylhexyl) phthalate		69	J B	390	ug/Kg	8270C
Chrysene		100	J	390	ug/Kg	8270C
Dibenzofuran		11	J	390	ug/Kg	8270C
Fluoranthene		160	J	390	ug/Kg	8270C
Fluorene		15	J	390	ug/Kg	8270C
Indeno[1,2,3-cd]pyrene		53	J	390	ug/Kg	8270C
Naphthalene		9.4	J	390	ug/Kg	8270C
Phenanthrene		94	J	390	ug/Kg	8270C
Pyrene		130	J	390	ug/Kg	8270C
WI Diesel Range Organics (C10-C28)		14	B	9.8	mg/Kg	WI-DRO
Barium		64	B	23	mg/Kg	6010B
Cadmium		0.20	J	0.23	mg/Kg	6010B
Chromium		12		0.57	mg/Kg	6010B
Arsenic		5.1		1.1	mg/Kg	6010B
Lead		7.7		0.34	mg/Kg	6010B
Percent Solids		84		0.10	%	Moisture
Percent Moisture		16		0.10	%	Moisture
240-21829-2	**METHANOL BLANK**					
Naphthalene		9.3	J	250	ug/Kg	8260B

METHOD SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Closed System Purge and Trap	TAL NC		SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270C	
Soxhlet Extraction	TAL NC		SW846 3540C
Wisconsin - Gasoline Range Organics (GC)	TAL NC	WI-GRO WI-GRO	
Closed System Purge and Trap	TAL NC		SW846 5035
Wisconsin - Diesel Range Organics (GC)	TAL NC	WI-DRO WI-DRO	
Wisconsin Extraction (Diesel Range Organics)	TAL NC		WI-DRO WI DRO PREP
Metals (ICP)	TAL NC	SW846 6010B	
Preparation, Metals	TAL NC		SW846 3050B
Mercury (CVAA)	TAL NC	SW846 7471A	
Preparation, Mercury	TAL NC		SW846 7471A
Cyanide, Total and/or Amenable	TAL NC	SW846 9012A	
Cyanide, Total and/or Amenable, Distillation	TAL NC		SW846 9012A
Percent Moisture	TAL NC	EPA Moisture	

Lab References:

TAL NC = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

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

WI-DRO = "Modified DRO: Method For Determining Diesel Range Organics", Wisconsin DNR, Publ-SW-141, September, 1995.

WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Method	Analyst	Analyst ID
SW846 8260B	Lata, Todd	TL
SW846 8270C	Hula, Tom	TH
WI-GRO WI-GRO	Bosworth, Heather M	HMB
WI-DRO WI-DRO	Bolgrin, Deborah	DB
SW846 6010B	Counts, Karen	KC
SW846 7471A	Girard, Susan	SG
SW846 9012A	Politis, Vesna	VP
EPA Moisture	Martin, Aaron	AM

SAMPLE SUMMARY

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-21829-1	BH-PT8(0-2)(20130307)	Solid	03/07/2013 1100	03/09/2013 0930
240-21829-2	METHANOL BLANK	Solid	03/07/2013 0000	03/09/2013 0930

SAMPLE RESULTS

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Client Sample ID: **BH-PT8(0-2)(20130307)**

Lab Sample ID: 240-21829-1 Date Sampled: 03/07/2013 1100
Client Matrix: Solid % Moisture: 16.2 Date Received: 03/09/2013 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-78236	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-78168	Lab File ID:	UX83883.D
Dilution:	1.0			Initial Weight/Volume:	10.887 g
Analysis Date:	03/14/2013 0502			Final Weight/Volume:	10 mL
Prep Date:	03/13/2013 1054				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		ND		190	1100
Allyl chloride		ND		58	550
Benzene		ND		13	270
Bromobenzene		ND		14	270
Bromochloromethane		ND		14	270
Bromodichloromethane		ND		11	270
Bromoform		ND		21	270
Bromomethane		ND		32	270
2-Butanone (MEK)		ND		47	1100
Carbon disulfide		ND		13	270
Carbon tetrachloride		ND		7.0	270
Chlorobenzene		ND		7.0	270
Chlorodibromomethane		ND		13	270
Chloroethane		ND		67	270
Chloroform		ND		9.6	270
Chloromethane		ND		15	270
2-Chlorotoluene		ND		9.9	270
4-Chlorotoluene		ND		11	270
cis-1,2-Dichloroethene		ND		7.6	270
cis-1,3-Dichloropropene		ND		8.7	270
Cyclohexane		ND		44	550
1,2-Dibromo-3-Chloropropane		ND		55	550
1,2-Dibromoethane		ND		11	270
Dibromomethane		ND		15	270
1,2-Dichlorobenzene		ND		9.4	270
1,3-Dichlorobenzene		ND		5.3	270
1,4-Dichlorobenzene		ND		8.8	270
Dichlorodifluoromethane		ND		18	270
1,1-Dichloroethane		ND		19	270
1,2-Dichloroethane		ND		11	270
1,1-Dichloroethene		ND		20	270
Dichlorofluoromethane		ND		27	550
1,2-Dichloropropane		ND		9.0	270
1,3-Dichloropropane		ND		24	270
2,2-Dichloropropane		ND		25	270
1,1-Dichloropropene		ND		11	270
Ethylbenzene		ND		5.9	270
Ethyl ether		ND		16	550
Hexachlorobutadiene		ND		15	270
2-Hexanone		ND		22	1100
Isopropylbenzene		ND		7.1	270
Methyl acetate		80	J	27	550
Methylcyclohexane		ND		13	550
Methylene Chloride		ND		84	270
4-Methyl-2-pentanone (MIBK)		ND		53	1100
Methyl tert butyl ether		ND		7.8	270

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Client Sample ID: **BH-PT8(0-2)(20130307)**

Lab Sample ID: 240-21829-1 Date Sampled: 03/07/2013 1100
Client Matrix: Solid % Moisture: 16.2 Date Received: 03/09/2013 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-78236	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-78168	Lab File ID:	UX83883.D
Dilution:	1.0			Initial Weight/Volume:	10.887 g
Analysis Date:	03/14/2013 0502			Final Weight/Volume:	10 mL
Prep Date:	03/13/2013 1054				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
m-Xylene & p-Xylene		ND		6.8	550
Naphthalene		ND		7.3	270
n-Butylbenzene		ND		8.8	270
N-Propylbenzene		ND		15	270
o-Xylene		ND		9.3	270
p-Isopropyltoluene		ND		5.3	270
sec-Butylbenzene		ND		5.2	270
Styrene		ND		6.1	270
tert-Butylbenzene		ND		7.1	270
1,1,1,2-Tetrachloroethane		ND		10	270
1,1,2,2-Tetrachloroethane		ND		9.8	270
Tetrachloroethene		ND		13	270
Tetrahydrofuran		ND		54	1100
Toluene		ND		19	270
trans-1,2-Dichloroethene		ND		10	270
trans-1,3-Dichloropropene		ND		22	270
1,2,3-Trichlorobenzene		ND		11	270
1,2,4-Trichlorobenzene		ND		8.0	270
1,1,1-Trichloroethane		ND		23	270
1,1,2-Trichloroethane		ND		13	270
Trichloroethene		ND		11	270
Trichlorofluoromethane		ND		18	270
1,2,3-Trichloropropane		ND		23	270
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		43	270
1,2,4-Trimethylbenzene		ND		5.5	270
1,3,5-Trimethylbenzene		ND		6.4	270
Vinyl chloride		ND		20	270

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene (Surr)	101		26 - 141
Dibromofluoromethane (Surr)	96		30 - 122
1,2-Dichloroethane-d4 (Surr)	105		39 - 128
Toluene-d8 (Surr)	98		33 - 134

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Client Sample ID: **METHANOL BLANK**

Lab Sample ID: 240-21829-2 Date Sampled: 03/07/2013 0000
Client Matrix: Solid Date Received: 03/09/2013 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-78236	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-78168	Lab File ID:	UX83882.D
Dilution:	1.0			Initial Weight/Volume:	10.00 g
Analysis Date:	03/14/2013 0441			Final Weight/Volume:	10 mL
Prep Date:	03/13/2013 1054				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		ND		170	1000
Allyl chloride		ND		53	500
Benzene		ND		12	250
Bromobenzene		ND		13	250
Bromochloromethane		ND		13	250
Bromodichloromethane		ND		9.9	250
Bromoform		ND		19	250
Bromomethane		ND		29	250
2-Butanone (MEK)		ND		43	1000
Carbon disulfide		ND		12	250
Carbon tetrachloride		ND		6.4	250
Chlorobenzene		ND		6.4	250
Chlorodibromomethane		ND		12	250
Chloroethane		ND		61	250
Chloroform		ND		8.8	250
Chloromethane		ND		14	250
2-Chlorotoluene		ND		9.0	250
4-Chlorotoluene		ND		9.9	250
cis-1,2-Dichloroethene		ND		6.9	250
cis-1,3-Dichloropropene		ND		7.9	250
Cyclohexane		ND		40	500
1,2-Dibromo-3-Chloropropane		ND		50	500
1,2-Dibromoethane		ND		10	250
Dibromomethane		ND		14	250
1,2-Dichlorobenzene		ND		8.6	250
1,3-Dichlorobenzene		ND		4.8	250
1,4-Dichlorobenzene		ND		8.0	250
Dichlorodifluoromethane		ND		16	250
1,1-Dichloroethane		ND		17	250
1,2-Dichloroethane		ND		10	250
1,1-Dichloroethene		ND		18	250
Dichlorofluoromethane		ND		25	500
1,2-Dichloropropane		ND		8.2	250
1,3-Dichloropropane		ND		22	250
2,2-Dichloropropane		ND		23	250
1,1-Dichloropropene		ND		10	250
Ethylbenzene		ND		5.4	250
Ethyl ether		ND		15	500
Hexachlorobutadiene		ND		14	250
2-Hexanone		ND		20	1000
Isopropylbenzene		ND		6.5	250
Methyl acetate		ND		25	500
Methylcyclohexane		ND		12	500
Methylene Chloride		ND		77	250
4-Methyl-2-pentanone (MIBK)		ND		48	1000
Methyl tert butyl ether		ND		7.1	250

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Client Sample ID: **METHANOL BLANK**

