



Ruth Curley, P.E.  
Environmental Engineer  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway  
Albany, New York 12233-7016

ARCADIS US, Inc.  
10 Friends Lane  
Suite 200  
Newtown  
Pennsylvania 18940  
Tel 267 685 1874  
Fax 267 685 1801  
www.arcadis-us.com

Subject:

Summary Report on Surface Soil Sampling Activities, Former Lockheed Martin Facility, Utica, New York

Dear Ms. Curley:

As requested by the New York State Department of Environmental Conservation (NYSDEC), ARCADIS U.S., Inc. (ARCADIS) has conducted surface soil sampling on behalf of Lockheed Martin Corporation (Lockheed Martin) for the Former Lockheed Martin Facility in Utica, New York (the "Site"). Surface soil sampling was conducted in October 2013 consistent with the NYSDEC-approved *Surface Soil Sampling Plan* (ARCADIS 2013). This report provides the results of that sampling, a comparison of the results to applicable regulatory standards, and evaluates the potential for human exposure to Site soils based on current and anticipated future land use. This evaluation is conducted consistent with NYSDEC and New York State Department of Health (NYSDOH) guidance presented in NYSDEC's *Technical Guidance for Site Investigation and Remediation* (DER-10, May 2010).

## Background

As requested by NYSDEC in its July 16, 2013 letter to Lockheed Martin, a surface soil sampling plan was developed to evaluate surface soil quality across the Site. Surface soil sampling is being completed as part of overall site characterization activities to assist in the development of final remedial alternatives for the Site and in order to assess the potential human exposure resulting from known soil and groundwater contamination at the Site.

## Land Use

Zoning ordinances for Utica and New Hartford limit the use of the Site to industrial and commercial uses. Furthermore, Site use is subject to a Restrictive Use Agreement attached to the 1996 deed delivered by Martin Marietta Corporation, a predecessor to Lockheed Martin, to Pinnacle Park, Inc. pursuant to which Martin Marietta transferred its entire Utica facility comprised of 67.72 acres to Pinnacle

ENVIRONMENTAL

Date:

December 27, 2013

Contact:

Jeffrey J. Bonsteel

Phone:

267.685.1874

Email:

jeffrey.bonsteel@arcadis-us.com

Our reference:

NJ001040.0001

Imagine the result

Park. The Restrictive Use Agreement prohibits use of the former Martin Marietta land, which includes the Site, for residential purposes. Current land use at the Site is industrial. Specifically, the eastern portion of the Site is occupied by a large, active manufacturing facility with associated parking lots (operated by ConMed Corporation). The western portion of the Site is undeveloped and reflects a more natural setting (e.g., mature trees, grassy areas), but also includes an asphalt parking lot and two small buildings. Although the eastern portion of the Site is fenced, the fencing does not extend around the entire perimeter of the Site and as such, does not entirely hinder Site access. Future land use at the Site is expected to be consistent with current land use. Surrounding land use is a mixture of industrial, commercial and residential properties, with isolated pockets of undeveloped land.

### Surface Soil Sampling

Surface soil sampling was conducted at the Solvent Dock Area and the West Lot Site, as well as in areas that have not been identified as requiring remedial action, including paved and unpaved areas around the footprint of the former Lockheed Martin facility. Soil sampling locations are provided on the attached Figure 1. Soil samples were analyzed for Volatile Organic Compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260, Polychlorinated Biphenyls (PCBs) by USEPA Method 8082, silver and lead by USEPA Method 6010B, cyanide by USEPA Method 9012A, and hexavalent chromium by USEPA Method 7196A. The parameter list for sample analysis was selected consistent with the NYSDEC-approved *Corrective Measures Study Report* (March 2009), which has considered historical information on activities conducted at the Site as well as results of previous investigations completed and identification of known constituents in Site soil and groundwater. The justification of these sampling parameters was also documented in a letter from ARCADIS to NYSDEC on July 31, 2013 (*Sampling Parameters for Surface Soil Sampling*). NYSDEC and NYSDOH approved with comments the *Surface Soil Sampling Plan*, including the proposed suite of analytical parameters, in NYSDEC's letter dated September 13, 2013. In accordance with NYSDEC/NYSDOH's approval, soil samples were collected with Encore samplers (Method 5035). Soil samples taken for PCBs, metals, and cyanide analyses were generally collected from a depth of 0 to 2 inches below the grass/pavement cover. Soil samples taken for VOC analyses were generally collected from a depth of 0 to 6 inches below the grass/pavement cover. Table 1 presents the surface soil classification log. Samples were analyzed by Test America Laboratories, Inc. of Amherst, New York. Attachment 1 presents the laboratory analytical data report and Attachment 2 presents the Data Usability Summary Reports (DUSRs) for these surface soil data.

## Data Usability Summary

DUSRs were generated to summarize the analytical data and quality assurance/quality control (QA/QC) evaluation associated with the surface soil sampling conducted in October 2013. The soil data with applicable data qualification and data verification reports are summarized in the DUSRs included in Attachment 2.

The samples from the October 2013 surface soil sampling event were analyzed by TestAmerica Laboratories of Amherst, New York for the Site list of VOCs, PCBs, total metals and general chemistry analytes. Analyses were performed according to USEPA SW-846 Methods 8260C, 8082A, 6010C, 9012B and 7196A B. Data were reviewed and verified in accordance with Organic USEPA National Functional Guidelines (October 1999) and Inorganic USEPA National Functional Guidelines (July 2002).

Overall, the quality control data, as defined in the USEPA SW-846 Methods listed above and laboratory performance criteria, were within the guidelines specified in the method with the exception of a few minor QC deviations that warranted qualification of some of the data as estimated. Specifically, the VOC analyses for sample locations LMCU-SS-28 and LMCU-SS-3 were analyzed one day outside of holding time due to a lab analyst oversight. These deviations and others are detailed in the DUSRs.

The original total lead result for sample LMCU-SS-15 (1,090 milligrams per kilogram [mg/kg], estimated) was noted to have been unexpectedly elevated compared to all other surface sample results. Since no errors were detected, the sample was re-analyzed by the laboratory. The re-analyzed result (37.7 mg/kg, estimated) was more in-line with the matrix spike and matrix spike duplicate recoveries and was shown to be re-producible. The originally reported lead result for sample LMCU-SS-15 is likely elevated as a result of sample non-homogeneity of sample matrix.

All data for constituents of potential concern (COPCs) associated with the October 2013 surface soil sampling event are considered usable for the intended purpose.

## Soil Cleanup Objectives

Consistent with NYSDEC guidance and given the Site's historical and present use as well as its zoning, surface soils data are compared to industrial use Soil Cleanup Objectives (SCOs) (Table 2). These SCOs are protective of industrial adult workers and adolescent trespassers exposed to soils via incidental ingestion, dermal contact, and inhalation of soil-derived particulates and vapors (NYSDEC 2006). Although there are no current plans for commercial development, surface soils data are also compared to commercial SCOs to account for potential future commercial use of the

Site, given that the property is also zoned commercial (Table 2). Commercial SCOs are protective of adult workers and child visitors exposed to soils via incidental ingestion, dermal contact, and inhalation of soil-derived particulates and vapors (NYSDEC 2006).

Because zoning, a deed restriction, and anticipated future land use do not include future residential use of the Site, unrestricted and residential SCOs were not considered in the evaluation of surface soil data. Surface soil data were also not compared to SCOs for protection of groundwater because depth to groundwater at the Site is much lower (approximately 5 to 10 feet below ground surface [bgs]) than these surface soils (0 to 6 inches bgs). Additionally, Site groundwater is not used as a potable source and off-site groundwater migration is currently being addressed by the Groundwater Collection and Treatment System (GCTS). There is currently an ongoing groundwater sampling program being implemented at both the western portion (West Lot) and northern portion (Former Northern Perimeter Ditch and Solvent Dock) of the Site. Based on this information, SCOs that are protective of groundwater resources are not considered in this evaluation.

## Results

A total of 30 surface soil samples were collected across the Site. Table 2 presents the comparison of these surface soil data to industrial and commercial SCOs. As shown in Table 2, all of the surface soil data are below industrial SCOs.

Regarding commercial SCOs (Table 2), samples LMCU-SS-07, LMCU-SS-20, and LMCU-SS-21 exceed the commercial SCO of 1 mg/kg for PCBs. For inorganics, lead exceeds its associated commercial SCO in sample LMCU-SS-15. However, this elevated result was noted to likely be a result of sample non-homogeneity of sample matrix. No other results exceed commercial SCOs.

A previous evaluation of subsurface soils also indicated that soil concentrations were below industrial SCOs, as presented within the Corrective Measures Study (ARCADIS 2009) and the Former Northern Perimeter Ditch Supplemental Investigation Report (ARCADIS 2011).

## Exposure Assessment

An initial step in evaluating potential human exposure is to identify potentially complete exposure pathways. In accordance with NYSDEC (2010) DER-10 guidance, an exposure pathway is considered potentially complete if the following five elements exist:

- Contaminant source

- Contaminant release and transport mechanisms
- Point of exposure
- Route of exposure
- Receptor population

An exposure pathway may be eliminated from further evaluation when any one of the five elements comprising an exposure pathway has not existed in the past, does not exist in the present, and can reasonably be anticipated to not exist in the future (NYSDEC 2010). Current land use at the Site is industrial, specifically in the eastern portion of the Site. There is no current use of the West Lot or the western area of the Site. Current receptors at the Site include: industrial workers, utility workers (i.e., workers involved in short-term intrusive activities to repair/improve current infrastructure), grounds maintenance workers, and hypothetical adolescent trespassers (i.e., non-worker individuals that may enter the property, specifically in the West Lot). Future land use is expected to be consistent with current land use. Therefore, potential future receptors at the Site similarly include: industrial workers, utility workers, grounds maintenance workers, and adolescent trespassers. Reasonably anticipated future land use may include commercial development. In the event of future development, construction workers (i.e., workers involved in longer term intrusive activities) could represent future receptors at the Site. Potential future land use may also include commercial use and as such, commercial workers and visitors represent another potential future receptor group. The following text discusses the potential for exposure of each of the identified receptors and receptor groups.

#### Industrial Workers

Current and future industrial workers are assumed to represent individuals who are employed at the French Road facility. These workers are assumed to represent indoor workers that spend most of their time in the building. The majority of the eastern portion of the Site is paved with impervious surfaces (e.g., asphalt) with the exception of several small, interspersed grassy areas along the Site perimeter. Industrial receptors would not be expected to frequent the West Lot or come into contact with soil anywhere on the Site during daily activities. Additionally, industrial workers would not be expected to be involved in intrusive activities. None of the surface soil samples exceed industrial SCOs. Therefore, exposure of industrial workers to COPCs in surface soils is not a complete pathway.

#### Utility Workers

Current and future utility workers represent individuals that may be involved in the short-term repair or maintenance of current infrastructure (e.g., fire suppression system). These individuals may be exposed to COPCs in surface and subsurface

soils via direct contact (i.e., incidental ingestion and dermal contact) as well as inhalation of particulates and/or vapors during intrusive activities. However, surface and subsurface soil concentrations are all below industrial SCOs, which are derived to be protective of these types of receptors.

#### Grounds Maintenance Workers

Current and future grounds maintenance workers represent individuals that may be involved in the removal and replacement of landscaping features and involved in general maintenance activities such as lawn mowing and landscape maintenance. These individuals may be exposed to COPCs in surface soil via direct contact (i.e., incidental ingestion and dermal contact) as well as inhalation of soil-derived particulates and/or vapors in ambient air. However, COPC concentrations in surface soil samples that are located in grassy areas are all below industrial SCOs, which are derived to be protective of these types of receptors. Therefore, exposure of grounds maintenance workers to surface soils is not a significant pathway.