Lab Sample ID: 240-21829-2 Date Sampled: 03/07/2013 0000
Client Matrix: Solid Date Received: 03/09/2013 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-78236	Instrument ID:	A3UX8
Prep Method:	5035	Prep Batch:	240-78168	Lab File ID:	UX83882.D
Dilution:	1.0			Initial Weight/Volume:	10.00 g
Analysis Date:	03/14/2013 0441			Final Weight/Volume:	10 mL
Prep Date:	03/13/2013 1054				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	MDL	RL
m-Xylene & p-Xylene		ND		6.2	500
Naphthalene		9.3	J	6.7	250
n-Butylbenzene		ND		8.0	250
N-Propylbenzene		ND		14	250
o-Xylene		ND		8.5	250
p-Isopropyltoluene		ND		4.8	250
sec-Butylbenzene		ND		4.7	250
Styrene		ND		5.6	250
tert-Butylbenzene		ND		6.5	250
1,1,1,2-Tetrachloroethane		ND		9.1	250
1,1,2,2-Tetrachloroethane		ND		8.9	250
Tetrachloroethene		ND		12	250
Tetrahydrofuran		ND		49	1000
Toluene		ND		17	250
trans-1,2-Dichloroethene		ND		9.2	250
trans-1,3-Dichloropropene		ND		20	250
1,2,3-Trichlorobenzene		ND		10	250
1,2,4-Trichlorobenzene		ND		7.3	250
1,1,1-Trichloroethane		ND		21	250
1,1,2-Trichloroethane		ND		12	250
Trichloroethene		ND		9.7	250
Trichlorofluoromethane		ND		16	250
1,2,3-Trichloropropane		ND		21	250
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		39	250
1,2,4-Trimethylbenzene		ND		5.0	250
1,3,5-Trimethylbenzene		ND		5.8	250
Vinyl chloride		ND		18	250

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene (Surr)	106		26 - 141
Dibromofluoromethane (Surr)	103		30 - 122
1,2-Dichloroethane-d4 (Surr)	119		39 - 128
Toluene-d8 (Surr)	108		33 - 134

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Client Sample ID: **BH-PT8(0-2)(20130307)**

Lab Sample ID: 240-21829-1 Date Sampled: 03/07/2013 1100
Client Matrix: Solid % Moisture: 16.2 Date Received: 03/09/2013 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	240-78585	Instrument ID:	A4AG2
Prep Method:	3540C	Prep Batch:	240-78126	Lab File ID:	0318008.D
Dilution:	1.0			Initial Weight/Volume:	30.02 g
Analysis Date:	03/18/2013 1133			Final Weight/Volume:	2 mL
Prep Date:	03/13/2013 0848			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		ND		32	390
2,2'-oxybis[1-chloropropane]		ND		11	390
2,4,5-Trichlorophenol		ND		30	390
2,4,6-Trichlorophenol		ND		95	390
2,4-Dichlorophenol		ND		24	390
2,4-Dimethylphenol		ND		24	390
2,4-Dinitrophenol		ND		95	1900
2,4-Dinitrotoluene		ND		32	390
2,6-Dinitrotoluene		ND		25	390
2-Chloronaphthalene		ND		3.9	390
2-Chlorophenol		ND		32	390
2-Methylnaphthalene		9.9	J	3.9	390
2-Methylphenol		ND		95	390
2-Nitroaniline		ND		11	1900
2-Nitrophenol		ND		32	390
3,3'-Dichlorobenzidine		ND		21	1900
3-Nitroaniline		ND		19	1900
4,6-Dinitro-2-methylphenol		ND		95	1900
4-Bromophenyl phenyl ether		ND		16	390
4-Chloro-3-methylphenol		ND		25	390
4-Chloroaniline		ND		20	390
4-Chlorophenyl phenyl ether		ND		16	390
4-Nitroaniline		ND		31	1900
4-Nitrophenol		ND		95	1900
Acenaphthene		15	J	3.9	390
Acenaphthylene		5.1	J	3.9	390
Acetophenone		ND		11	390
Anthracene		19	J	3.9	390
Atrazine		ND	*	11	390
Benzaldehyde		ND		14	390
Benzo[a]anthracene		76	J	3.9	390
Benzo[a]pyrene		95	J	3.9	390
Benzo[b]fluoranthene		120	J	3.9	390
Benzo[g,h,i]perylene		53	J	3.9	390
Benzo[k]fluoranthene		53	J	3.9	390
Bis(2-chloroethoxy)methane		ND		26	390
Bis(2-chloroethyl)ether		ND		2.4	390
Bis(2-ethylhexyl) phthalate		69	J B	23	390
Butyl benzyl phthalate		ND		12	390
Caprolactam		ND		44	390
Carbazole		ND		32	390
Chrysene		100	J	1.3	390
Dibenz(a,h)anthracene		ND		3.9	390
Dibenzofuran		11	J	3.9	390
Diethyl phthalate		ND		19	390
Dimethyl phthalate		ND		20	390

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Client Sample ID: **BH-PT8(0-2)(20130307)**

Lab Sample ID: 240-21829-1 Date Sampled: 03/07/2013 1100
Client Matrix: Solid % Moisture: 16.2 Date Received: 03/09/2013 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	240-78585	Instrument ID:	A4AG2
Prep Method:	3540C	Prep Batch:	240-78126	Lab File ID:	0318008.D
Dilution:	1.0			Initial Weight/Volume:	30.02 g
Analysis Date:	03/18/2013 1133			Final Weight/Volume:	2 mL
Prep Date:	03/13/2013 0848			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Di-n-butyl phthalate		ND		18	390
Di-n-octyl phthalate		ND		32	390
Fluoranthene		160	J	3.9	390
Fluorene		15	J	3.9	390
Hexachlorobenzene		ND		2.5	390
Hexachlorobutadiene		ND		32	390
Hexachlorocyclopentadiene		ND		32	1900
Hexachloroethane		ND		11	390
Indeno[1,2,3-cd]pyrene		53	J	3.9	390
Isophorone		ND		16	390
Naphthalene		9.4	J	3.9	390
Nitrobenzene		ND		2.6	390
N-Nitrosodi-n-propylamine		ND		32	390
N-Nitrosodiphenylamine		ND		25	390
Pentachlorophenol		ND		95	390
Phenol		ND		32	390
Phenanthrene		94	J	3.9	390
Pyrene		130	J	3.9	390
3 & 4 Methylphenol		ND		24	480

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	57		24 - 110
2-Fluorophenol (Surr)	48		24 - 110
2,4,6-Tribromophenol (Surr)	35		10 - 110
Nitrobenzene-d5 (Surr)	55		20 - 110
Phenol-d5 (Surr)	47		26 - 110
Terphenyl-d14 (Surr)	72		36 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Client Sample ID: **BH-PT8(0-2)(20130307)**

Lab Sample ID: 240-21829-1 Date Sampled: 03/07/2013 1100
Client Matrix: Solid % Moisture: 16.2 Date Received: 03/09/2013 0930

WI-GRO Wisconsin - Gasoline Range Organics (GC)

Analysis Method:	WI-GRO	Analysis Batch:	240-78734	Instrument ID:	YPID
Prep Method:	5035	Prep Batch:	240-78154	Lab File ID:	YF031909.D
Dilution:	1.0			Initial Weight/Volume:	10.538 g
Analysis Date:	03/19/2013 1443			Final Weight/Volume:	10 mL
Prep Date:	03/13/2013 1013			Injection Volume:	

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
WI Gasoline Range Organics (C6-C10)		ND		0.36	11

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Client Sample ID: **BH-PT8(0-2)(20130307)**

Lab Sample ID: 240-21829-1 Date Sampled: 03/07/2013 1100
Client Matrix: Solid % Moisture: 16.2 Date Received: 03/09/2013 0930

WI-DRO Wisconsin - Diesel Range Organics (GC)

Analysis Method:	WI-DRO	Analysis Batch:	240-78321	Instrument ID:	A2HP5F
Prep Method:	WI DRO PREP	Prep Batch:	240-78027	Lab File ID:	P5F14009.D
Dilution:	1.0			Initial Weight/Volume:	29.15 g
Analysis Date:	03/14/2013 1741			Final Weight/Volume:	1 mL
Prep Date:	03/12/2013 1127			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
WI Diesel Range Organics (C10-C28)		14	B	1.2	9.8

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Client Sample ID: **BH-PT8(0-2)(20130307)**

Lab Sample ID: 240-21829-1 Date Sampled: 03/07/2013 1100
Client Matrix: Solid % Moisture: 16.2 Date Received: 03/09/2013 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	240-78244	Instrument ID:	I6
Prep Method:	3050B	Prep Batch:	240-78008	Lab File ID:	I60313A
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Analysis Date:	03/13/2013 0815			Final Weight/Volume:	100 mL
Prep Date:	03/12/2013 1017				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Barium		64	B	0.081	23
Cadmium		0.20	J	0.041	0.23
Chromium		12		0.23	0.57
Silver		ND		0.11	0.57
Arsenic		5.1		0.34	1.1
Lead		7.7		0.22	0.34
Selenium		ND		0.52	0.57

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	240-78388	Instrument ID:	H1
Prep Method:	7471A	Prep Batch:	240-78015	Lab File ID:	031314A-HG1.PRN
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	03/14/2013 1228			Final Weight/Volume:	100 mL
Prep Date:	03/12/2013 1410				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		ND		0.017	0.12

General Chemistry

Client Sample ID: **BH-PT8(0-2)(20130307)**

Lab Sample ID: 240-21829-1 Date Sampled: 03/07/2013 1100

Client Matrix: Solid % Moisture: 16.2 Date Received: 03/09/2013 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cyanide, Total	ND		mg/Kg	0.12	0.59	1.0	9012A
Analysis Batch: 240-78524	Analysis Date: 03/15/2013 1117						DryWt Corrected: Y
Prep Batch: 240-78469	Prep Date: 03/15/2013 0936						
Percent Solids	84		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-77923	Analysis Date: 03/11/2013 1648						DryWt Corrected: N
Percent Moisture	16		%	0.10	0.10	1.0	Moisture
Analysis Batch: 240-77923	Analysis Date: 03/11/2013 1648						DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	B	Compound was found in the blank and sample.
	*	LCS or LCSD 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.
GC Semi VOA		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	B	Compound was found in the blank and sample.
	F	MS or MSD 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.
	F	RPD of the MS and MSD exceeds the control limits
General Chemistry		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 240-78168					
LCS 240-78168/2-A	Lab Control Sample	T	Solid	5035	
MB 240-78168/1-A	Method Blank	T	Solid	5035	
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	5035	
240-21829-2	METHANOL BLANK	T	Solid	5035	
Analysis Batch:240-78236					
LCS 240-78168/2-A	Lab Control Sample	T	Solid	8260B	240-78168
MB 240-78168/1-A	Method Blank	T	Solid	8260B	240-78168
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	8260B	240-78168
240-21829-2	METHANOL BLANK	T	Solid	8260B	240-78168
GC/MS Semi VOA					
Prep Batch: 240-78126					
LCS 240-78126/24-A	Lab Control Sample	T	Solid	3540C	
MB 240-78126/23-A	Method Blank	T	Solid	3540C	
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	3540C	
240-21857-B-4-B MS	Matrix Spike	T	Solid	3540C	
240-21857-B-4-C MSD	Matrix Spike Duplicate	T	Solid	3540C	
Analysis Batch:240-78585					
LCS 240-78126/24-A	Lab Control Sample	T	Solid	8270C	240-78126
MB 240-78126/23-A	Method Blank	T	Solid	8270C	240-78126
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	8270C	240-78126
240-21857-B-4-B MS	Matrix Spike	T	Solid	8270C	240-78126
240-21857-B-4-C MSD	Matrix Spike Duplicate	T	Solid	8270C	240-78126

Report Basis
T = Total

Report Basis
T = Total

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC VOA					
Prep Batch: 240-78154					
LCS 240-78154/2-A	Lab Control Sample	T	Solid	5035	
LCSD 240-78154/3-A	Lab Control Sample Duplicate	T	Solid	5035	
MB 240-78154/1-A	Method Blank	T	Solid	5035	
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	5035	
Analysis Batch:240-78734					
LCS 240-78154/2-A	Lab Control Sample	T	Solid	WI-GRO	240-78154
LCSD 240-78154/3-A	Lab Control Sample Duplicate	T	Solid	WI-GRO	240-78154
MB 240-78154/1-A	Method Blank	T	Solid	WI-GRO	240-78154
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	WI-GRO	240-78154

Report Basis
T = Total

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 240-78027					
LCS 240-78027/3-A	Lab Control Sample	T	Solid	WI DRO PREP	
LCSD 240-78027/4-A	Lab Control Sample Duplicate	T	Solid	WI DRO PREP	
MB 240-78027/2-A	Method Blank	T	Solid	WI DRO PREP	
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	WI DRO PREP	
Analysis Batch:240-78172					
LCS 240-78027/3-A	Lab Control Sample	T	Solid	WI-DRO	240-78027
LCSD 240-78027/4-A	Lab Control Sample Duplicate	T	Solid	WI-DRO	240-78027
MB 240-78027/2-A	Method Blank	T	Solid	WI-DRO	240-78027
Analysis Batch:240-78321					
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	WI-DRO	240-78027

Report Basis
T = Total

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 240-78008					
LCS 240-78008/2-A	Lab Control Sample	T	Solid	3050B	
MB 240-78008/1-A	Method Blank	T	Solid	3050B	
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	3050B	
240-21829-1MS	Matrix Spike	T	Solid	3050B	
240-21829-1MSD	Matrix Spike Duplicate	T	Solid	3050B	
Prep Batch: 240-78015					
LCS 240-78015/2-A	Lab Control Sample	T	Solid	7471A	
MB 240-78015/1-A	Method Blank	T	Solid	7471A	
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	7471A	
240-21829-1MS	Matrix Spike	T	Solid	7471A	
240-21829-1MSD	Matrix Spike Duplicate	T	Solid	7471A	
Analysis Batch:240-78244					
LCS 240-78008/2-A	Lab Control Sample	T	Solid	6010B	240-78008
MB 240-78008/1-A	Method Blank	T	Solid	6010B	240-78008
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	6010B	240-78008
240-21829-1MS	Matrix Spike	T	Solid	6010B	240-78008
240-21829-1MSD	Matrix Spike Duplicate	T	Solid	6010B	240-78008
Analysis Batch:240-78388					
LCS 240-78015/2-A	Lab Control Sample	T	Solid	7471A	240-78015
MB 240-78015/1-A	Method Blank	T	Solid	7471A	240-78015
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	7471A	240-78015
240-21829-1MS	Matrix Spike	T	Solid	7471A	240-78015
240-21829-1MSD	Matrix Spike Duplicate	T	Solid	7471A	240-78015

Report Basis
T = Total

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:240-77923					
240-21783-D-3 DU	Duplicate	T	Solid	Moisture	
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	Moisture	
Prep Batch: 240-78469					
LCS 240-78469/2-A	Lab Control Sample	T	Solid	9012A	
MB 240-78469/1-A	Method Blank	T	Solid	9012A	
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	9012A	
240-21829-1MS	Matrix Spike	T	Solid	9012A	
240-21829-1MSD	Matrix Spike Duplicate	T	Solid	9012A	
Analysis Batch:240-78524					
LCS 240-78469/2-A	Lab Control Sample	T	Solid	9012A	240-78469
MB 240-78469/1-A	Method Blank	T	Solid	9012A	240-78469
240-21829-1	BH-PT8(0-2)(20130307)	T	Solid	9012A	240-78469
240-21829-1MS	Matrix Spike	T	Solid	9012A	240-78469
240-21829-1MSD	Matrix Spike Duplicate	T	Solid	9012A	240-78469

Report Basis

T = Total

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	BFB %Rec	DBFM %Rec	DCA %Rec	TOL %Rec
240-21829-1	BH-PT8(0-2) (20130307)	101	96	105	98
240-21829-2	METHANOL BLANK	106	103	119	108
MB 240-78168/1-A		103	96	111	100
LCS 240-78168/2-A		105	101	109	99

Surrogate	Acceptance Limits
BFB = 4-Bromofluorobenzene (Surr)	26-141
DBFM = Dibromofluoromethane (Surr)	30-122
DCA = 1,2-Dichloroethane-d4 (Surr)	39-128
TOL = Toluene-d8 (Surr)	33-134

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Surrogate Recovery Report

8270C Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	FBP %Rec	2FP %Rec	TBP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec
240-21829-1	BH-PT8(0-2) (20130307)	57	48	35	55	47	72
MB 240-78126/23-A		57	44	35	59	46	81
LCS 240-78126/24-A		66	55	59	65	55	86
240-21857-B-4-B MS		57	49	53	59	49	76
240-21857-B-4-C MSD		61	55	51	66	53	80

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl (Surr)	24-110
2FP = 2-Fluorophenol (Surr)	24-110
TBP = 2,4,6-Tribromophenol (Surr)	10-110
NBZ = Nitrobenzene-d5 (Surr)	20-110
PHL = Phenol-d5 (Surr)	26-110
TPH = Terphenyl-d14 (Surr)	36-110

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Method Blank - Batch: 240-78168 **Method: 8260B**
Preparation: 5035

Lab Sample ID:	MB 240-78168/1-A	Analysis Batch:	240-78236	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	240-78168	Lab File ID:	UX83880.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.00 g
Analysis Date:	03/14/2013 0358	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	03/13/2013 1054				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acetone	ND		170	1000
Allyl chloride	ND		53	500
Benzene	ND		12	250
Bromobenzene	ND		13	250
Bromochloromethane	ND		13	250
Bromodichloromethane	ND		9.9	250
Bromoform	ND		19	250
Bromomethane	ND		29	250
2-Butanone (MEK)	ND		43	1000
Carbon disulfide	ND		12	250
Carbon tetrachloride	ND		6.4	250
Chlorobenzene	ND		6.4	250
Chlorodibromomethane	ND		12	250
Chloroethane	ND		61	250
Chloroform	ND		8.8	250
Chloromethane	ND		14	250
2-Chlorotoluene	ND		9.0	250
4-Chlorotoluene	ND		9.9	250
cis-1,2-Dichloroethene	ND		6.9	250
cis-1,3-Dichloropropene	ND		7.9	250
Cyclohexane	ND		40	500
1,2-Dibromo-3-Chloropropane	ND		50	500
1,2-Dibromoethane	ND		10	250
Dibromomethane	ND		14	250
1,2-Dichlorobenzene	ND		8.6	250
1,3-Dichlorobenzene	ND		4.8	250
1,4-Dichlorobenzene	ND		8.0	250
Dichlorodifluoromethane	ND		16	250
1,1-Dichloroethane	ND		17	250
1,2-Dichloroethane	ND		10	250
1,1-Dichloroethene	ND		18	250
Dichlorofluoromethane	ND		25	500
1,2-Dichloropropane	ND		8.2	250
1,3-Dichloropropane	ND		22	250
2,2-Dichloropropane	ND		23	250
1,1-Dichloropropene	ND		10	250
Ethylbenzene	ND		5.4	250
Ethyl ether	ND		15	500
Hexachlorobutadiene	ND		14	250
2-Hexanone	ND		20	1000
Isopropylbenzene	ND		6.5	250
Methyl acetate	ND		25	500
Methylcyclohexane	ND		12	500
Methylene Chloride	ND		77	250
4-Methyl-2-pentanone (MIBK)	ND		48	1000

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Method Blank - Batch: 240-78168

Method: 8260B
Preparation: 5035

Lab Sample ID:	MB 240-78168/1-A	Analysis Batch:	240-78236	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	240-78168	Lab File ID:	UX83880.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.00 g
Analysis Date:	03/14/2013 0358	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	03/13/2013 1054				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Methyl tert butyl ether	ND		7.1	250
m-Xylene & p-Xylene	ND		6.2	500
Naphthalene	ND		6.7	250
n-Butylbenzene	ND		8.0	250
N-Propylbenzene	ND		14	250
o-Xylene	ND		8.5	250
p-Isopropyltoluene	ND		4.8	250
sec-Butylbenzene	ND		4.7	250
Styrene	ND		5.6	250
tert-Butylbenzene	ND		6.5	250
1,1,1,2-Tetrachloroethane	ND		9.1	250
1,1,2,2-Tetrachloroethane	ND		8.9	250
Tetrachloroethene	ND		12	250
Tetrahydrofuran	ND		49	1000
Toluene	ND		17	250
trans-1,2-Dichloroethene	ND		9.2	250
trans-1,3-Dichloropropene	ND		20	250
1,2,3-Trichlorobenzene	ND		10	250
1,2,4-Trichlorobenzene	ND		7.3	250
1,1,1-Trichloroethane	ND		21	250
1,1,2-Trichloroethane	ND		12	250
Trichloroethene	ND		9.7	250
Trichlorofluoromethane	ND		16	250
1,2,3-Trichloropropane	ND		21	250
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		39	250
1,2,4-Trimethylbenzene	ND		5.0	250
1,3,5-Trimethylbenzene	ND		5.8	250
Vinyl chloride	ND		18	250