#### Trespassers

Current and future adolescent trespassers are defined as individuals that may trespass onto the Site, specifically in the West Lot. The West Lot is currently undeveloped and surrounding land use is a mixture of commercial and residential properties with isolated pockets of undeveloped land. The West Lot offers the potential for individuals to enter the property because Site access is not restricted. COPC concentrations across the Site are below industrial SCOs, which are specifically derived to be protective of adolescent trespassers. Therefore, exposure of adolescent trespassers to COPCs in surface soil is not a pathway of concern.

#### Construction Workers

Future construction workers represent individuals that may be involved in the removal and replacement of utilities or future Site development (although future land use is expected to be consistent with current land use). These individuals may be exposed to COPCs in surface and subsurface soils via direct contact (i.e., incidental ingestion and dermal contact) as well as inhalation of particulates and/or vapors during intrusive activities. However, surface and subsurface soil concentrations are all below industrial SCOs, which are derived to be protective of these types of receptors.

#### Commercial Receptors

At this time, future use of the Site is expected to be industrial. However, if the Site is developed in the future for commercial use, commercial workers and visitors would

represent another receptor group. Commercial receptors may include adult workers that would be employed at a commercial place of business, i.e., indoor workers. Child visitors may also represent future receptors, depending on the type of businesses found at the Site. PCBs exceed the commercial SCO in samples LMCU-SS-07, LMCU-SS-20, and LMCU-SS-21. Sample LMCU-SS-07 is located in a grassy area in the West Lot and samples LMCU-SS-20 and LMCU-SS-21 are located on the northern side of the facility in the eastern portion of the Site. The original lead result in sample LMCU-SS-15 exceeds the commercial SCO, but the re-analyzed sample is below the commercial SCO. Sample LMCU-SS-15 is located in a grassy area near one of the Site entrances.

### Conclusions

Current and future land use is expected to be industrial and as such, surface soil data are compared to industrial SCOs. However, given that the Site is also zoned commercial, surface soil data are also compared to commercial SCOs to address a potential future commercial use scenario.

- All surface and subsurface soil data are below industrial SCOs.
- Exceedances of commercial SCOs in surface soils are limited to a few samples. Specifically, PCBs exceed the commercial SCO in samples LMCU-SS-07, LMCU-SS-20, and LMCU-SS-21. Lead exceeds the commercial SCO in sample LMCU-SS-15.
- Current receptors include industrial workers, utility workers, grounds maintenance workers, and hypothetical adolescent trespassers (i.e., non-worker individuals that may enter the property, specifically in the West Lot).
- Potential future receptors include industrial workers, utility workers, grounds maintenance workers, and adolescent trespassers. In the event of future Site development, commercial workers and construction workers could represent additional future receptors.
- Surface soils do not represent a complete exposure pathway for current industrial use receptors based on a comparison of soil data to industrial SCOs and the exposure potential of identified receptor groups. As such, protective covers do not need to be maintained to mitigate potential exposures under current industrial use.

Please feel free to contact us if you have any additional questions or comments.

Sincerely,

ARCADIS U.S., Inc.



Jeffrey J. Bonsteel  
Certified Project Manager

Attachments:

Table 1: Surface Soil Classification Log

Table 2: Soil Sampling Results Compared to Industrial and Commercial SCOs

Figure 1: Sampling Locations

Attachment 1: Laboratory Analytical Data

Attachment 2: Data Usability Summary Reports

Copies:

Mr. Nathan Freeman, NYSDOH

Ms. Glenda Smith, Lockheed Martin

Mr. James Zigmont, CDM Smith

Mr. Richard Zigenfus, ConMed

Ms. Dale Truskett, Lockheed Martin

Ms. Kay Armstrong, Armstrong & Associates

Ms. Mary Morningstar, Lockheed Martin

File





## Tables

**Table 1  
Surface Soil Classification Log**

**Former Lockheed Martin French Road Facility  
Utica, New York**

<b>Boring ID</b>	<b>Date</b>	<b>Sample Depth (feet below land surface)<sup>1</sup></b>	<b>Sample Description</b>	<b>PID (ppmv)</b>	<b>Time</b>
LMCU-SS-30 Asphalt 8"	10/8/2013	0 - 0.2	Medium brown, Gravely SILT, stiff, moist, no plasticity, 2 mm to 2 cm gravel, little medium to fine sand, no odor, trace tar material, (GM)	0.9	1115 (Jars)
LMCU-SS-30 Asphalt 8" (Second Hole)	10/8/2013	0 - 0.5	Medium brown, Silty GRAVEL, loose, saturated, medium to fine silt sand, 1 mm to 3 cm gravel, no odor, (GM)	0.1	1215 (VOCs)
LMCU-SS-26 Asphalt 6" Subbase 2"	10/8/2013	0 - 0.5	Medium brown, Silty GRAVEL, wet to saturated, loose, 1 mm to 3 cm subangular to angular gravel, little sand, medium to fine, no odor, (GM)	0.0	1315
LMCU-SS-25	10/8/2013	0 - 0.5	Medium brown, Sandy SILT, loose, moist, trace medium to fine gravel, no odor, (GM)	4.2	1515
LMCU-SS-24	10/8/2013	0 - 0.5	Dark brown, Sandy SILT, loose, moist, no plasticity, very fine to medium sand subangular, trace organics, no odor, (GM)	2.1	1540
LMCU-SS-23	10/8/2013	0 - 0.5	Medium brown, Sandy SILT, soft, wet, some plasticity, trace medium to coarse gravel, 2 mm to 2 cm, very fine to medium sand subangular to subrounded, no odor, (GM)	3.4	1715
LMCU-SS-22	10/8/2013	0 - 0.5	Medium brown, Sandy SILT, very fine to fine sand, loose, some plasticity, no odor, trace fine to medium gravel, subangular to subrounded, 3 mm to 2 cm, some organics, (GM)	3.8	1735
LMCU-SS-27	10/8/2013	0 - 0.5	Medium to dark brown, SILT, little very fine to fine sand, loose/soft, trace plasticity, moist, no odor, some organics, (ML)	5.1	1805
LMCU-SS-29 Asphalt 6" Subbase 1"	10/9/2013	0 - 0.5	Gravely brown, Silty GRAVEL, loose to stiff, moist to wet, 2 mm to 3 cm gravel, subangular to subrounded, some silt, fine to medium subangular to subrounded sand, no odor, (GM)	3.5	1202 (Jars) 1230 (VOCs)
LMCU-SS-20	10/9/2013	0 - 0.5	Dark brown, Sandy GRAVEL, loose to stiff, moist, 2 mm to 10 mm gravel, subangular, some silt, fine to medium sand, no odor, (GM)	10.8	1259
LMCU-SS-21	10/9/2013	0 - 0.5	Brown, SAND, coarse to medium sand, loose, moist, some subangular gravel, 1 to 5 cm, some silt, no odor (SW)	0.8	1430
LMCU-SS-18 Subbase 1" Asphalt 3.5"	10/9/2013	0 - 0.5	Grayish brown SAND fine to coarse, loose, dry, some subangular gravel, 1 to 10 cm, some silt (SW)	0.4	0950
LMCU-SS-11 Subbase 1" Asphalt 6"	10/9/2013	0 - 0.5	Brown, SAND, loose, moist, some subangular gravel, 5 to 10 mm, some silt, no odor, (SW)	1.4	1120
LMCU-SS-14 Subbase 1" Asphalt 5.5"	10/9/2013	0 - 0.5	Brown, SAND, loose, moist to wet, some subangular gravel, 2 to 10 cm, some silt, (SW)	0.0	1330
LMCU-SS-28 Subbase 1" Asphalt 4"	10/9/2013	0 - 0.5	Dark brown, Sandy GRAVEL, loose, moist to wet, no odor, (GW)	0.0	1520
LMCU-SS-09	10/10/2013	0 - 0.5	Dark brown, Sandy SILT, loose, moist, trace plasticity to no plasticity, very fine to medium subangular to subrounded sand, little organics, no odor, (GM)	0.5	1155
LMCU-SS-08	10/10/2013	0 - 0.5	Dark brown, Sandy SILT, loose, moist, no plasticity, very fine to medium subangular to subrounded sand, some organics, no odor, (GM)	0.3	1220
LMCU-SS-07	10/10/2013	0 - 0.5	Medium brown, SAND, very fine to fine, subangular sand, loose, moist to wet, little silts, trace organics, no odor, (SW)	1.1	1255
LMCU-SS-04	10/10/2013	0 - 0.5	Medium brown, SILT, moist, loose, little fine to medium subangular sand, trace organics, no plasticity, no odor, (ML)	0.2	1335
LMCU-SS-02	10/10/2013	0 - 0.5	Medium brown, Sandy SILT, moist, loose, some organics, very fine to fine sand subangular, trace fine to medium subangular to subrounded gravel, no odor, no plasticity, (GW)	0.0	1550
LMCU-SS-01 No ground cover	10/10/2013	0 - 0.5	Medium brown, SILT, some very fine to fine sand, medium dense, no plasticity, moist, trace medium to coarse subangular gravel, 0.5 to 3 cm, (ML)	0.2	1630
LMCU-SS-03 No ground cover	10/10/2013	0 - 0.5	Medium brown to dark brown, SILT, some medium to fine sand, medium dense, no plasticity, little fine to medium subangular to SR gravel, no odor, moist, (ML)	0.0	1725
LMCU-SS-10 Asphalt 1" Subbase 5"	10/10/2013	0 - 0.5	Dark brown, SAND, loose, moist to wet, some subangular gravel, (SW)	0.5	1750
LMCU-SS-17 Asphalt 6" Subbase 11"	10/10/2013	0 - 0.5	Dark brown, SAND, loose, moist, some subangular gravel, some silt, no odor, (SW)	0.2	1650
LMCU-SS-13 Asphalt 6" Subbase 1"	10/10/2013	0 - 0.5	Dark brown, SAND, loose, moist, some subangular gravel, no odor, (SW)	0.0	1714

**Table 1  
Surface Soil Classification Log**

**Former Lockheed Martin French Road Facility  
Utica, New York**

<b>Boring ID</b>	<b>Date</b>	<b>Sample Depth (feet below land surface)<sup>1</sup></b>	<b>Sample Description</b>	<b>PID (ppmv)</b>	<b>Time</b>
LMCU-SS-16 Asphalt 5" Subbase 2"	10/11/2013	0 - 0.5	Medium brown, SAND, abundant angular gravel, loose, moist, no odor, (SW)	0.9	1000
LMCU-SS-15 Sample 1 inch below grass MS/MSD	10/11/2013	0 - 0.5	Medium brown, SAND, some silt, coarse medium grain sand, loose, moist, no odor, (SW)	0.1	1120
LMCU-SS-06 (DUP-1)	10/11/2013	0 - 0.5	Medium brown, Gravely SILT, medium to coarse subangular to subrounded gravel, 2 to 10 cm, little fine to coarse subangular to subrounded sand, moist, loose to medium dense, no odor, no plasticity, (GM)	11.7	1145
LMCU-SS-05	10/11/2013	0 - 0.5	Medium brown, Gravely SILT, loose to medium dense, little fine to medium subangular to subrounded sand, trace organics, moist, no plasticity, no odor, (GM)	12.0	1230
LMCU-SS-12 MS/MSD	10/11/2013	0 - 0.5	Medium brown, Gravely SILT, fine to coarse subangular to subrounded gravel, medium stiff, no plasticity, moist, little organics, trace sand, very fine to medium subangular, no odor, (GM)	3.8	1420
LMCU-SS-19 (DUP-2)	10/11/2013	0 - 0.5	Medium to dark brown, SILT, some very fine to fine sand, loose, dry, no plasticity, no odor, trace fine to medium subangular to subrounded gravel, little organics, (ML)	4.4	1520

**Note:**

1. All sample depths are measured below asphalt, sub-base and/or grass layers.
2. PID- Photo Ionization Detector
3. ppmv - Parts Per Million by Volume
4. The Unified Soil Classification System [USCS] identification is presented at the end of each soil description.

**Table 2**  
**Soil Sampling Results Compared to Commercial and Industrial SCOs**

**Former Lockheed Martin French Road Facility**  
**Utica, New York**

Location ID: Date Collected: Lab Sample ID:	DER-10 Commercial Use Soil Cleanup Objective	DER-10 Industrial Use Soil Cleanup Objective	Units	LMCU-SS-01 10/10/13 480-47844-26	LMCU-SS-02 10/10/13 480-47844-25	LMCU-SS-03 10/10/13 480-47844-27	LMCU-SS-04 10/10/13 480-47844-24	LMCU-SS-05 10/11/13 480-47844-4
<b>PCBs</b>								
Aroclor-1016	--	--	ug/kg	250 U	280 U	240 U	340 U	240 U
Aroclor-1221	--	--	ug/kg	250 U	280 U	240 U	340 U	240 U
Aroclor-1232	--	--	ug/kg	250 U	280 U	240 U	340 U	240 U
Aroclor-1242	--	--	ug/kg	250 U	280 U	240 U	340 U	240 U
Aroclor-1248	--	--	ug/kg	250 U	280 U	240 U	340 U	240 U
Aroclor-1254	--	--	ug/kg	250 U	280 U	240 U	340 U	240 U
Aroclor-1260	--	--	ug/kg	250 U	280 U	240 U	340 U	240 U
Total PCBs	1,000	25,000	ug/kg	250 U	280 U	240 U	340 U	240 U
<b>Volatile Organics</b>								
1,1,1-Trichloroethane	500,000	1,000,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
1,1,2,2-Tetrachloroethane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
1,1,2-Trichloroethane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
1,2,4-Trichlorobenzene	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
1,2-Dibromo-3-chloropropane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
1,2-Dibromoethane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
1,2-Dichlorobenzene	500,000	1,000,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
1,2-Dichloroethane	30,000	60,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
1,2-Dichloropropane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
1,3-Dichlorobenzene	280,000	560,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
1,4-Dichlorobenzene	130,000	250,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
2-Hexanone	--	--	ug/kg	23 U	23 U	23 UJ	29 U	25 U
4-Methyl-2-pentanone	--	--	ug/kg	23 U	23 U	23 UJ	29 U	25 U
Benzene	44,000	89,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Bromodichloromethane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Bromoform	--	--	ug/kg	4.6 UJ	4.5 UJ	4.6 UJ	5.7 UJ	5.1 U
Bromomethane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Carbon Tetrachloride	22,000	44,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Chlorobenzene	500,000	1,000,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Chloroform	350,000	700,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Chloromethane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
cis-1,3-Dichloropropene	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Dibromochloromethane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Dichlorodifluoromethane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Isopropylbenzene	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Methyl acetate	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Methyl tert-butyl ether	500,000	1,000,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Methylcyclohexane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Styrene	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
trans-1,2-Dichloroethene	500,000	1,000,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U

**Table 2**  
**Soil Sampling Results Compared to Commercial and Industrial SCOs**

Former Lockheed Martin French Road Facility  
Utica, New York

Location ID: Date Collected: Lab Sample ID:	DER-10 Commercial Use Soil Cleanup Objective	DER-10 Industrial Use Soil Cleanup Objective	Units	LMCU-SS-01 10/10/13 480-47844-26	LMCU-SS-02 10/10/13 480-47844-25	LMCU-SS-03 10/10/13 480-47844-27	LMCU-SS-04 10/10/13 480-47844-24	LMCU-SS-05 10/11/13 480-47844-4
<b>Volatile Organics (Cont.)</b>								
trans-1,3-Dichloropropene	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Trichlorofluoromethane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Xylenes (total)	500,000	1,000,000	ug/kg	9.2 U	9.0 U	9.1 UJ	11 U	<b>1.9 J</b>
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Carbon Disulfide	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Chloroethane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Cyclohexane	--	--	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
1,1-Dichloroethane	240,000	480,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
1,1-Dichloroethene	500,000	1,000,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
cis-1,2-Dichloroethene	500,000	1,000,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Ethylbenzene	390,000	780,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	<b>0.39 J</b>
Methylene Chloride	500,000	1,000,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Tetrachloroethene	150,000	300,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Toluene	500,000	1,000,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Trichloroethene	200,000	400,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
Vinyl Chloride	13,000	27,000	ug/kg	4.6 U	4.5 U	4.6 UJ	5.7 U	5.1 U
2-Butanone	500,000	1,000,000	ug/kg	23 U	23 U	23 UJ	29 U	25 U
Acetone	500,000	1,000,000	ug/kg	23 U	23 U	23 UJ	29 U	25 U
<b>Inorganics</b>								
Chromium, hexavalent	400	800	mg/kg	<b>2.00</b>	<b>0.790</b>	<b>1.40</b>	<b>1.40</b>	<b>0.480 J</b>
Cyanide	27	10,000	mg/kg	1.20 U	1.20 U	1.10 U	1.40 U	1.30 U
Lead	1,000	3,900	mg/kg	<b>13.4 J</b>	<b>21.0 J</b>	<b>24.1 J</b>	<b>35.7 J</b>	<b>21.1 J</b>
Silver	1,500	6,800	mg/kg	0.590 U	0.710 U	0.660 U	0.710 U	0.750 U

**Table 2**  
**Soil Sampling Results Compared to Commercial and Industrial SCOs**

**Former Lockheed Martin French Road Facility**  
**Utica, New York**

Location ID: Date Collected: Lab Sample ID:	DER-10 Commercial Use Soil Cleanup Objective	DER-10 Industrial Use Soil Cleanup Objective	Units	LMCU-SS-06 10/11/13 480-47844-3	LMCU-SS-07 10/10/13 480-47844-23	LMCU-SS-08 10/10/13 480-47844-22	LMCU-SS-09 10/10/13 480-47844-21	LMCU-SS-10 10/10/13 480-47844-9
<b>PCBs</b>								
Aroclor-1016	--	--	ug/kg	240 U [250 U]	220 U	350 U	310 U	270 U
Aroclor-1221	--	--	ug/kg	240 U [250 U]	220 U	350 U	310 U	270 U
Aroclor-1232	--	--	ug/kg	240 U [250 U]	220 U	350 U	310 U	270 U
Aroclor-1242	--	--	ug/kg	240 U [250 U]	220 U	350 U	310 U	270 U
Aroclor-1248	--	--	ug/kg	240 U [250 U]	220 U	350 U	310 U	270 U
Aroclor-1254	--	--	ug/kg	240 U [250 U]	<b>2,400</b>	350 U	310 U	270 U
Aroclor-1260	--	--	ug/kg	240 U [250 U]	220 U	350 U	310 U	270 U
Total PCBs	1,000	25,000	ug/kg	240 U [250 U]	<b>2,400</b>	350 U	310 U	270 U
<b>Volatile Organics</b>								
1,1,1-Trichloroethane	500,000	1,000,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
1,1,2,2-Tetrachloroethane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
1,1,2-Trichloroethane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
1,2,4-Trichlorobenzene	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
1,2-Dibromo-3-chloropropane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
1,2-Dibromoethane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
1,2-Dichlorobenzene	500,000	1,000,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
1,2-Dichloroethane	30,000	60,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
1,2-Dichloropropane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
1,3-Dichlorobenzene	280,000	560,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
1,4-Dichlorobenzene	130,000	250,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
2-Hexanone	--	--	ug/kg	24 U [22 U]	24 U	38 U	31 U	31 U
4-Methyl-2-pentanone	--	--	ug/kg	24 U [22 U]	24 U	38 U	31 U	31 U
Benzene	44,000	89,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Bromodichloromethane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Bromoform	--	--	ug/kg	4.7 U [4.5 UJ]	4.8 UJ	7.5 UJ	6.3 UJ	6.2 UJ
Bromomethane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Carbon Tetrachloride	22,000	44,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Chlorobenzene	500,000	1,000,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Chloroform	350,000	700,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Chloromethane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
cis-1,3-Dichloropropene	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Dibromochloromethane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Dichlorodifluoromethane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Isopropylbenzene	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Methyl acetate	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Methyl tert-butyl ether	500,000	1,000,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Methylcyclohexane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Styrene	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
trans-1,2-Dichloroethene	500,000	1,000,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U

**Table 2**  
**Soil Sampling Results Compared to Commercial and Industrial SCOs**

Former Lockheed Martin French Road Facility  
Utica, New York

Location ID: Date Collected: Lab Sample ID:	DER-10 Commercial Use Soil Cleanup Objective	DER-10 Industrial Use Soil Cleanup Objective	Units	LMCU-SS-06 10/11/13 480-47844-3	LMCU-SS-07 10/10/13 480-47844-23	LMCU-SS-08 10/10/13 480-47844-22	LMCU-SS-09 10/10/13 480-47844-21	LMCU-SS-10 10/10/13 480-47844-9
<b>Volatile Organics (Cont.)</b>								
trans-1,3-Dichloropropene	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Trichlorofluoromethane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Xylenes (total)	500,000	1,000,000	ug/kg	1.9 J [8.9 U]	9.7 U	15 U	13 U	12 U
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Carbon Disulfide	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Chloroethane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Cyclohexane	--	--	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
1,1-Dichloroethane	240,000	480,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
1,1-Dichloroethene	500,000	1,000,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
cis-1,2-Dichloroethene	500,000	1,000,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Ethylbenzene	390,000	780,000	ug/kg	0.40 J [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Methylene Chloride	500,000	1,000,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Tetrachloroethene	150,000	300,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Toluene	500,000	1,000,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Trichloroethene	200,000	400,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
Vinyl Chloride	13,000	27,000	ug/kg	4.7 U [4.5 U]	4.8 U	7.5 U	6.3 U	6.2 U
2-Butanone	500,000	1,000,000	ug/kg	24 U [22 U]	<b>350</b>	38 U	31 U	31 U
Acetone	500,000	1,000,000	ug/kg	24 U [22 U]	<b>180</b>	38 U	31 U	31 U
<b>Inorganics</b>								
Chromium, hexavalent	400	800	mg/kg	<b>0.330 J [0.110 J]</b>	<b>0.120 J</b>	<b>0.470 J</b>	<b>0.500 J</b>	<b>0.550</b>
Cyanide	27	10,000	mg/kg	1.10 U [1.00 U]	1.20 U	1.50 U	1.40 U	1.10 U
Lead	1,000	3,900	mg/kg	<b>21.8 J [16.6 J]</b>	<b>8.70 J</b>	<b>29.3 J</b>	<b>27.3 J</b>	<b>12.2 J</b>
Silver	1,500	6,800	mg/kg	0.570 U [0.540 U]	0.580 U	0.870 U	0.730 U	0.560 U