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	103	26 - 141
Dibromofluoromethane (Surr)	96	30 - 122
1,2-Dichloroethane-d4 (Surr)	111	39 - 128
Toluene-d8 (Surr)	100	33 - 134

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Lab Control Sample - Batch: 240-78168

Method: 8260B
Preparation: 5035

Lab Sample ID:	LCS 240-78168/2-A	Analysis Batch:	240-78236	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	240-78168	Lab File ID:	UX83881.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.00 g
Analysis Date:	03/14/2013 0420	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	03/13/2013 1054				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	1000	734	73	16 - 156	J
Benzene	500	471	94	70 - 117	
Bromobenzene	500	475	95	72 - 120	
Bromochloromethane	500	474	95	56 - 128	
Bromodichloromethane	500	412	82	28 - 123	
Bromoform	500	320	64	10 - 117	
Bromomethane	500	187	37	10 - 114	J
2-Butanone (MEK)	1000	914	91	10 - 199	J
Carbon disulfide	500	258	52	10 - 132	
Carbon tetrachloride	500	378	76	29 - 118	
Chlorobenzene	500	478	96	71 - 116	
Chlorodibromomethane	500	340	68	22 - 113	
Chloroethane	500	300	60	10 - 120	
Chloroform	500	473	95	63 - 116	
Chloromethane	500	302	60	25 - 110	
2-Chlorotoluene	500	480	96	68 - 122	
4-Chlorotoluene	500	460	92	68 - 122	
cis-1,2-Dichloroethene	500	498	100	60 - 125	
cis-1,3-Dichloropropene	500	413	83	25 - 120	
Cyclohexane	500	386	77	40 - 120	J
1,2-Dibromo-3-Chloropropane	500	311	62	10 - 129	J
1,2-Dibromoethane	500	452	90	47 - 123	
Dibromomethane	500	453	91	68 - 118	
1,2-Dichlorobenzene	500	469	94	68 - 118	
1,3-Dichlorobenzene	500	475	95	66 - 121	
1,4-Dichlorobenzene	500	466	93	65 - 119	
Dichlorodifluoromethane	500	191	38	10 - 110	J
1,1-Dichloroethane	500	467	93	63 - 117	
1,2-Dichloroethane	500	502	100	68 - 119	
1,1-Dichloroethene	500	380	76	44 - 143	
1,2-Dichloropropane	500	481	96	73 - 113	
1,3-Dichloropropane	500	467	93	74 - 119	
2,2-Dichloropropane	500	352	70	25 - 123	
1,1-Dichloropropene	500	463	93	60 - 123	
Ethylbenzene	500	479	96	66 - 119	
Ethyl ether	500	360	72	70 - 130	J
Hexachlorobutadiene	500	466	93	34 - 135	
2-Hexanone	1000	869	87	43 - 130	J
Isopropylbenzene	500	498	100	61 - 123	
Methyl acetate	500	476	95	44 - 173	J
Methylcyclohexane	500	411	82	41 - 133	J

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Lab Control Sample - Batch: 240-78168

Method: 8260B
Preparation: 5035

Lab Sample ID:	LCS 240-78168/2-A	Analysis Batch:	240-78236	Instrument ID:	A3UX8
Client Matrix:	Solid	Prep Batch:	240-78168	Lab File ID:	UX83881.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.00 g
Analysis Date:	03/14/2013 0420	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	03/13/2013 1054				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Methylene Chloride	500	498	100	27 - 172	
4-Methyl-2-pentanone (MIBK)	1000	863	86	49 - 121	J
Methyl tert butyl ether	500	458	92	34 - 157	
m-Xylene & p-Xylene	1000	981	98	67 - 118	
Naphthalene	500	406	81	37 - 126	
n-Butylbenzene	500	455	91	51 - 137	
N-Propylbenzene	500	497	99	64 - 130	
o-Xylene	500	532	106	68 - 120	
p-Isopropyltoluene	500	473	95	56 - 136	
sec-Butylbenzene	500	479	96	58 - 131	
Styrene	500	499	100	60 - 120	
tert-Butylbenzene	500	477	95	58 - 128	
1,1,1,2-Tetrachloroethane	500	431	86	27 - 121	
1,1,2,2-Tetrachloroethane	500	435	87	54 - 121	
Tetrachloroethene	500	473	95	58 - 131	
Tetrahydrofuran	500	447	89	70 - 130	J
Toluene	500	469	94	66 - 123	
trans-1,2-Dichloroethene	500	441	88	58 - 121	
trans-1,3-Dichloropropene	500	368	74	22 - 122	
1,2,3-Trichlorobenzene	500	411	82	43 - 129	
1,2,4-Trichlorobenzene	500	429	86	41 - 135	
1,1,1-Trichloroethane	500	393	79	38 - 122	
1,1,2-Trichloroethane	500	478	96	74 - 114	
Trichloroethene	500	477	95	59 - 124	
Trichlorofluoromethane	500	436	87	17 - 145	
1,2,3-Trichloropropane	500	434	87	74 - 124	
1,1,2-Trichloro-1,2,2-trifluoroethane	500	426	85	48 - 151	
1,2,4-Trimethylbenzene	500	480	96	62 - 133	
1,3,5-Trimethylbenzene	500	478	96	60 - 130	
Vinyl chloride	500	331	66	33 - 110	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene (Surr)	105	26 - 141
Dibromofluoromethane (Surr)	101	30 - 122
1,2-Dichloroethane-d4 (Surr)	109	39 - 128
Toluene-d8 (Surr)	99	33 - 134

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Method Blank - Batch: 240-78126

Method: 8270C
Preparation: 3540C

Lab Sample ID:	MB 240-78126/23-A	Analysis Batch:	240-78585	Instrument ID:	A4AG2
Client Matrix:	Solid	Prep Batch:	240-78126	Lab File ID:	0318004.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	03/18/2013 1006	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	03/13/2013 0848			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1'-Biphenyl	ND		27	330
2,2'-oxybis[1-chloropropane]	ND		9.5	330
2,4,5-Trichlorophenol	ND		25	330
2,4,6-Trichlorophenol	ND		80	330
2,4-Dichlorophenol	ND		20	330
2,4-Dimethylphenol	ND		20	330
2,4-Dinitrophenol	ND		80	1600
2,4-Dinitrotoluene	ND		27	330
2,6-Dinitrotoluene	ND		21	330
2-Chloronaphthalene	ND		3.3	330
2-Chlorophenol	ND		27	330
2-Methylnaphthalene	ND		3.3	330
2-Methylphenol	ND		80	330
2-Nitroaniline	ND		9.1	1600
2-Nitrophenol	ND		27	330
3,3'-Dichlorobenzidine	ND		18	1600
3-Nitroaniline	ND		16	1600
4,6-Dinitro-2-methylphenol	ND		80	1600
4-Bromophenyl phenyl ether	ND		13	330
4-Chloro-3-methylphenol	ND		21	330
4-Chloroaniline	ND		17	330
4-Chlorophenyl phenyl ether	ND		13	330
4-Nitroaniline	ND		26	1600
4-Nitrophenol	ND		80	1600
Acenaphthene	ND		3.3	330
Acenaphthylene	ND		3.3	330
Acetophenone	ND		9.2	330
Anthracene	ND		3.3	330
Atrazine	ND		9.1	330
Benzaldehyde	ND		12	330
Benzo[a]anthracene	ND		3.3	330
Benzo[a]pyrene	ND		3.3	330
Benzo[b]fluoranthene	ND		3.3	330
Benzo[g,h,i]perylene	ND		3.3	330
Benzo[k]fluoranthene	ND		3.3	330
Bis(2-chloroethoxy)methane	ND		22	330
Bis(2-chloroethyl)ether	ND		2.0	330
Bis(2-ethylhexyl) phthalate	25.9	J	19	330
Butyl benzyl phthalate	ND		10	330
Caprolactam	ND		37	330
Carbazole	ND		27	330
Chrysene	ND		1.1	330
Dibenz(a,h)anthracene	ND		3.3	330
Dibenzofuran	ND		3.3	330
Diethyl phthalate	ND		16	330

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Method Blank - Batch: 240-78126 **Method: 8270C**
Preparation: 3540C

Lab Sample ID:	MB 240-78126/23-A	Analysis Batch:	240-78585	Instrument ID:	A4AG2
Client Matrix:	Solid	Prep Batch:	240-78126	Lab File ID:	0318004.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	03/18/2013 1006	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	03/13/2013 0848			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Dimethyl phthalate	ND		17	330
Di-n-butyl phthalate	ND		15	330
Di-n-octyl phthalate	ND		27	330
Fluoranthene	ND		3.3	330
Fluorene	ND		3.3	330
Hexachlorobenzene	ND		2.1	330
Hexachlorobutadiene	ND		27	330
Hexachlorocyclopentadiene	ND		27	1600
Hexachloroethane	ND		9.0	330
Indeno[1,2,3-cd]pyrene	ND		3.3	330
Isophorone	ND		13	330
Naphthalene	ND		3.3	330
Nitrobenzene	ND		2.2	330
N-Nitrosodi-n-propylamine	ND		27	330
N-Nitrosodiphenylamine	ND		21	330
Pentachlorophenol	ND		80	330
Phenol	ND		27	330
Phenanthrene	ND		3.3	330
Pyrene	ND		3.3	330
3 & 4 Methylphenol	ND		20	400

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	57	24 - 110
2-Fluorophenol (Surr)	44	24 - 110
2,4,6-Tribromophenol (Surr)	35	10 - 110
Nitrobenzene-d5 (Surr)	59	20 - 110
Phenol-d5 (Surr)	46	26 - 110
Terphenyl-d14 (Surr)	81	36 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Lab Control Sample - Batch: 240-78126

Method: 8270C
Preparation: 3540C

Lab Sample ID:	LCS 240-78126/24-A	Analysis Batch:	240-78585	Instrument ID:	A4AG2
Client Matrix:	Solid	Prep Batch:	240-78126	Lab File ID:	0318005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	03/18/2013 1028	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	03/13/2013 0848			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1'-Biphenyl	667	485	73	35 - 110	
2,2'-oxybis[1-chloropropane]	667	400	60	29 - 110	
2,4,5-Trichlorophenol	667	436	65	25 - 110	
2,4,6-Trichlorophenol	667	425	64	12 - 110	
2,4-Dichlorophenol	667	403	60	39 - 110	
2,4-Dimethylphenol	667	223	33	29 - 110	J
2,4-Dinitrophenol	667	474	71	10 - 110	J
2,4-Dinitrotoluene	667	553	83	48 - 110	
2,6-Dinitrotoluene	667	565	85	45 - 110	
2-Chloronaphthalene	667	461	69	32 - 110	
2-Chlorophenol	667	371	56	37 - 110	
2-Methylnaphthalene	667	487	73	36 - 110	
2-Methylphenol	667	351	53	41 - 110	
2-Nitroaniline	667	486	73	45 - 110	J
2-Nitrophenol	667	375	56	34 - 110	
3,3'-Dichlorobenzidine	667	256	38	28 - 110	J
3-Nitroaniline	667	444	67	44 - 110	J
4,6-Dinitro-2-methylphenol	667	423	63	10 - 110	J
4-Bromophenyl phenyl ether	667	509	76	39 - 110	
4-Chloro-3-methylphenol	667	422	63	48 - 110	
4-Chloroaniline	667	309	46	30 - 110	J
4-Chlorophenyl phenyl ether	667	510	77	40 - 110	
4-Nitroaniline	667	459	69	48 - 110	J
4-Nitrophenol	667	447	67	28 - 110	J
Acenaphthene	667	492	74	38 - 110	
Acenaphthylene	667	518	78	40 - 110	
Acetophenone	667	457	69	40 - 110	
Anthracene	667	554	83	48 - 110	
Atrazine	667	884	133	66 - 127	*
Benzaldehyde	667	411	62	32 - 110	
Benzo[a]anthracene	667	543	81	50 - 110	
Benzo[a]pyrene	667	528	79	44 - 110	
Benzo[b]fluoranthene	667	574	86	43 - 110	
Benzo[g,h,i]perylene	667	584	88	51 - 110	
Benzo[k]fluoranthene	667	561	84	38 - 105	
Bis(2-chloroethoxy)methane	667	431	65	32 - 110	
Bis(2-chloroethyl)ether	667	419	63	34 - 110	
Bis(2-ethylhexyl) phthalate	667	545	82	50 - 110	
Butyl benzyl phthalate	667	552	83	51 - 110	
Caprolactam	667	668	100	44 - 114	
Carbazole	667	530	80	50 - 110	

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Lab Control Sample - Batch: 240-78126

Method: 8270C
Preparation: 3540C

Lab Sample ID:	LCS 240-78126/24-A	Analysis Batch:	240-78585	Instrument ID:	A4AG2
Client Matrix:	Solid	Prep Batch:	240-78126	Lab File ID:	0318005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	03/18/2013 1028	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	03/13/2013 0848			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chrysene	667	570	86	50 - 110	
Dibenz(a,h)anthracene	667	588	88	51 - 110	
Dibenzofuran	667	520	78	43 - 110	
Diethyl phthalate	667	565	85	52 - 110	
Dimethyl phthalate	667	552	83	50 - 110	
Di-n-butyl phthalate	667	567	85	51 - 110	
Di-n-octyl phthalate	667	592	89	48 - 110	
Fluoranthene	667	577	86	51 - 110	
Fluorene	667	541	81	46 - 110	
Hexachlorobenzene	667	500	75	43 - 110	
Hexachlorobutadiene	667	409	61	29 - 110	
Hexachlorocyclopentadiene	667	362	54	12 - 110	J
Hexachloroethane	667	427	64	30 - 110	
Indeno[1,2,3-cd]pyrene	667	560	84	50 - 110	
Isophorone	667	451	68	36 - 110	
Naphthalene	667	451	68	36 - 110	
Nitrobenzene	667	423	63	32 - 110	
N-Nitrosodi-n-propylamine	667	410	61	38 - 110	
N-Nitrosodiphenylamine	667	461	69	46 - 110	
Pentachlorophenol	667	408	61	10 - 110	
Phenol	667	363	54	38 - 110	
Phenanthrene	667	513	77	49 - 110	
Pyrene	667	539	81	49 - 110	
3 & 4 Methylphenol	1330	749	56	40 - 110	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	66	24 - 110
2-Fluorophenol (Surr)	55	24 - 110
2,4,6-Tribromophenol (Surr)	59	10 - 110
Nitrobenzene-d5 (Surr)	65	20 - 110
Phenol-d5 (Surr)	55	26 - 110
Terphenyl-d14 (Surr)	86	36 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-78126

Method: 8270C
Preparation: 3540C

MS Lab Sample ID:	240-21857-B-4-B MS	Analysis Batch:	240-78585	Instrument ID:	A4AG2
Client Matrix:	Solid	Prep Batch:	240-78126	Lab File ID:	0318012.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	03/18/2013 1300			Final Weight/Volume:	2 mL
Prep Date:	03/13/2013 0848			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	240-21857-B-4-C MSD	Analysis Batch:	240-78585	Instrument ID:	A4AG2
Client Matrix:	Solid	Prep Batch:	240-78126	Lab File ID:	0318013.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.03 g
Analysis Date:	03/18/2013 1322			Final Weight/Volume:	2 mL
Prep Date:	03/13/2013 0848			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,2'-oxybis[1-chloropropane]	52	58	11 - 110	11	42		
2,4,5-Trichlorophenol	58	57	10 - 117	2	99		
2,4,6-Trichlorophenol	55	54	10 - 110	2	38		
2,4-Dichlorophenol	55	59	10 - 110	7	34		
2,4-Dimethylphenol	46	49	10 - 110	6	31	J	J
2,4-Dinitrophenol	46	50	10 - 110	8	99	J	J
2,4-Dinitrotoluene	73	72	32 - 110	2	30		
2,6-Dinitrotoluene	74	76	35 - 110	2	30		
2-Chloronaphthalene	60	64	28 - 110	5	30		
2-Chlorophenol	49	51	10 - 110	5	47	J	
2-Methylnaphthalene	68	72	10 - 133	6	42		
2-Methylphenol	48	52	24 - 110	8	51	J	
2-Nitroaniline	66	63	39 - 110	6	31	J	J
2-Nitrophenol	50	58	10 - 110	14	49		
3,3'-Dichlorobenzidine	45	45	10 - 110	1	56	J	J
3-Nitroaniline	61	61	10 - 110	1	30	J	J
4,6-Dinitro-2-methylphenol	38	43	10 - 110	12	55	J	J
4-Bromophenyl phenyl ether	64	68	33 - 110	6	30		
4-Chloro-3-methylphenol	57	59	25 - 110	4	54		
4-Chloroaniline	49	50	10 - 110	1	36	J	
4-Chlorophenyl phenyl ether	66	67	32 - 110	1	30		
4-Nitroaniline	67	66	10 - 110	2	48	J	J
4-Nitrophenol	60	58	10 - 113	4	49	J	J
Acenaphthene	64	66	22 - 110	4	99		
Acenaphthylene	67	69	24 - 110	2	99		
Anthracene	71	74	20 - 110	5	99		
Benzo[a]anthracene	73	74	10 - 122	2	99		
Benzo[a]pyrene	71	72	10 - 110	1	99		
Benzo[b]fluoranthene	79	78	12 - 118	2	99		
Benzo[g,h,i]perylene	55	54	10 - 117	1	99		
Benzo[k]fluoranthene	74	77	10 - 121	4	99		
Bis(2-chloroethoxy)methane	58	65	26 - 110	11	37		

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-78126

Method: 8270C
Preparation: 3540C

MS Lab Sample ID:	240-21857-B-4-B MS	Analysis Batch:	240-78585	Instrument ID:	A4AG2
Client Matrix:	Solid	Prep Batch:	240-78126	Lab File ID:	0318012.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	03/18/2013 1300			Final Weight/Volume:	2 mL
Prep Date:	03/13/2013 0848			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	240-21857-B-4-C MSD	Analysis Batch:	240-78585	Instrument ID:	A4AG2
Client Matrix:	Solid	Prep Batch:	240-78126	Lab File ID:	0318013.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.03 g
Analysis Date:	03/18/2013 1322			Final Weight/Volume:	2 mL
Prep Date:	03/13/2013 0848			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Bis(2-chloroethyl)ether	54	58	21 - 110	7	55		
Bis(2-ethylhexyl) phthalate	68	74	40 - 110	7	30		
Butyl benzyl phthalate	77	81	44 - 110	4	30		
Chrysene	76	78	10 - 125	3	99		
Dibenz(a,h)anthracene	65	65	14 - 113	0	99		
Dibenzofuran	67	68	29 - 110	0	30		
Diethyl phthalate	72	74	42 - 110	3	30		
Dimethyl phthalate	71	72	41 - 110	1	30		
Di-n-butyl phthalate	76	79	43 - 110	4	30		
Di-n-octyl phthalate	90	89	24 - 119	1	30		
Fluoranthene	77	80	10 - 110	4	99		
Fluorene	70	72	23 - 110	2	99		
Hexachlorobenzene	65	67	34 - 110	3	30		
Hexachlorobutadiene	56	62	25 - 110	10	34		
Hexachlorocyclopentadiene	18	21	10 - 110	15	79	J	J
Hexachloroethane	53	61	12 - 110	13	50		
Indeno[1,2,3-cd]pyrene	59	60	10 - 114	1	99		
Isophorone	60	67	29 - 110	11	38		
Naphthalene	61	66	10 - 111	7	99		
Nitrobenzene	56	63	23 - 110	12	41		
N-Nitrosodi-n-propylamine	54	59	26 - 110	8	42		
N-Nitrosodiphenylamine	60	64	22 - 110	7	30		
Pentachlorophenol	44	32	10 - 110	32	50	J	J
Phenol	48	53	17 - 110	9	53	J	
Phenanthrene	67	69	10 - 166	4	99		
Pyrene	70	74	10 - 147	6	99		
3 & 4 Methylphenol	51	54	25 - 110	6	50		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	57	61	24 - 110
2-Fluorophenol (Surr)	49	55	24 - 110
2,4,6-Tribromophenol (Surr)	53	51	10 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Nitrobenzene-d5 (Surr)	59	66	20 - 110
Phenol-d5 (Surr)	49	53	26 - 110
Terphenyl-d14 (Surr)	76	80	36 - 110