**Table 2**  
**Soil Sampling Results Compared to Commercial and Industrial SCOs**

**Former Lockheed Martin French Road Facility**  
**Utica, New York**

Location ID: Date Collected: Lab Sample ID:	DER-10 Commercial Use Soil Cleanup Objective	DER-10 Industrial Use Soil Cleanup Objective	Units	LMCU-SS-11 10/10/13 480-47844-14	LMCU-SS-12 10/11/13 480-47844-5	LMCU-SS-13 10/10/13 480-47844-11	LMCU-SS-14 10/10/13 480-47844-15	LMCU-SS-15 10/11/13 480-47844-8
<b>PCBs</b>								
Aroclor-1016	--	--	ug/kg	280 U	260 U	270 U	240 U	280 U
Aroclor-1221	--	--	ug/kg	280 U	260 U	270 U	240 U	280 U
Aroclor-1232	--	--	ug/kg	280 U	260 U	270 U	240 U	280 U
Aroclor-1242	--	--	ug/kg	280 U	260 U	270 U	240 U	280 U
Aroclor-1248	--	--	ug/kg	280 U	260 U	270 U	240 U	280 U
Aroclor-1254	--	--	ug/kg	280 U	260 U	270 U	240 U	<b>350 J</b>
Aroclor-1260	--	--	ug/kg	280 U	260 U	270 U	240 U	280 U
Total PCBs	1,000	25,000	ug/kg	280 U	260 U	270 U	240 U	<b>350</b>
<b>Volatile Organics</b>								
1,1,1-Trichloroethane	500,000	1,000,000	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
1,1,2,2-Tetrachloroethane	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
1,1,2-Trichloroethane	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
1,2,4-Trichlorobenzene	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
1,2-Dibromo-3-chloropropane	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
1,2-Dibromoethane	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
1,2-Dichlorobenzene	500,000	1,000,000	ug/kg	4.5 U	5.0 UJ	3.5 U	3.4 U	6.2 UJ
1,2-Dichloroethane	30,000	60,000	ug/kg	4.5 U	5.0 UJ	3.5 U	3.4 U	6.2 U
1,2-Dichloropropane	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
1,3-Dichlorobenzene	280,000	560,000	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
1,4-Dichlorobenzene	130,000	250,000	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
2-Hexanone	--	--	ug/kg	23 U	25 U	18 U	17 U	31 U
4-Methyl-2-pentanone	--	--	ug/kg	23 U	25 U	18 U	17 U	31 U
Benzene	44,000	89,000	ug/kg	<b>3.4 J</b>	5.0 U	3.5 U	3.4 U	6.2 U
Bromodichloromethane	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Bromoform	--	--	ug/kg	4.5 UJ	5.0 U	3.5 UJ	3.4 UJ	6.2 UJ
Bromomethane	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Carbon Tetrachloride	22,000	44,000	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Chlorobenzene	500,000	1,000,000	ug/kg	4.5 U	5.0 UJ	3.5 U	3.4 U	6.2 U
Chloroform	350,000	700,000	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Chloromethane	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
cis-1,3-Dichloropropene	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Dibromochloromethane	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Dichlorodifluoromethane	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Isopropylbenzene	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Methyl acetate	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Methyl tert-butyl ether	500,000	1,000,000	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Methylcyclohexane	--	--	ug/kg	<b>5.7</b>	5.0 U	3.5 U	3.4 U	6.2 U
Styrene	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
trans-1,2-Dichloroethene	500,000	1,000,000	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U



**Table 2**  
**Soil Sampling Results Compared to Commercial and Industrial SCOs**

Former Lockheed Martin French Road Facility  
 Utica, New York

Location ID: Date Collected: Lab Sample ID:	DER-10 Commercial Use Soil Cleanup Objective	DER-10 Industrial Use Soil Cleanup Objective	Units	LMCU-SS-11 10/10/13 480-47844-14	LMCU-SS-12 10/11/13 480-47844-5	LMCU-SS-13 10/10/13 480-47844-11	LMCU-SS-14 10/10/13 480-47844-15	LMCU-SS-15 10/11/13 480-47844-8
<b>Volatile Organics (Cont.)</b>								
trans-1,3-Dichloropropene	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Trichlorofluoromethane	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Xylenes (total)	500,000	1,000,000	ug/kg	<b>17</b>	<b>1.5 J</b>	7.0 U	6.9 U	12 U
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Carbon Disulfide	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Chloroethane	--	--	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Cyclohexane	--	--	ug/kg	<b>1.6 J</b>	5.0 U	3.5 U	3.4 U	6.2 U
1,1-Dichloroethane	240,000	480,000	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
1,1-Dichloroethene	500,000	1,000,000	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
cis-1,2-Dichloroethene	500,000	1,000,000	ug/kg	<b>9.6</b>	5.0 UJ	3.5 U	3.4 U	6.2 U
Ethylbenzene	390,000	780,000	ug/kg	<b>10</b>	5.0 UJ	3.5 U	3.4 U	6.2 UJ
Methylene Chloride	500,000	1,000,000	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Tetrachloroethene	150,000	300,000	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
Toluene	500,000	1,000,000	ug/kg	<b>1.6 J</b>	5.0 U	3.5 U	3.4 U	6.2 U
Trichloroethene	200,000	400,000	ug/kg	4.5 U	5.0 UJ	3.5 U	3.4 U	6.2 U
Vinyl Chloride	13,000	27,000	ug/kg	4.5 U	5.0 U	3.5 U	3.4 U	6.2 U
2-Butanone	500,000	1,000,000	ug/kg	<b>34</b>	25 U	18 U	17 U	31 U
Acetone	500,000	1,000,000	ug/kg	<b>150</b>	25 U	18 U	17 U	31 U
<b>Inorganics</b>								
Chromium, hexavalent	400	800	mg/kg	<b>0.580</b>	<b>0.110 J</b>	<b>0.770</b>	<b>0.120 J</b>	0.500 U
Cyanide	27	10,000	mg/kg	<b>1.20</b>	1.10 U	1.10 U	1.10 U	1.20 U
Lead	1,000	3,900	mg/kg	<b>18.2 J</b>	<b>23.8 J</b>	<b>24.8 J</b>	<b>17.3 J</b>	<b>1,090 J {37.7 J}</b>
Silver	1,500	6,800	mg/kg	0.600 U	0.600 U	0.560 U	0.600 U	0.660 U

**Table 2**  
**Soil Sampling Results Compared to Commercial and Industrial SCOs**

**Former Lockheed Martin French Road Facility**  
**Utica, New York**

Location ID: Date Collected: Lab Sample ID:	DER-10 Commercial Use Soil Cleanup Objective	DER-10 Industrial Use Soil Cleanup Objective	Units	LMCU-SS-15 10/11/13 480-47844-8RE	LMCU-SS-16 10/11/13 480-47844-7	LMCU-SS-17 10/10/13 480-47844-10	LMCU-SS-18 10/10/13 480-47844-13	LMCU-SS-19 10/11/13 480-47844-6
<b>PCBs</b>								
Aroclor-1016	--	--	ug/kg	NA	220 U	260 U	240 U	250 U [270 U]
Aroclor-1221	--	--	ug/kg	NA	220 U	260 U	240 U	250 U [270 U]
Aroclor-1232	--	--	ug/kg	NA	220 U	260 U	240 U	250 U [270 U]
Aroclor-1242	--	--	ug/kg	NA	220 U	260 U	240 U	250 U [270 U]
Aroclor-1248	--	--	ug/kg	NA	220 U	260 U	240 U	250 U [270 U]
Aroclor-1254	--	--	ug/kg	NA	220 U	260 U	240 U	250 U [270 U]
Aroclor-1260	--	--	ug/kg	NA	220 U	260 U	240 U	250 U [270 U]
Total PCBs	1,000	25,000	ug/kg	NA	220 U	260 U	240 U	250 U [270 U]
<b>Volatile Organics</b>								
1,1,1-Trichloroethane	500,000	1,000,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
1,1,2,2-Tetrachloroethane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
1,1,2-Trichloroethane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
1,2,4-Trichlorobenzene	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
1,2-Dibromo-3-chloropropane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
1,2-Dibromoethane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
1,2-Dichlorobenzene	500,000	1,000,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
1,2-Dichloroethane	30,000	60,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
1,2-Dichloropropane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
1,3-Dichlorobenzene	280,000	560,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
1,4-Dichlorobenzene	130,000	250,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
2-Hexanone	--	--	ug/kg	NA	21 U	17 U	22 U	26 U [26 U]
4-Methyl-2-pentanone	--	--	ug/kg	NA	21 U	17 U	22 U	26 U [26 U]
Benzene	44,000	89,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Bromodichloromethane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Bromoform	--	--	ug/kg	NA	4.1 UJ	3.4 UJ	4.3 UJ	5.2 UJ [5.3 UJ]
Bromomethane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Carbon Tetrachloride	22,000	44,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Chlorobenzene	500,000	1,000,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Chloroform	350,000	700,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Chloromethane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
cis-1,3-Dichloropropene	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Dibromochloromethane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Dichlorodifluoromethane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Isopropylbenzene	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Methyl acetate	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Methyl tert-butyl ether	500,000	1,000,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Methylcyclohexane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Styrene	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
trans-1,2-Dichloroethene	500,000	1,000,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]

**Table 2**  
**Soil Sampling Results Compared to Commercial and Industrial SCOs**

Former Lockheed Martin French Road Facility  
Utica, New York

Location ID: Date Collected: Lab Sample ID:	DER-10 Commercial Use Soil Cleanup Objective	DER-10 Industrial Use Soil Cleanup Objective	Units	LMCU-SS-15 10/11/13 480-47844-8RE	LMCU-SS-16 10/11/13 480-47844-7	LMCU-SS-17 10/10/13 480-47844-10	LMCU-SS-18 10/10/13 480-47844-13	LMCU-SS-19 10/11/13 480-47844-6
<b>Volatile Organics (Cont.)</b>								
trans-1,3-Dichloropropene	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Trichlorofluoromethane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Xylenes (total)	500,000	1,000,000	ug/kg	NA	8.3 U	6.8 U	8.6 U	10 U [11 U]
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Carbon Disulfide	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Chloroethane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Cyclohexane	--	--	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
1,1-Dichloroethane	240,000	480,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
1,1-Dichloroethene	500,000	1,000,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
cis-1,2-Dichloroethene	500,000	1,000,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Ethylbenzene	390,000	780,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Methylene Chloride	500,000	1,000,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Tetrachloroethene	150,000	300,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Toluene	500,000	1,000,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Trichloroethene	200,000	400,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
Vinyl Chloride	13,000	27,000	ug/kg	NA	4.1 U	3.4 U	4.3 U	5.2 U [5.3 U]
2-Butanone	500,000	1,000,000	ug/kg	NA	21 U	17 U	22 U	26 U [26 U]
Acetone	500,000	1,000,000	ug/kg	NA	4.5 J	22	22 U	26 U [26 U]
<b>Inorganics</b>								
Chromium, hexavalent	400	800	mg/kg	NA	0.830	1.20	0.770	0.420 J [0.500 U]
Cyanide	27	10,000	mg/kg	NA	1.00 U	1.10 U	1.00 U	1.10 U [1.20 U]
Lead	1,000	3,900	mg/kg	37.7 J	25.0 J	14.0 J	3.00 J	17.0 J [18.4 J]
Silver	1,500	6,800	mg/kg	NA	0.540 U	0.580 U	0.540 U	0.560 U [0.650 U]