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Method Blank - Batch: 240-78154

Method: WI-GRO
Preparation: 5035

Lab Sample ID:	MB 240-78154/1-A	Analysis Batch:	240-78734	Instrument ID:	YPID
Client Matrix:	Solid	Prep Batch:	240-78154	Lab File ID:	YF031907.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.00 g
Analysis Date:	03/19/2013 1331	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	03/13/2013 1013			Injection Volume:	
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
WI Gasoline Range Organics (C6-C10)	ND		0.32	10

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 240-78154

Method: WI-GRO
Preparation: 5035

LCS Lab Sample ID:	LCS 240-78154/2-A	Analysis Batch:	240-78734	Instrument ID:	YPID
Client Matrix:	Solid	Prep Batch:	240-78154	Lab File ID:	YF031908.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.00 g
Analysis Date:	03/19/2013 1407	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	03/13/2013 1013			Injection Volume:	
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 240-78154/3-A	Analysis Batch:	240-78734	Instrument ID:	YPID
Client Matrix:	Solid	Prep Batch:	240-78154	Lab File ID:	YF031910.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.00 g
Analysis Date:	03/19/2013 1520	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	03/13/2013 1013			Injection Volume:	
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
WI Gasoline Range Organics (C6-C10)	101	104	80 - 120	3	20		

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Method Blank - Batch: 240-78027

Method: WI-DRO
Preparation: WI DRO PREP

Lab Sample ID:	MB 240-78027/2-A	Analysis Batch:	240-78172	Instrument ID:	A2HP5F
Client Matrix:	Solid	Prep Batch:	240-78027	Lab File ID:	P5F13012.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25.00 g
Analysis Date:	03/13/2013 2200	Units:	mg/Kg	Final Weight/Volume:	1 mL
Prep Date:	03/12/2013 1127			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
WI Diesel Range Organics (C10-C28)	1.77	J	1.2	9.6

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 240-78027

Method: WI-DRO
Preparation: WI DRO PREP

LCS Lab Sample ID:	LCS 240-78027/3-A	Analysis Batch:	240-78172	Instrument ID:	A2HP5F
Client Matrix:	Solid	Prep Batch:	240-78027	Lab File ID:	P5F13010.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25.00 g
Analysis Date:	03/13/2013 2101	Units:	mg/Kg	Final Weight/Volume:	1 mL
Prep Date:	03/12/2013 1127			Injection Volume:	1 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 240-78027/4-A	Analysis Batch:	240-78172	Instrument ID:	A2HP5F
Client Matrix:	Solid	Prep Batch:	240-78027	Lab File ID:	P5F13013.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25.00 g
Analysis Date:	03/13/2013 2230	Units:	mg/Kg	Final Weight/Volume:	1 mL
Prep Date:	03/12/2013 1127			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
WI Diesel Range Organics (C10-C28)	99	102	70 - 120	3	20		

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Method Blank - Batch: 240-78008

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 240-78008/1-A	Analysis Batch:	240-78244	Instrument ID:	I6
Client Matrix:	Solid	Prep Batch:	240-78008	Lab File ID:	I60313A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	03/13/2013 0706	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/12/2013 1017				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Barium	0.106	J	0.071	20
Cadmium	ND		0.036	0.20
Chromium	ND		0.20	0.50
Silver	ND		0.10	0.50
Arsenic	ND		0.30	1.0
Lead	ND		0.19	0.30
Selenium	ND		0.45	0.50

Lab Control Sample - Batch: 240-78008

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 240-78008/2-A	Analysis Batch:	240-78244	Instrument ID:	I6
Client Matrix:	Solid	Prep Batch:	240-78008	Lab File ID:	I60313A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	03/13/2013 0712	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/12/2013 1017				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Barium	200	193	96	80 - 120	
Cadmium	5.00	4.92	98	80 - 120	
Chromium	20.0	20.0	100	80 - 120	
Silver	5.00	5.07	101	80 - 120	
Arsenic	200	189	94	80 - 120	
Lead	50.0	48.1	96	80 - 120	
Selenium	200	188	94	80 - 120	

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-78008

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	240-21829-1	Analysis Batch:	240-78244	Instrument ID:	I6
Client Matrix:	Solid	Prep Batch:	240-78008	Lab File ID:	I60313A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.06 g
Analysis Date:	03/13/2013 0730			Final Weight/Volume:	100 mL
Prep Date:	03/12/2013 1017				
Leach Date:	N/A				

MSD Lab Sample ID:	240-21829-1	Analysis Batch:	240-78244	Instrument ID:	I6
Client Matrix:	Solid	Prep Batch:	240-78008	Lab File ID:	I60313A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.06 g
Analysis Date:	03/13/2013 0736			Final Weight/Volume:	100 mL
Prep Date:	03/12/2013 1017				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Barium	88	85	75 - 125	3	20		
Cadmium	87	87	75 - 125	0	20		
Chromium	108	105	75 - 125	2	20		
Silver	92	92	75 - 125	1	20		
Arsenic	87	87	75 - 125	0	20		
Lead	94	143	75 - 125	37	20		F
Selenium	86	86	75 - 125	0	20		

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Method Blank - Batch: 240-78015

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 240-78015/1-A	Analysis Batch:	240-78388	Instrument ID:	H1
Client Matrix:	Solid	Prep Batch:	240-78015	Lab File ID:	031314A-HG1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	03/14/2013 1223	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/12/2013 1410				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.015	0.10

Lab Control Sample - Batch: 240-78015

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 240-78015/2-A	Analysis Batch:	240-78388	Instrument ID:	H1
Client Matrix:	Solid	Prep Batch:	240-78015	Lab File ID:	031314A-HG1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	03/14/2013 1227	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/12/2013 1410				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.833	0.823	99	73 - 121	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-78015

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	240-21829-1	Analysis Batch:	240-78388	Instrument ID:	H1
Client Matrix:	Solid	Prep Batch:	240-78015	Lab File ID:	031314A-HG1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.66 g
Analysis Date:	03/14/2013 1230			Final Weight/Volume:	100 mL
Prep Date:	03/12/2013 1410				
Leach Date:	N/A				

MSD Lab Sample ID:	240-21829-1	Analysis Batch:	240-78388	Instrument ID:	H1
Client Matrix:	Solid	Prep Batch:	240-78015	Lab File ID:	031314A-HG1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.66 g
Analysis Date:	03/14/2013 1231			Final Weight/Volume:	100 mL
Prep Date:	03/12/2013 1410				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	113	278	11 - 192	84	20		F

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Method Blank - Batch: 240-78469

Method: 9012A
Preparation: 9012A

Lab Sample ID:	MB 240-78469/1-A	Analysis Batch:	240-78524	Instrument ID:	SAURON
Client Matrix:	Solid	Prep Batch:	240-78469	Lab File ID:	031513 CN SOLID.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.01 mL
Analysis Date:	03/15/2013 1117	Units:	mg/Kg	Final Weight/Volume:	25 mL
Prep Date:	03/15/2013 0936				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Cyanide, Total	ND		0.099	0.50

Lab Control Sample - Batch: 240-78469

Method: 9012A
Preparation: 9012A

Lab Sample ID:	LCS 240-78469/2-A	Analysis Batch:	240-78524	Instrument ID:	SAURON
Client Matrix:	Solid	Prep Batch:	240-78469	Lab File ID:	031513 CN SOLID.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.02 mL
Analysis Date:	03/15/2013 1117	Units:	mg/Kg	Final Weight/Volume:	25 mL
Prep Date:	03/15/2013 0936				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	2.44	1.69	69	68 - 123	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-78469

Method: 9012A
Preparation: 9012A

MS Lab Sample ID:	240-21829-1	Analysis Batch:	240-78524	Instrument ID:	SAURON
Client Matrix:	Solid	Prep Batch:	240-78469	Lab File ID:	031513 CN SOLID.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.03 mL
Analysis Date:	03/15/2013 1117			Final Weight/Volume:	25 mL
Prep Date:	03/15/2013 0936				
Leach Date:	N/A				
MSD Lab Sample ID:	240-21829-1	Analysis Batch:	240-78524	Instrument ID:	SAURON
Client Matrix:	Solid	Prep Batch:	240-78469	Lab File ID:	031513 CN SOLID.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.04 mL
Analysis Date:	03/15/2013 1117			Final Weight/Volume:	25 mL
Prep Date:	03/15/2013 0936				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Cyanide, Total	81	86	50 - 134	4	20		

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Method Reporting Limit Check - Batch: 240-78524

Method: 9012A
Preparation: N/A

Lab Sample ID:	MRL 240-78524/6	Analysis Batch:	240-78524	Instrument ID:	SAURON
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	031513 CN SOLID.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2 mL
Analysis Date:	03/15/2013 1030	Units:	mg/L	Final Weight/Volume:	2 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total	0.0100	0.00942	94	70 - 130	J

Client: ARCADIS U.S., Inc. Job Number: 240-21829-1

Duplicate - Batch: 240-77923 **Method: Moisture**
Preparation: N/A

Lab Sample ID:	240-21783-D-3 DU	Analysis Batch:	240-77923	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	03/11/2013 1648	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	83	82	0.9	20	
Percent Moisture	17	18	4	20	

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: North Canton, OH
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: ARCADIS	Client Project Manager: Angharad Pagnon	Site Contact: Rob Ellis	Lab Contact: Denise Pohl	COC No: 023307
Address: 430 First Ave N, Ste 720	Telephone: 612-339-9434	Telephone: 284-994-2240	Telephone: 330-966-9789	1 of 1 COCs
City/State/Zip: Minneapolis, MN 55401	Email: Angharad.Pagnon@arcadis-us.com	Analysis Turnaround Time (in BUS days)		For laboratory use only
Phone: 612-339-9434	Method of Shipment/Carrier:	TAT if different from below ☐ 3 weeks ☒ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client: ☐ Lab sampling: ☐ Job/SDG No.:
Project Name: Ford TCAP	Shipping/Tracking No:			
Project Number: DE000440.0001				
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other: MeOH	Filtered Sample (Y/N)	Composite C/Grab G	Analyses: VOC (8260)	SVOC (8270C)	RCRA metals (6010B)	DRO (WI Method)	GRO (WI Method)	Cyanide	Lead (6010B)	TCLP Lead	VOC/GRO	Moisture Content	Sample Specific Notes / Special Instructions:
BH-PT8(0-2)(20130307)	3/7/13	1100				X							7	3	N	G	2	1	1	1	1	1	1	1		1	*Please hold TCLP Lead analysis until notice
Methanol Blank	3/7/13	—		X										1											1		

240-21829 Chain of Custody

Page 46 of 48

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

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

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Kelly Cain	ARCADIS	3/7/13		TAmerica	3-8-13 1230
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAmerica	3-8-13 1930		TAC	3/9/13 930
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Canton Sample Receipt Form/Narrative Login # : 21829

Client ARCADIS Site Name _____ By: _____ (Signature)

Cooler Received on 3-9-13 Opened on 3-9-13

FedEx: 1st Grd (Exp) UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box (Client Cooler) Box Other _____

Packing material used: (Bubble Wrap) Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF –2 °C) Observed Sample Temp. 2.7 °C	Corrected Sample Temp. 0.7 °C	☐ Multiple on Back
IR GUN# 4G	(CF 0 °C) Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	
IR GUN# 5G	(CF 0 °C) Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	
IR GUN# 8	(CF 0 °C) Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C	

2. Were custody seals on the outside of the cooler(s)?	If Yes Quantity _____	Yes (No)
-Were custody seals on the outside of the cooler(s) signed & dated?		Yes No (NA)
-Were custody seals on the bottle(s)?		Yes (No)
3. Shippers' packing slip attached to the cooler(s)?		(Yes) No
4. Did custody papers accompany the sample(s)?		(Yes) No
5. Were the custody papers relinquished & signed in the appropriate place?		Yes No
6. Did all bottles arrive in good condition (Unbroken)?		(Yes) No
7. Could all bottle labels be reconciled with the COC?		(Yes) No
8. Were correct bottle(s) used for the test(s) indicated?		(Yes) No
9. Sufficient quantity received to perform indicated analyses?		(Yes) No
10. Were sample(s) at the correct pH upon receipt?		Yes No (NA)
11. Were VOAs on the COC?		Yes (No)
12. Were air bubbles >6 mm in any VOA vials?		Yes No (NA)
13. Was a trip blank present in the cooler(s)?		Yes No

Contacted PM DSP Date 3/11/13 by CSL (via Verbal) Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

1x40 Trip blank marked for VOC/GRO will log for VOC only

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ______________________________ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 031512-HNO3; Sulfuric Acid Lot# 051012-H2SO4; Sodium Hydroxide Lot# 121809 -NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? ______________

Client ID	pH	Date	Initials

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant

SOP: NC-SC-0005, Sample Receiving
C:\Users\livengoodc\AppData\Local\Microsoft\Windows\Temporary Internet Files\OLKD16\COOLER_TestAmerica_Rev 88_110712 rls.doc

March 25, 2013

Rob Ellis
ARCADIS
430 First Avenue North, Ste 720
Minneapolis, MN US 55401

Enovis project ID: E200572
Project: FORD-Twin Cities Assembly Plant
Project number: DE000440.0001.00005
Laboratory: TestAmerica - North Canton
Laboratory submittal: 21829-1
Sample date: 2013-03-07
Report received by Enovis: 2013-03-25
Initial Data Verification completed by Enovis: 2013-03-25

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the Enovis Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

1 Trip blank sample(s) was analyzed for GCMS VOC parameter(s).
1 Solid sample(s) was analyzed for GCMS VOC, GCMS SVOC, GC VOC, GC Other, Metals and General Chemistry parameter(s).

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, LCS/LCD RPD, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Qualifiers added during verification have been added to the electronic data which is available for download from the Enovis CLMS. Refer to the attached table of analytical results that have been qualified during verification.

The following minor QC exceptions or missing information were noted:

GCMS SVOC method blank had a detection below the RL for bis-2-ethylhexylphthalate. Client sample -001 results for this analyte should be considered to be non-detect at the RL and qualified with a UB flag.

GCMS SVOC LCS recovery was an outlier biased high for atrazine. Qualification of client sample results was not required based on this high bias QC outlier.

DRO method blank had a detection below the RL. Qualification of client sample results was not required based on this method blank detection.

Metals method blank had a detection below the RL for barium. Qualification of client sample results was not required based on this method blank detection.

Metals MSD recoveries and MS/MSD RPD performed on client sample -001 were outliers with the recoveries biased high for lead and mercury. Client sample lead results only should be considered to be estimated and qualified with a J flag.

GCMS VOC trip blank had a detection below the RL for naphthalene. Qualification of client sample results was not required based on this trip blank detection.

The definitions of the qualifiers used for this data package are defined in the analytical report. Enovis valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory's analytical report access the Enovis CLMS at http://enovis-inc.com/enovis53/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

Enovis Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

SAMPLING AND ANALYSIS SUMMARY

Enovis Project ID: E200572
Laboratory: TestAmerica-North Canton
Laboratory Submittal: 21829-1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	Volatile Organics by GCMS	Semivolatiles by GCMS	Wisconsin GRO Method	Wisconsin DRO Method	Metals by ICP Spectroscopy	Mercury in Solid Waste	Total & Amenable Cyanides
240218291	BH-PT8(0-2)(20130307)	3/7/2013	11:00:00	X	X	X	X	X	X	X
240218292	METHANOL BLANK	3/7/2013	12:00:00	X						

Qualified Results Summary

Enovis Project ID: E200572
Laboratory: TestAmerica - North Canton
Laboratory Submittal: 21829-1

Sample Name: BH-PT8(0-2)(20130307)
Lab Sample ID: 240218291
Sample Date: 3/7/2013

Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC					
OSW-8270C					
Bis(2-ethylhexyl) phthalate	117-81-7	69	390	ug/kg	**UB**
Metals					
OSW-6010B					
Lead	7439-92-1	7.7	0.34	mg/kg	**J**

GCMS SVOC method blank had a detection below the RL for bis-2-ethylhexylphthalate. Client sample -001 results for this analyte should be considered to be non-detect at the RL and qualified with a **UB** flag.

Metals MSD recoveries and MS/MSD RPD performed on client sample -001 were outliers with the recoveries biased high for lead and mercury. Client sample lead results only should be considered to be estimated and qualified with a **J** flag.

Analytical Results Summary

Enovis Project ID: E200572
Laboratory: TestAmerica - North Canton
Laboratory Submittal: 21829-1

		Sample Name:	BH-PT8(0-2)(20130307)				METHANOL BLANK			
		Lab Sample ID:	240218291				240218292			
		Sample Date:	3/7/2013				3/7/2013			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC									
OSW-8260B									
1,1,1,2-Tetrachloroethane	630-20-6	ND	270	ug/kg	---	ND	250	ug/kg	---
1,1,1-Trichloroethane	71-55-6	ND	270	ug/kg	---	ND	250	ug/kg	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	270	ug/kg	---	ND	250	ug/kg	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	270	ug/kg	---	ND	250	ug/kg	---
1,1,2-Trichloroethane	79-00-5	ND	270	ug/kg	---	ND	250	ug/kg	---
1,1-Dichloroethane	75-34-3	ND	270	ug/kg	---	ND	250	ug/kg	---
1,1-Dichloroethene	75-35-4	ND	270	ug/kg	---	ND	250	ug/kg	---
1,1-Dichloropropene	563-58-6	ND	270	ug/kg	---	ND	250	ug/kg	---
1,2,3-Trichlorobenzene	87-61-6	ND	270	ug/kg	---	ND	250	ug/kg	---
1,2,3-Trichloropropane	96-18-4	ND	270	ug/kg	---	ND	250	ug/kg	---
1,2,4-Trichlorobenzene	120-82-1	ND	270	ug/kg	---	ND	250	ug/kg	---
1,2,4-Trimethylbenzene	95-63-6	ND	270	ug/kg	---	ND	250	ug/kg	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	550	ug/kg	---	ND	500	ug/kg	---
1,2-Dibromoethane	106-93-4	ND	270	ug/kg	---	ND	250	ug/kg	---
1,2-Dichlorobenzene	95-50-1	ND	270	ug/kg	---	ND	250	ug/kg	---
1,2-Dichloroethane	107-06-2	ND	270	ug/kg	---	ND	250	ug/kg	---
1,2-Dichloropropane	78-87-5	ND	270	ug/kg	---	ND	250	ug/kg	---
1,3,5-Trimethylbenzene	108-67-8	ND	270	ug/kg	---	ND	250	ug/kg	---
1,3-Dichlorobenzene	541-73-1	ND	270	ug/kg	---	ND	250	ug/kg	---
1,3-Dichloropropane	142-28-9	ND	270	ug/kg	---	ND	250	ug/kg	---
1,4-Dichlorobenzene	106-46-7	ND	270	ug/kg	---	ND	250	ug/kg	---
2,2-Dichloropropane	594-20-7	ND	270	ug/kg	---	ND	250	ug/kg	---
2-Butanone (MEK)	78-93-3	ND	1100	ug/kg	---	ND	1000	ug/kg	---
2-Chlorotoluene	95-49-8	ND	270	ug/kg	---	ND	250	ug/kg	---
2-Hexanone	591-78-6	ND	1100	ug/kg	---	ND	1000	ug/kg	---
4-Chlorotoluene	106-43-4	ND	270	ug/kg	---	ND	250	ug/kg	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	1100	ug/kg	---	ND	1000	ug/kg	---
Acetone	67-64-1	ND	1100	ug/kg	---	ND	1000	ug/kg	---
Allyl chloride	107-05-1	ND	550	ug/kg	---	ND	500	ug/kg	---
Benzene	71-43-2	ND	270	ug/kg	---	ND	250	ug/kg	---
Bromobenzene	108-86-1	ND	270	ug/kg	---	ND	250	ug/kg	---
Bromochloromethane	74-97-5	ND	270	ug/kg	---	ND	250	ug/kg	---
Bromodichloromethane	75-27-4	ND	270	ug/kg	---	ND	250	ug/kg	---
Bromoform	75-25-2	ND	270	ug/kg	---	ND	250	ug/kg	---
Bromomethane	74-83-9	ND	270	ug/kg	---	ND	250	ug/kg	---
Carbon disulfide	75-15-0	ND	270	ug/kg	---	ND	250	ug/kg	---
Carbon tetrachloride	56-23-5	ND	270	ug/kg	---	ND	250	ug/kg	---
Chlorobenzene	108-90-7	ND	270	ug/kg	---	ND	250	ug/kg	---
Chlorodibromomethane	124-48-1	ND	270	ug/kg	---	ND	250	ug/kg	---
Chloroethane	75-00-3	ND	270	ug/kg	---	ND	250	ug/kg	---
Chloroform	67-66-3	ND	270	ug/kg	---	ND	250	ug/kg	---
Chloromethane	74-87-3	ND	270	ug/kg	---	ND	250	ug/kg	---
cis-1,2-Dichloroethene	156-59-2	ND	270	ug/kg	---	ND	250	ug/kg	---
cis-1,3-Dichloropropene	10061-01-5	ND	270	ug/kg	---	ND	250	ug/kg	---
Cyclohexane	110-82-7	ND	550	ug/kg	---	ND	500	ug/kg	---
Dibromomethane	74-95-3	ND	270	ug/kg	---	ND	250	ug/kg	---
Dichlorodifluoromethane	75-71-8	ND	270	ug/kg	---	ND	250	ug/kg	---
Dichlorofluoromethane	75-43-4	ND	550	ug/kg	---	ND	500	ug/kg	---
Ethyl ether	60-29-7	ND	550	ug/kg	---	ND	500	ug/kg	---
Ethylbenzene	100-41-4	ND	270	ug/kg	---	ND	250	ug/kg	---
Hexachlorobutadiene	87-68-3	ND	270	ug/kg	---	ND	250	ug/kg	---
Isopropylbenzene	98-82-8	ND	270	ug/kg	---	ND	250	ug/kg	---
m-Xylene & p-Xylene	179601-23-1	ND	550	ug/kg	---	ND	500	ug/kg	---
Methyl acetate	79-20-9	80	550	ug/kg	J	ND	500	ug/kg	---
Methyl tert butyl ether	1634-04-4	ND	270	ug/kg	---	ND	250	ug/kg	---
Methylcyclohexane	108-87-2	ND	550	ug/kg	---	ND	500	ug/kg	---
Methylene Chloride	75-09-2	ND	270	ug/kg	---	ND	250	ug/kg	---
n-Butylbenzene	104-51-8	ND	270	ug/kg	---	ND	250	ug/kg	---
N-Propylbenzene	103-65-1	ND	270	ug/kg	---	ND	250	ug/kg	---
Naphthalene	91-20-3	ND	270	ug/kg	---	9.3	250	ug/kg	J
o-Xylene	95-47-6	ND	270	ug/kg	---	ND	250	ug/kg	---
p-Isopropyltoluene	99-87-6	ND	270	ug/kg	---	ND	250	ug/kg	---
sec-Butylbenzene	135-98-8	ND	270	ug/kg	---	ND	250	ug/kg	---
Styrene	100-42-5	ND	270	ug/kg	---	ND	250	ug/kg	---
tert-Butylbenzene	98-06-6	ND	270	ug/kg	---	ND	250	ug/kg	---
Tetrachloroethene	127-18-4	ND	270	ug/kg	---	ND	250	ug/kg	---
Tetrahydrofuran	109-99-9	ND	1100	ug/kg	---	ND	1000	ug/kg	---
Toluene	108-88-3	ND	270	ug/kg	---	ND	250	ug/kg	---
trans-1,2-Dichloroethene	156-60-5	ND	270	ug/kg	---	ND	250	ug/kg	---
trans-1,3-Dichloropropene	10061-02-6	ND	270	ug/kg	---	ND	250	ug/kg	---
Trichloroethene	79-01-6	ND	270	ug/kg	---	ND	250	ug/kg	---
Trichlorofluoromethane	75-69-4	ND	270	ug/kg	---	ND	250	ug/kg	---
Vinyl chloride	75-01-4	ND	270	ug/kg	---	ND	250	ug/kg	---