**Table 2**  
**Soil Sampling Results Compared to Commercial and Industrial SCOs**

**Former Lockheed Martin French Road Facility**  
**Utica, New York**

Location ID: Date Collected: Lab Sample ID:	DER-10 Commercial Use Soil Cleanup Objective	DER-10 Industrial Use Soil Cleanup Objective	Units	LMCU-SS-20 10/09/13 480-47617-2	LMCU-SS-21 10/09/13 480-47617-3	LMCU-SS-22 10/08/13 480-47617-4	LMCU-SS-23 10/08/13 480-47617-9	LMCU-SS-24 10/08/13 480-47617-8	LMCU-SS-25 10/08/13 480-47617-7
<b>PCBs</b>									
Aroclor-1016	--	--	ug/kg	230 U	270 U	220 U	220 U	340 U	220 U
Aroclor-1221	--	--	ug/kg	230 U	270 U	220 U	220 U	340 U	220 U
Aroclor-1232	--	--	ug/kg	230 U	270 U	220 U	220 U	340 U	220 U
Aroclor-1242	--	--	ug/kg	230 U	270 U	220 U	220 U	340 U	220 U
Aroclor-1248	--	--	ug/kg	230 U	270 U	220 U	220 U	340 U	220 U
Aroclor-1254	--	--	ug/kg	<b>2,400 J</b>	<b>1,300 JN</b>	220 U	<b>150 J</b>	340 U	220 U
Aroclor-1260	--	--	ug/kg	<b>1,100 J</b>	270 U	220 U	220 U	340 U	220 U
Total PCBs	1,000	25,000	ug/kg	<b>3,500 J</b>	<b>1,300 JN</b>	220 U	<b>150 J</b>	340 U	220 U
<b>Volatile Organics</b>									
1,1,1-Trichloroethane	500,000	1,000,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
1,1,2,2-Tetrachloroethane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
1,1,2-Trichloroethane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
1,2,4-Trichlorobenzene	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
1,2-Dibromo-3-chloropropane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
1,2-Dibromoethane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
1,2-Dichlorobenzene	500,000	1,000,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
1,2-Dichloroethane	30,000	60,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
1,2-Dichloropropane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
1,3-Dichlorobenzene	280,000	560,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
1,4-Dichlorobenzene	130,000	250,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
2-Hexanone	--	--	ug/kg	21 U	26 U	25 U	23 U	47 U	23 U
4-Methyl-2-pentanone	--	--	ug/kg	21 U	26 U	25 U	23 U	47 U	23 U
Benzene	44,000	89,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Bromodichloromethane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Bromoform	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Bromomethane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Carbon Tetrachloride	22,000	44,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Chlorobenzene	500,000	1,000,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Chloroform	350,000	700,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Chloromethane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
cis-1,3-Dichloropropene	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Dibromochloromethane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Dichlorodifluoromethane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Isopropylbenzene	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Methyl acetate	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Methyl tert-butyl ether	500,000	1,000,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Methylcyclohexane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Styrene	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
trans-1,2-Dichloroethane	500,000	1,000,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U

**Table 2**  
**Soil Sampling Results Compared to Commercial and Industrial SCOs**

Former Lockheed Martin French Road Facility  
Utica, New York

Location ID: Date Collected: Lab Sample ID:	DER-10 Commercial Use Soil Cleanup Objective	DER-10 Industrial Use Soil Cleanup Objective	Units	LMCU-SS-20 10/09/13 480-47617-2	LMCU-SS-21 10/09/13 480-47617-3	LMCU-SS-22 10/08/13 480-47617-4	LMCU-SS-23 10/08/13 480-47617-9	LMCU-SS-24 10/08/13 480-47617-8	LMCU-SS-25 10/08/13 480-47617-7
<b>Volatile Organics (Cont.)</b>									
trans-1,3-Dichloropropene	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Trichlorofluoromethane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Xylenes (total)	500,000	1,000,000	ug/kg	8.4 U	10 U	9.9 U	9.4 U	19 U	9.4 U
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Carbon Disulfide	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Chloroethane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Cyclohexane	--	--	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
1,1-Dichloroethane	240,000	480,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
1,1-Dichloroethene	500,000	1,000,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
cis-1,2-Dichloroethene	500,000	1,000,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Ethylbenzene	390,000	780,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Methylene Chloride	500,000	1,000,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Tetrachloroethene	150,000	300,000	ug/kg	4.2 U	5.2 U	5.0 U	<b>0.66 J</b>	9.5 U	4.7 U
Toluene	500,000	1,000,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Trichloroethene	200,000	400,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
Vinyl Chloride	13,000	27,000	ug/kg	4.2 U	5.2 U	5.0 U	4.7 U	9.5 U	4.7 U
2-Butanone	500,000	1,000,000	ug/kg	21 U	26 U	25 U	23 U	47 U	23 U
Acetone	500,000	1,000,000	ug/kg	21 U	26 U	25 U	23 U	47 U	23 U
<b>Inorganics</b>									
Chromium, hexavalent	400	800	mg/kg	<b>0.350 J</b>	<b>1.30</b>	<b>0.470 J</b>	0.460 U	<b>2.70 J</b>	<b>0.690</b>
Cyanide	27	10,000	mg/kg	1.10 U	1.10 U	1.20 U	1.10 U	1.30 U	1.10 U
Lead	1,000	3,900	mg/kg	<b>15.2 J</b>	<b>34.7 J</b>	<b>12.7 J</b>	<b>13.5 J</b>	<b>10.4 J</b>	<b>16.0 J</b>
Silver	1,500	6,800	mg/kg	0.570 U	0.590 U	0.640 U	0.580 U	0.700 U	0.560 U

**Table 2**  
**Soil Sampling Results Compared to Commercial and Industrial SCOs**

**Former Lockheed Martin French Road Facility**  
**Utica, New York**

Location ID: Date Collected: Lab Sample ID:	DER-10 Commercial Use Soil Cleanup Objective	DER-10 Industrial Use Soil Cleanup Objective	Units	LMCU-SS-26 10/08/13 480-47617-6	LMCU-SS-27 10/08/13 480-47617-10	LMCU-SS-28 10/10/13 480-47844-16	LMCU-SS-29 10/09/13 480-47617-1	LMCU-SS-30 10/08/13 480-47617-5
<b>PCBs</b>								
Aroclor-1016	--	--	ug/kg	240 U	230 U	230 U	230 U	210 U
Aroclor-1221	--	--	ug/kg	240 U	230 U	230 U	230 U	210 U
Aroclor-1232	--	--	ug/kg	240 U	230 U	230 U	230 U	210 U
Aroclor-1242	--	--	ug/kg	240 U	230 U	230 U	230 U	210 U
Aroclor-1248	--	--	ug/kg	240 U	230 U	230 U	230 U	210 U
Aroclor-1254	--	--	ug/kg	240 U	230 U	230 U	230 U	210 U
Aroclor-1260	--	--	ug/kg	240 U	230 U	230 U	230 U	210 U
Total PCBs	1,000	25,000	ug/kg	240 U	230 U	<b>140 J</b>	230 U	210 U
<b>Volatile Organics</b>								
1,1,1-Trichloroethane	500,000	1,000,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
1,1,2,2-Tetrachloroethane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
1,1,2-Trichloroethane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
1,2,4-Trichlorobenzene	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
1,2-Dibromo-3-chloropropane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
1,2-Dibromoethane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
1,2-Dichlorobenzene	500,000	1,000,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
1,2-Dichloroethane	30,000	60,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
1,2-Dichloropropane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
1,3-Dichlorobenzene	280,000	560,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
1,4-Dichlorobenzene	130,000	250,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
2-Hexanone	--	--	ug/kg	19 U	27 U	20 UJ	25 U	17 U
4-Methyl-2-pentanone	--	--	ug/kg	19 U	27 U	20 UJ	25 U	17 U
Benzene	44,000	89,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Bromodichloromethane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Bromoform	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Bromomethane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Carbon Tetrachloride	22,000	44,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Chlorobenzene	500,000	1,000,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Chloroform	350,000	700,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Chloromethane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
cis-1,3-Dichloropropene	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Dibromochloromethane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Dichlorodifluoromethane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Isopropylbenzene	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Methyl acetate	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Methyl tert-butyl ether	500,000	1,000,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Methylcyclohexane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Styrene	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
trans-1,2-Dichloroethene	500,000	1,000,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U

**Table 2**  
**Soil Sampling Results Compared to Commercial and Industrial SCOs**

Former Lockheed Martin French Road Facility  
Utica, New York

Location ID: Date Collected: Lab Sample ID:	DER-10 Commercial Use Soil Cleanup Objective	DER-10 Industrial Use Soil Cleanup Objective	Units	LMCU-SS-26 10/08/13 480-47617-6	LMCU-SS-27 10/08/13 480-47617-10	LMCU-SS-28 10/10/13 480-47844-16	LMCU-SS-29 10/09/13 480-47617-1	LMCU-SS-30 10/08/13 480-47617-5
<b>Volatile Organics (Cont.)</b>								
trans-1,3-Dichloropropene	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Trichlorofluoromethane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Xylenes (total)	500,000	1,000,000	ug/kg	7.7 U	11 U	7.9 UJ	10 U	6.9 U
1,1,2-trichloro-1,2,2-trifluoroethane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Carbon Disulfide	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Chloroethane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Cyclohexane	--	--	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
1,1-Dichloroethane	240,000	480,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
1,1-Dichloroethene	500,000	1,000,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
cis-1,2-Dichloroethene	500,000	1,000,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Ethylbenzene	390,000	780,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Methylene Chloride	500,000	1,000,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Tetrachloroethene	150,000	300,000	ug/kg	3.9 U	5.4 U	<b>8.1 J</b>	<b>6.9</b>	3.4 U
Toluene	500,000	1,000,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
Trichloroethene	200,000	400,000	ug/kg	3.9 U	5.4 U	<b>2.9 J</b>	<b>4.3 J</b>	3.4 U
Vinyl Chloride	13,000	27,000	ug/kg	3.9 U	5.4 U	4.0 UJ	5.0 U	3.4 U
2-Butanone	500,000	1,000,000	ug/kg	19 U	27 U	20 UJ	25 U	17 U
Acetone	500,000	1,000,000	ug/kg	19 U	27 U	20 UJ	25 U	17 U
<b>Inorganics</b>								
Chromium, hexavalent	400	800	mg/kg	<b>0.930</b>	<b>0.640</b>	<b>0.170 J</b>	<b>0.130 J</b>	<b>0.750</b>
Cyanide	27	10,000	mg/kg	1.10 U	1.20 U	1.00 U	1.00 U	1.00 U
Lead	1,000	3,900	mg/kg	<b>11.7 J</b>	<b>15.6 J</b>	<b>16.1 J</b>	<b>2.40 J</b>	<b>10.1 J</b>
Silver	1,500	6,800	mg/kg	0.600 U	0.600 U	0.480 U	0.560 U	0.510 U

**Table 2**  
**Soil Sampling Results Compared to Commercial and Industrial SCOs**  
**Former Lockheed Martin French Road Facility**  
**Utica, New York**

Qualifier Type	Lab Qualifiers	Definition
Inorganic/Organic	J	Indicates an estimated value.
Inorganic/Organic	U	The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
Organic	JN	The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
Organic	UJ	The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

Notes:

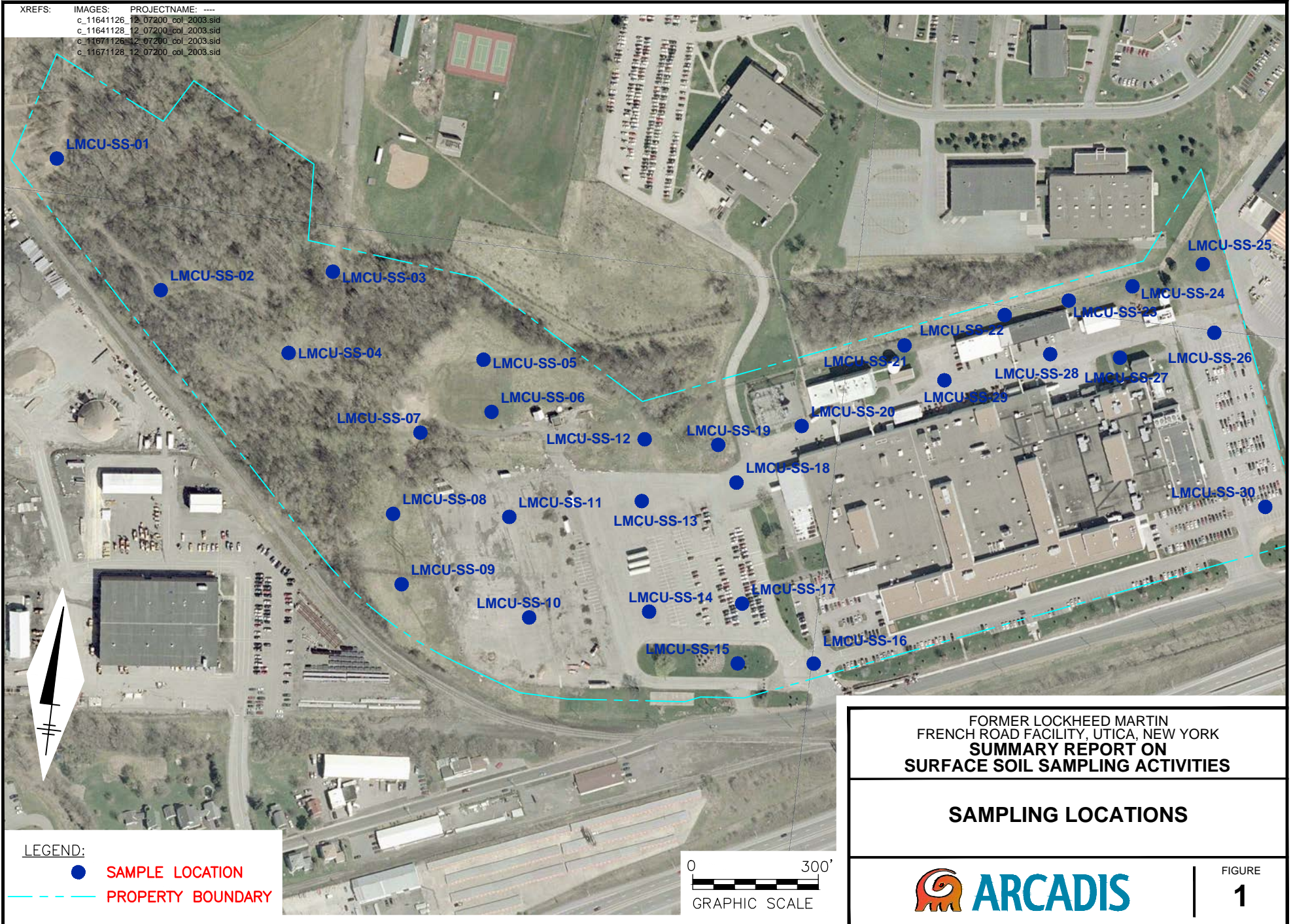
- 1) ug/kg - micrograms per kilogram
- 2) mg/kg - milligrams per killogram
- 3) Concentration in brackets [ ] are Field Duplicates
- 4) **Bold** - Detected Concentration
- 5) Shaded Values - Concentration exceeds Commercial Use Soil Cleanup Objective
- 6) There are no exceedances of the Industrial Use Soil Cleanup Objective
- 7) { } Re-analyzed sample result





## Figures

XREFS: IMAGES: PROJECTNAME: ----  
c\_11641126\_12\_07200\_col\_2003.sid  
c\_11641128\_12\_07200\_col\_2003.sid  
c\_11671126\_12\_07200\_col\_2003.sid  
c\_11671128\_12\_07200\_col\_2003.sid





**Attachment 1**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-47844-1

Client Project/Site: Surface Soil Sampling - Utica

Revision: 3

For:

ARCADIS U.S., Inc.

10 Friends Lane

Suite 200

Newtown, Pennsylvania 18940

Attn: Mr. Jeffrey Bonsteel



Authorized for release by:

12/17/2013 5:22:38 PM

Candace Fox, Manager of Project Management

(716)504-9844

[candace.fox@testamericainc.com](mailto:candace.fox@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

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

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

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

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# Definitions/Glossary

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	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.
H	Sample was prepped or analyzed beyond the specified holding time
F	MS/MSD Recovery and/or RPD exceeds the control limits

### GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
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.

### General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

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

# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Job ID: 480-47844-1**

**Laboratory: TestAmerica Buffalo**

## Narrative

### Job Narrative 480-47844-1

#### Comments

This report has been revised to provide revised total lead results for sample LMCU-SS-15. The original results provided were unexpectedly elevated. Per request from Arcadis personnel the original results were reviewed. Since no errors were detected the sample was re-analyzed. The re-analyzed results provided results that were more in line with the MS and MSD recoveries and were shown to be re-producible.

#### Receipt

The samples were received on 10/12/2013 2:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.1° C, 2.4° C, 3.2° C and 3.6° C.

#### Except:

The following samples were listed on the Chain of Custody (COC); however, no samples were received: LMCU-SS-20 (480-47844-17), LMCU-SS-21 (480-47844-12), LMCU-SS-29 (480-47844-18). Tests have been canceled.

The following samples were preserved via freezing on 10/12/2013 at 07:00: DUP-1 (480-47844-19), DUP-2 (480-47844-20), LMCU-SS-1 (480-47844-26), LMCU-SS-10 (480-47844-9), LMCU-SS-11 (480-47844-14), LMCU-SS-12 (480-47844-5), LMCU-SS-12 (480-47844-5 MS), LMCU-SS-12 (480-47844-5 MSD), LMCU-SS-13 (480-47844-11), LMCU-SS-14 (480-47844-15), LMCU-SS-15 (480-47844-8), LMCU-SS-15 (480-47844-8 MS), LMCU-SS-15 (480-47844-8 MSD), LMCU-SS-16 (480-47844-7), LMCU-SS-17 (480-47844-10), LMCU-SS-18 (480-47844-13), LMCU-SS-19 (480-47844-6), LMCU-SS-2 (480-47844-25), LMCU-SS-28 (480-47844-16), LMCU-SS-3 (480-47844-27), LMCU-SS-4 (480-47844-24), LMCU-SS-5 (480-47844-4), LMCU-SS-6 (480-47844-3), LMCU-SS-7 (480-47844-23), LMCU-SS-8 (480-47844-22), LMCU-SS-9 (480-47844-21). This is within the 48 hour timeframe required by the method.

#### GC/MS VOA

Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) for batch 146452 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes of interest are outside the method-defined %D criteria.

Method(s) 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 146925 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8260C: The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 146925 was outside control limits.

Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) for batch 146925 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes of interest are outside the method-defined %D criteria.

Method(s) 8260C: The laboratory control sample (LCS) for batch 147088 recovered outside control limits for the following analytes: Tetrachloroethene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. (LCS 480-147088/4)

Method(s) 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 147088 were outside control limits for several compounds. The associated laboratory control sample (LCS) recovery met acceptance criteria, with the exception of Tetrachloroethene, which recovered high, samples ND.LMCU-SS-15 (480-47844-8 MS), LMCU-SS-15 (480-47844-8 MSD)

Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) for batch 147179 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes of interest are outside the method-defined %D criteria.

Method(s) 8260C: The following samples were analyzed outside of analytical holding time due to analyst over-sight: LMCU-SS-28 (480-47844-16), LMCU-SS-3 (480-47844-27).

Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) in batch 147088 gives a high

# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Job ID: 480-47844-1 (Continued)

### Laboratory: TestAmerica Buffalo (Continued)

probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes are outside the method-defined %D criteria.

Method(s) 8260C: The large number of analytes included in the continuing calibration verification (CCV) in batch 147396 gives a high probability that one or more analytes will be outside acceptance criteria. As indicated in the reference method, analysis may proceed as long as no more than 20% of the analytes are outside the method-defined %D criteria.

No other analytical or quality issues were noted.

### GC Semi VOA

Method(s) 8082A: The surrogate percent difference in the associated continuing calibration verifications (CCV) for Decachlorobiphenyl exceeded 20% on the ZB-5 column, indicating a high bias. (CCV 480-144916/35), (CCV 480-144916/40), (CCV 480-144916/63), (CCV 480-144916/84)

Method(s) 8082A: The surrogate percent difference in the associated continuing calibration verification (CCV 480-144916/52) for Decachlorobiphenyl exceeded 20% on the ZB-5 column, indicating a high bias.

Method(s) 8082A: The surrogate percent difference in the associated continuing calibration verifications (CCV) for Tetrachloro-m-xylene and was decreased and slightly exceeded 20% on the ZB-5 column, indicating a low bias. (CCV 480-145203/19), (CCV 480-145203/31), (CCV 480-145203/35), (CCV 480-145203/8)

Method(s) 8082A: All primary data is reported from the ZB-5 column.

Method(s) 8082A: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peaks are only listed for completeness.

No other analytical or quality issues were noted.

### Metals

Method(s) 6010C: The Method Blank for batch 480-144541 contained total lead above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples DUP-1 (480-47844-19), DUP-2 (480-47844-20), LMCU-SS-10 (480-47844-9), LMCU-SS-11 (480-47844-14), LMCU-SS-12 (480-47844-5), LMCU-SS-13 (480-47844-11), LMCU-SS-14 (480-47844-15), LMCU-SS-15 (480-47844-8), LMCU-SS-16 (480-47844-7), LMCU-SS-17 (480-47844-10), LMCU-SS-18 (480-47844-13), LMCU-SS-19 (480-47844-6), LMCU-SS-2 (480-47844-25), LMCU-SS-28 (480-47844-16), LMCU-SS-4 (480-47844-24), LMCU-SS-5 (480-47844-4), LMCU-SS-6 (480-47844-3), LMCU-SS-7 (480-47844-23), LMCU-SS-8 (480-47844-22), LMCU-SS-9 (480-47844-21) was not performed.

Method(s) 6010C: The Serial Dilution and Post Spike (480-47844-5 PDS), (480-47844-5 SD) exceeded the quality control limits for total lead. Sample matrix is suspected, therefore, no corrective action was necessary.

Method(s) 6010C: The recovery of Post Spike, (480-47844-5 PDS), in batch 480-144541 exhibited a result outside the quality control limits for total silver. However, the Serial Dilution of this sample was compliant. Therefore, no corrective action was necessary

Method(s) 6010C: The CCVL, 480-144987/38, contained total lead above the reporting limit (RL). The associated samples DUP-1 (480-47844-19), DUP-2 (480-47844-20), LMCU-SS-10 (480-47844-9), LMCU-SS-11 (480-47844-14), LMCU-SS-13 (480-47844-11), LMCU-SS-14 (480-47844-15), LMCU-SS-15 (480-47844-8), LMCU-SS-16 (480-47844-7), LMCU-SS-17 (480-47844-10), LMCU-SS-19 (480-47844-6), LMCU-SS-28 (480-47844-16), LMCU-SS-7 (480-47844-23), LMCU-SS-8 (480-47844-22), LMCU-SS-9 (480-47844-21) contained detects for this analyte at concentrations greater than 10X the value found in the CCVL; therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6010C: The Method Blank for batch 144541 contained total lead above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples LMCU-SS-18 (480-47844-13) was not performed.

No other analytical or quality issues were noted.



# Case Narrative

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

---

## Job ID: 480-47844-1 (Continued)

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### Laboratory: TestAmerica Buffalo (Continued)

#### General Chemistry

No analytical or quality issues were noted.

#### Organic Prep

No analytical or quality issues were noted.

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# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: FB

Lab Sample ID: 480-47844-1

No Detections.

## Client Sample ID: TB

Lab Sample ID: 480-47844-2

No Detections.