Analytical Results Summary

Enovis Project ID: E200572
Laboratory: TestAmerica - North Canton
Laboratory Submittal: 21829-1

		Sample Name:	BH-PT8(0-2)(20130307)				METHANOL BLANK			
		Lab Sample ID:	240218291				240218292			
		Sample Date:	3/7/2013				3/7/2013			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS SVOC									
OSW-8270C									
1,1'-Biphenyl	92-52-4	ND	390	ug/kg	---				
2,2'-oxybis[1-chloropropane]	108-60-1	ND	390	ug/kg	---				
2,4,5-Trichlorophenol	95-95-4	ND	390	ug/kg	---				
2,4,6-Trichlorophenol	88-06-2	ND	390	ug/kg	---				
2,4-Dichlorophenol	120-83-2	ND	390	ug/kg	---				
2,4-Dimethylphenol	105-67-9	ND	390	ug/kg	---				
2,4-Dinitrophenol	51-28-5	ND	1900	ug/kg	---				
2,4-Dinitrotoluene	121-14-2	ND	390	ug/kg	---				
2,6-Dinitrotoluene	606-20-2	ND	390	ug/kg	---				
2-Chloronaphthalene	91-58-7	ND	390	ug/kg	---				
2-Chlorophenol	95-57-8	ND	390	ug/kg	---				
2-Methylnaphthalene	91-57-6	9.9	390	ug/kg	J				
2-Methylphenol	95-48-7	ND	390	ug/kg	---				
2-Nitroaniline	88-74-4	ND	1900	ug/kg	---				
2-Nitrophenol	88-75-5	ND	390	ug/kg	---				
3 & 4 Methylphenol	65794-96-9	ND	480	ug/kg	---				
3,3'-Dichlorobenzidine	91-94-1	ND	1900	ug/kg	---				
3-Nitroaniline	99-09-2	ND	1900	ug/kg	---				
4,6-Dinitro-2-methylphenol	534-52-1	ND	1900	ug/kg	---				
4-Bromophenyl phenyl ether	101-55-3	ND	390	ug/kg	---				
4-Chloro-3-methylphenol	59-50-7	ND	390	ug/kg	---				
4-Chloroaniline	106-47-8	ND	390	ug/kg	---				
4-Chlorophenyl phenyl ether	7005-72-3	ND	390	ug/kg	---				
4-Nitroaniline	100-01-6	ND	1900	ug/kg	---				
4-Nitrophenol	100-02-7	ND	1900	ug/kg	---				
Acenaphthene	83-32-9	15	390	ug/kg	J				
Acenaphthylene	208-96-8	5.1	390	ug/kg	J				
Acetophenone	98-86-2	ND	390	ug/kg	---				
Anthracene	120-12-7	19	390	ug/kg	J				
Atrazine	1912-24-9	ND	390	ug/kg	---				
Benzaldehyde	100-52-7	ND	390	ug/kg	---				
Benzo[a]anthracene	56-55-3	76	390	ug/kg	J				
Benzo[a]pyrene	50-32-8	95	390	ug/kg	J				
Benzo[b]fluoranthene	205-99-2	120	390	ug/kg	J				
Benzo[g,h,i]perylene	191-24-2	53	390	ug/kg	J				
Benzo[k]fluoranthene	207-08-9	53	390	ug/kg	J				
Bis(2-chloroethoxy)methane	111-91-1	ND	390	ug/kg	---				
Bis(2-chloroethyl)ether	111-44-4	ND	390	ug/kg	---				
Bis(2-ethylhexyl) phthalate	117-81-7	69	390	ug/kg	UB				
Butyl benzyl phthalate	85-68-7	ND	390	ug/kg	---				
Caprolactam	105-60-2	ND	390	ug/kg	---				
Carbazole	86-74-8	ND	390	ug/kg	---				
Chrysene	218-01-9	100	390	ug/kg	J				
Di-n-butyl phthalate	84-74-2	ND	390	ug/kg	---				
Di-n-octyl phthalate	117-84-0	ND	390	ug/kg	---				
Dibenz(a,h)anthracene	53-70-3	ND	390	ug/kg	---				
Dibenzofuran	132-64-9	11	390	ug/kg	J				
Diethyl phthalate	84-66-2	ND	390	ug/kg	---				
Dimethyl phthalate	131-11-3	ND	390	ug/kg	---				
Fluoranthene	206-44-0	160	390	ug/kg	J				
Fluorene	86-73-7	15	390	ug/kg	J				
Hexachlorobenzene	118-74-1	ND	390	ug/kg	---				
Hexachlorobutadiene	87-68-3	ND	390	ug/kg	---				
Hexachlorocyclopentadiene	77-47-4	ND	1900	ug/kg	---				
Hexachloroethane	67-72-1	ND	390	ug/kg	---				
Indeno[1,2,3-cd]pyrene	193-39-5	53	390	ug/kg	J				
Isophorone	78-59-1	ND	390	ug/kg	---				
N-Nitrosodi-n-propylamine	621-64-7	ND	390	ug/kg	---				
N-Nitrosodiphenylamine	86-30-6	ND	390	ug/kg	---				
Naphthalene	91-20-3	9.4	390	ug/kg	J				
Nitrobenzene	98-95-3	ND	390	ug/kg	---				
Pentachlorophenol	87-86-5	ND	390	ug/kg	---				
Phenanthrene	85-01-8	94	390	ug/kg	J				
Phenol	108-95-2	ND	390	ug/kg	---				
Pyrene	129-00-0	130	390	ug/kg	J				

Analytical Results Summary

Enovis Project ID: E200572
Laboratory: TestAmerica - North Canton
Laboratory Submittal: 21829-1

		Sample Name:	BH-PT8(0-2)(20130307)				METHANOL BLANK			
		Lab Sample ID:	240218291				240218292			
		Sample Date:	3/7/2013				3/7/2013			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC VOC										
	PUBL-SW-140									
	WI Gasoline Range Organics (C6-C10)	E-1005	ND	11	mg/kg	---				
GC Other										
	PUBL-SW-141									
	WI Diesel Range Organics (C10-C28)	E-1004	14	9.8	mg/kg	---				
Metals										
	OSW-6010B									
	Arsenic	7440-38-2	5.1	1.1	mg/kg	---				
	Barium	7440-39-3	64	23	mg/kg	---				
	Cadmium	7440-43-9	0.20	0.23	mg/kg	J				
	Chromium	7440-47-3	12	0.57	mg/kg	---				
	Lead	7439-92-1	7.7	0.34	mg/kg	J				
	Selenium	7782-49-2	ND	0.57	mg/kg	---				
	Silver	7440-22-4	ND	0.57	mg/kg	---				
	OSW-7471A									
	Mercury	7439-97-6	ND	0.12	mg/kg	---				
General Chemistry										
	OSW-9012A									
	Cyanide, Total	57-12-5	ND	0.59	mg/kg	---				