## Client Sample ID: LMCU-SS-6

Lab Sample ID: 480-47844-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.40	J	4.7	0.33	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	1.9	J	9.5	0.79	ug/Kg	1	☼	8260C	Total/NA
Lead	21.8	B	1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.33	J	0.45	0.11	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-5

Lab Sample ID: 480-47844-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.39	J	5.1	0.35	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	1.9	J	10	0.85	ug/Kg	1	☼	8260C	Total/NA
Lead	21.1	B	1.5	0.36	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.48	J	0.54	0.14	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-12

Lab Sample ID: 480-47844-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	1.5	J	9.9	0.83	ug/Kg	1	☼	8260C	Total/NA
Lead	23.8	B	1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.11	J	0.44	0.11	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-19

Lab Sample ID: 480-47844-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	17.0	B ^	1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.42	J	0.47	0.12	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-16

Lab Sample ID: 480-47844-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.5	J	21	3.5	ug/Kg	1	☼	8260C	Total/NA
Lead	25.0	B ^	1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.83		0.44	0.11	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-15

Lab Sample ID: 480-47844-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	350		280	130	ug/Kg	1	☼	8082A	Total/NA
Lead	37.7	^	1.3	0.32	mg/Kg	1	☼	6010C	Total/NA

## Client Sample ID: LMCU-SS-10

Lab Sample ID: 480-47844-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	12.2	B ^	1.1	0.27	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: LMCU-SS-10 (Continued)

Lab Sample ID: 480-47844-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.55		0.45	0.11	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-17

Lab Sample ID: 480-47844-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	22		17	2.9	ug/Kg	1	☼	8260C	Total/NA
Lead	14.0	B ^	1.2	0.28	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	1.2		0.46	0.12	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-13

Lab Sample ID: 480-47844-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	24.8	B ^	1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.77		0.45	0.11	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-18

Lab Sample ID: 480-47844-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	3.0	B	1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.77		0.41	0.10	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-11

Lab Sample ID: 480-47844-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	34		23	1.7	ug/Kg	1	☼	8260C	Total/NA
Acetone	150		23	3.8	ug/Kg	1	☼	8260C	Total/NA
Benzene	3.4	J	4.5	0.22	ug/Kg	1	☼	8260C	Total/NA
cis-1,2-Dichloroethene	9.6		4.5	0.58	ug/Kg	1	☼	8260C	Total/NA
Cyclohexane	1.6	J	4.5	0.63	ug/Kg	1	☼	8260C	Total/NA
Ethylbenzene	10		4.5	0.31	ug/Kg	1	☼	8260C	Total/NA
Methylcyclohexane	5.7		4.5	0.69	ug/Kg	1	☼	8260C	Total/NA
Toluene	1.6	J	4.5	0.34	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	17		9.0	0.76	ug/Kg	1	☼	8260C	Total/NA
Lead	18.2	B ^	1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.58		0.48	0.12	mg/Kg	1	☼	7196A	Total/NA
Cyanide, Total	1.2		1.2	0.57	mg/Kg	1	☼	9012B	Total/NA

## Client Sample ID: LMCU-SS-14

Lab Sample ID: 480-47844-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	17.3	B ^	1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.12	J	0.48	0.12	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-28

Lab Sample ID: 480-47844-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	8.1	H	4.0	0.53	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene	2.9	J H	4.0	0.87	ug/Kg	1	☼	8260C	Total/NA
PCB-1254	140	J	230	110	ug/Kg	1	☼	8082A	Total/NA
Lead	16.1	B ^	0.95	0.23	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: LMCU-SS-28 (Continued)

Lab Sample ID: 480-47844-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.17	J	0.41	0.10	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: DUP-1

Lab Sample ID: 480-47844-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	16.6	B ^	1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.11	J	0.44	0.11	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: DUP-2

Lab Sample ID: 480-47844-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	18.4	B ^	1.3	0.31	mg/Kg	1	☼	6010C	Total/NA

## Client Sample ID: LMCU-SS-9

Lab Sample ID: 480-47844-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	27.3	B ^	1.5	0.35	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.50	J	0.55	0.14	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-8

Lab Sample ID: 480-47844-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	29.3	B ^	1.7	0.42	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.47	J	0.64	0.16	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-7

Lab Sample ID: 480-47844-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	350		24	1.8	ug/Kg	1	☼	8260C	Total/NA
Acetone	180		24	4.1	ug/Kg	1	☼	8260C	Total/NA
PCB-1254	2400		220	100	ug/Kg	1	☼	8082A	Total/NA
Lead	8.7	B ^	1.2	0.28	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.12	J	0.49	0.12	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-4

Lab Sample ID: 480-47844-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	35.7	B	1.4	0.34	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	1.4		0.58	0.14	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-2

Lab Sample ID: 480-47844-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	21.0	B	1.4	0.34	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	0.79		0.51	0.13	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-1

Lab Sample ID: 480-47844-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	13.4		1.2	0.28	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

# Detection Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: LMCU-SS-1 (Continued)

Lab Sample ID: 480-47844-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	2.0		0.47	0.12	mg/Kg	1	☼	7196A	Total/NA

## Client Sample ID: LMCU-SS-3

Lab Sample ID: 480-47844-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	24.1		1.3	0.32	mg/Kg	1	☼	6010C	Total/NA
Cr (VI)	1.4		0.49	0.12	mg/Kg	1	☼	7196A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo



# Client Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: FB**

**Lab Sample ID: 480-47844-1**

**Date Collected: 10/11/13 16:00**

**Matrix: Water**

**Date Received: 10/12/13 02:00**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/22/13 04:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			10/22/13 04:21	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			10/22/13 04:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			10/22/13 04:21	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			10/22/13 04:21	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			10/22/13 04:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			10/22/13 04:21	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			10/22/13 04:21	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			10/22/13 04:21	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/22/13 04:21	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			10/22/13 04:21	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			10/22/13 04:21	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			10/22/13 04:21	1
2-Butanone (MEK)	ND		10	1.3	ug/L			10/22/13 04:21	1
2-Hexanone	ND		5.0	1.2	ug/L			10/22/13 04:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			10/22/13 04:21	1
Acetone	ND		10	3.0	ug/L			10/22/13 04:21	1
Benzene	ND		1.0	0.41	ug/L			10/22/13 04:21	1
Bromodichloromethane	ND		1.0	0.39	ug/L			10/22/13 04:21	1
Bromoform	ND		1.0	0.26	ug/L			10/22/13 04:21	1
Bromomethane	ND		1.0	0.69	ug/L			10/22/13 04:21	1
Carbon disulfide	ND		1.0	0.19	ug/L			10/22/13 04:21	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			10/22/13 04:21	1
Chlorobenzene	ND		1.0	0.75	ug/L			10/22/13 04:21	1
Dibromochloromethane	ND		1.0	0.32	ug/L			10/22/13 04:21	1
Chloroethane	ND		1.0	0.32	ug/L			10/22/13 04:21	1
Chloroform	ND		1.0	0.34	ug/L			10/22/13 04:21	1
Chloromethane	ND		1.0	0.35	ug/L			10/22/13 04:21	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			10/22/13 04:21	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			10/22/13 04:21	1
Cyclohexane	ND		1.0	0.18	ug/L			10/22/13 04:21	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			10/22/13 04:21	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/22/13 04:21	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			10/22/13 04:21	1
Isopropylbenzene	ND		1.0	0.79	ug/L			10/22/13 04:21	1
Methyl acetate	ND		1.0	0.50	ug/L			10/22/13 04:21	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/22/13 04:21	1
Methylcyclohexane	ND		1.0	0.16	ug/L			10/22/13 04:21	1
Methylene Chloride	ND		1.0	0.44	ug/L			10/22/13 04:21	1
Styrene	ND		1.0	0.73	ug/L			10/22/13 04:21	1
Tetrachloroethene	ND		1.0	0.36	ug/L			10/22/13 04:21	1
Toluene	ND		1.0	0.51	ug/L			10/22/13 04:21	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			10/22/13 04:21	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			10/22/13 04:21	1
Trichloroethene	ND		1.0	0.46	ug/L			10/22/13 04:21	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			10/22/13 04:21	1
Vinyl chloride	ND		1.0	0.90	ug/L			10/22/13 04:21	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/22/13 04:21	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: FB

Lab Sample ID: 480-47844-1

Date Collected: 10/11/13 16:00

Matrix: Water

Date Received: 10/12/13 02:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		71 - 126		10/22/13 04:21	1
1,2-Dichloroethane-d4 (Surr)	111		66 - 137		10/22/13 04:21	1
4-Bromofluorobenzene (Surr)	100		73 - 120		10/22/13 04:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.46	0.16	ug/L		10/15/13 06:33	10/16/13 15:15	1
PCB-1221	ND		0.46	0.16	ug/L		10/15/13 06:33	10/16/13 15:15	1
PCB-1232	ND		0.46	0.16	ug/L		10/15/13 06:33	10/16/13 15:15	1
PCB-1242	ND		0.46	0.16	ug/L		10/15/13 06:33	10/16/13 15:15	1
PCB-1248	ND		0.46	0.16	ug/L		10/15/13 06:33	10/16/13 15:15	1
PCB-1254	ND		0.46	0.23	ug/L		10/15/13 06:33	10/16/13 15:15	1
PCB-1260	ND		0.46	0.23	ug/L		10/15/13 06:33	10/16/13 15:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		23 - 127	10/15/13 06:33	10/16/13 15:15	1
DCB Decachlorobiphenyl	71		19 - 126	10/15/13 06:33	10/16/13 15:15	1

### Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050	0.0030	mg/L		10/14/13 08:45	10/18/13 13:35	1
Silver	ND		0.0030	0.0017	mg/L		10/21/13 08:25	10/23/13 22:59	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			10/12/13 13:00	1
Cyanide, Total	ND		0.010	0.0050	mg/L		10/15/13 20:42	10/17/13 09:54	1

## Client Sample ID: TB

Lab Sample ID: 480-47844-2

Date Collected: 10/11/13 00:00

Matrix: Water

Date Received: 10/12/13 02:00

### Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/22/13 04:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			10/22/13 04:46	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			10/22/13 04:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			10/22/13 04:46	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			10/22/13 04:46	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			10/22/13 04:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			10/22/13 04:46	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			10/22/13 04:46	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			10/22/13 04:46	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/22/13 04:46	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			10/22/13 04:46	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			10/22/13 04:46	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			10/22/13 04:46	1
2-Butanone (MEK)	ND		10	1.3	ug/L			10/22/13 04:46	1
2-Hexanone	ND		5.0	1.2	ug/L			10/22/13 04:46	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			10/22/13 04:46	1
Acetone	ND		10	3.0	ug/L			10/22/13 04:46	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: TB**

**Lab Sample ID: 480-47844-2**

**Date Collected: 10/11/13 00:00**

**Matrix: Water**

**Date Received: 10/12/13 02:00**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			10/22/13 04:46	1
Bromodichloromethane	ND		1.0	0.39	ug/L			10/22/13 04:46	1
Bromoform	ND		1.0	0.26	ug/L			10/22/13 04:46	1
Bromomethane	ND		1.0	0.69	ug/L			10/22/13 04:46	1
Carbon disulfide	ND		1.0	0.19	ug/L			10/22/13 04:46	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			10/22/13 04:46	1
Chlorobenzene	ND		1.0	0.75	ug/L			10/22/13 04:46	1
Dibromochloromethane	ND		1.0	0.32	ug/L			10/22/13 04:46	1
Chloroethane	ND		1.0	0.32	ug/L			10/22/13 04:46	1
Chloroform	ND		1.0	0.34	ug/L			10/22/13 04:46	1
Chloromethane	ND		1.0	0.35	ug/L			10/22/13 04:46	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			10/22/13 04:46	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			10/22/13 04:46	1
Cyclohexane	ND		1.0	0.18	ug/L			10/22/13 04:46	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			10/22/13 04:46	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/22/13 04:46	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			10/22/13 04:46	1
Isopropylbenzene	ND		1.0	0.79	ug/L			10/22/13 04:46	1
Methyl acetate	ND		1.0	0.50	ug/L			10/22/13 04:46	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/22/13 04:46	1
Methylcyclohexane	ND		1.0	0.16	ug/L			10/22/13 04:46	1
Methylene Chloride	ND		1.0	0.44	ug/L			10/22/13 04:46	1
Styrene	ND		1.0	0.73	ug/L			10/22/13 04:46	1
Tetrachloroethene	ND		1.0	0.36	ug/L			10/22/13 04:46	1
Toluene	ND		1.0	0.51	ug/L			10/22/13 04:46	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			10/22/13 04:46	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			10/22/13 04:46	1
Trichloroethene	ND		1.0	0.46	ug/L			10/22/13 04:46	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			10/22/13 04:46	1
Vinyl chloride	ND		1.0	0.90	ug/L			10/22/13 04:46	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/22/13 04:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		71 - 126		10/22/13 04:46	1
1,2-Dichloroethane-d4 (Surr)	111		66 - 137		10/22/13 04:46	1
4-Bromofluorobenzene (Surr)	98		73 - 120		10/22/13 04:46	1

**Client Sample ID: LMCU-SS-6**

**Lab Sample ID: 480-47844-3**

**Date Collected: 10/11/13 11:45**

**Matrix: Solid**

**Date Received: 10/12/13 02:00**

**Percent Solids: 88.3**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.7	0.34	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
1,1,2,2-Tetrachloroethane	ND		4.7	0.77	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
1,1,2-Trichloroethane	ND		4.7	0.61	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.7	1.1	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
1,1-Dichloroethane	ND		4.7	0.58	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
1,1-Dichloroethene	ND		4.7	0.58	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
1,2,4-Trichlorobenzene	ND		4.7	0.29	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1

TestAmerica Buffalo



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-6**

**Lab Sample ID: 480-47844-3**

**Date Collected: 10/11/13 11:45**

**Matrix: Solid**

**Date Received: 10/12/13 02:00**

**Percent Solids: 88.3**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		4.7	2.4	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
1,2-Dichlorobenzene	ND		4.7	0.37	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
1,2-Dichloroethane	ND		4.7	0.24	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
1,2-Dichloropropane	ND		4.7	2.4	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
1,3-Dichlorobenzene	ND		4.7	0.24	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
1,4-Dichlorobenzene	ND		4.7	0.66	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
2-Butanone (MEK)	ND		24	1.7	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
2-Hexanone	ND		24	2.4	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
4-Methyl-2-pentanone (MIBK)	ND		24	1.6	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Acetone	ND		24	4.0	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Benzene	ND		4.7	0.23	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Bromodichloromethane	ND		4.7	0.63	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Bromoform	ND		4.7	2.4	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Bromomethane	ND		4.7	0.43	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Carbon disulfide	ND		4.7	2.4	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Carbon tetrachloride	ND		4.7	0.46	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Chlorobenzene	ND		4.7	0.62	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Dibromochloromethane	ND		4.7	0.61	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Chloroethane	ND		4.7	1.1	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Chloroform	ND		4.7	0.29	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Chloromethane	ND		4.7	0.29	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
cis-1,2-Dichloroethene	ND		4.7	0.61	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
cis-1,3-Dichloropropene	ND		4.7	0.68	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Cyclohexane	ND		4.7	0.66	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Dichlorodifluoromethane	ND		4.7	0.39	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
<b>Ethylbenzene</b>	<b>0.40</b>	<b>J</b>	4.7	0.33	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
1,2-Dibromoethane	ND		4.7	0.61	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Isopropylbenzene	ND		4.7	0.71	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Methyl acetate	ND		4.7	0.88	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Methyl tert-butyl ether	ND		4.7	0.46	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Methylcyclohexane	ND		4.7	0.72	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Methylene Chloride	ND		4.7	2.2	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Styrene	ND		4.7	0.24	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Tetrachloroethene	ND		4.7	0.63	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Toluene	ND		4.7	0.36	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
trans-1,2-Dichloroethene	ND		4.7	0.49	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
trans-1,3-Dichloropropene	ND		4.7	2.1	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Trichloroethene	ND		4.7	1.0	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Trichlorofluoromethane	ND		4.7	0.45	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
Vinyl chloride	ND		4.7	0.58	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1
<b>Xylenes, Total</b>	<b>1.9</b>	<b>J</b>	9.5	0.79	ug/Kg	☼	10/22/13 02:35	10/23/13 19:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		71 - 125	10/22/13 02:35	10/23/13 19:07	1
1,2-Dichloroethane-d4 (Surr)	100		64 - 126	10/22/13 02:35	10/23/13 19:07	1
4-Bromofluorobenzene (Surr)	110		72 - 126	10/22/13 02:35	10/23/13 19:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		240	47	ug/Kg	☼	10/14/13 10:44	10/15/13 19:47	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-6**

**Lab Sample ID: 480-47844-3**

Date Collected: 10/11/13 11:45

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 88.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	ND		240	47	ug/Kg	☼	10/14/13 10:44	10/15/13 19:47	1
PCB-1232	ND		240	47	ug/Kg	☼	10/14/13 10:44	10/15/13 19:47	1
PCB-1242	ND		240	47	ug/Kg	☼	10/14/13 10:44	10/15/13 19:47	1
PCB-1248	ND		240	47	ug/Kg	☼	10/14/13 10:44	10/15/13 19:47	1
PCB-1254	ND		240	110	ug/Kg	☼	10/14/13 10:44	10/15/13 19:47	1
PCB-1260	ND		240	110	ug/Kg	☼	10/14/13 10:44	10/15/13 19:47	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
DCB Decachlorobiphenyl	140		47 - 176				10/14/13 10:44	10/15/13 19:47	1
Tetrachloro-m-xylene	120		46 - 175				10/14/13 10:44	10/15/13 19:47	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	21.8	B	1.1	0.27	mg/Kg	☼	10/12/13 11:40	10/14/13 22:17	1
Silver	ND		0.57	0.23	mg/Kg	☼	10/12/13 11:40	10/14/13 22:17	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.33	J	0.45	0.11	mg/Kg	☼	10/16/13 10:25	10/18/13 15:05	1
Cyanide, Total	ND		1.1	0.51	mg/Kg	☼	10/17/13 09:45	10/17/13 20:03	1

**Client Sample ID: LMCU-SS-5**

**Lab Sample ID: 480-47844-4**

Date Collected: 10/11/13 12:30

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 73.2

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.1	0.37	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
1,1,2,2-Tetrachloroethane	ND		5.1	0.82	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
1,1,2-Trichloroethane	ND		5.1	0.66	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.1	1.2	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
1,1-Dichloroethane	ND		5.1	0.62	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
1,1-Dichloroethene	ND		5.1	0.62	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
1,2,4-Trichlorobenzene	ND		5.1	0.31	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
1,2-Dibromo-3-Chloropropane	ND		5.1	2.5	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
1,2-Dichlorobenzene	ND		5.1	0.40	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
1,2-Dichloroethane	ND		5.1	0.25	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
1,2-Dichloropropane	ND		5.1	2.5	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
1,3-Dichlorobenzene	ND		5.1	0.26	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
1,4-Dichlorobenzene	ND		5.1	0.71	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
2-Butanone (MEK)	ND		25	1.9	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
2-Hexanone	ND		25	2.5	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.7	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Acetone	ND		25	4.3	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Benzene	ND		5.1	0.25	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Bromodichloromethane	ND		5.1	0.68	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Bromoform	ND		5.1	2.5	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Bromomethane	ND		5.1	0.46	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Carbon disulfide	ND		5.1	2.5	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Carbon tetrachloride	ND		5.1	0.49	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-5**

**Lab Sample ID: 480-47844-4**

Date Collected: 10/11/13 12:30

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 73.2

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		5.1	0.67	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Dibromochloromethane	ND		5.1	0.65	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Chloroethane	ND		5.1	1.1	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Chloroform	ND		5.1	0.31	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Chloromethane	ND		5.1	0.31	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
cis-1,2-Dichloroethene	ND		5.1	0.65	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
cis-1,3-Dichloropropene	ND		5.1	0.73	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Cyclohexane	ND		5.1	0.71	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Dichlorodifluoromethane	ND		5.1	0.42	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
<b>Ethylbenzene</b>	<b>0.39</b>	<b>J</b>	5.1	0.35	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
1,2-Dibromoethane	ND		5.1	0.65	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Isopropylbenzene	ND		5.1	0.76	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Methyl acetate	ND		5.1	0.94	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Methyl tert-butyl ether	ND		5.1	0.50	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Methylcyclohexane	ND		5.1	0.77	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Methylene Chloride	ND		5.1	2.3	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Styrene	ND		5.1	0.25	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Tetrachloroethene	ND		5.1	0.68	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Toluene	ND		5.1	0.38	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
trans-1,2-Dichloroethene	ND		5.1	0.52	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
trans-1,3-Dichloropropene	ND		5.1	2.2	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Trichloroethene	ND		5.1	1.1	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Trichlorofluoromethane	ND		5.1	0.48	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
Vinyl chloride	ND		5.1	0.62	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1
<b>Xylenes, Total</b>	<b>1.9</b>	<b>J</b>	10	0.85	ug/Kg	☼	10/22/13 02:35	10/23/13 19:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		71 - 125	10/22/13 02:35	10/23/13 19:33	1
1,2-Dichloroethane-d4 (Surr)	102		64 - 126	10/22/13 02:35	10/23/13 19:33	1
4-Bromofluorobenzene (Surr)	110		72 - 126	10/22/13 02:35	10/23/13 19:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		240	48	ug/Kg	☼	10/14/13 10:44	10/15/13 20:02	1
PCB-1221	ND		240	48	ug/Kg	☼	10/14/13 10:44	10/15/13 20:02	1
PCB-1232	ND		240	48	ug/Kg	☼	10/14/13 10:44	10/15/13 20:02	1
PCB-1242	ND		240	48	ug/Kg	☼	10/14/13 10:44	10/15/13 20:02	1
PCB-1248	ND		240	48	ug/Kg	☼	10/14/13 10:44	10/15/13 20:02	1
PCB-1254	ND		240	110	ug/Kg	☼	10/14/13 10:44	10/15/13 20:02	1
PCB-1260	ND		240	110	ug/Kg	☼	10/14/13 10:44	10/15/13 20:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	122		47 - 176	10/14/13 10:44	10/15/13 20:02	1
Tetrachloro-m-xylene	113		46 - 175	10/14/13 10:44	10/15/13 20:02	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>21.1</b>	<b>B</b>	1.5	0.36	mg/Kg	☼	10/12/13 11:40	10/14/13 22:20	1
Silver	ND		0.75	0.30	mg/Kg	☼	10/12/13 11:40	10/14/13 22:20	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-5**

**Lab Sample ID: 480-47844-4**

Date Collected: 10/11/13 12:30

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 73.2

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.48	J	0.54	0.14	mg/Kg	☼	10/16/13 10:25	10/18/13 15:07	1
Cyanide, Total	ND		1.3	0.61	mg/Kg	☼	10/17/13 09:45	10/17/13 20:04	1

**Client Sample ID: LMCU-SS-12**

**Lab Sample ID: 480-47844-5**

Date Collected: 10/11/13 14:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 90.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.80	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
1,1,2-Trichloroethane	ND		5.0	0.64	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
1,1-Dichloroethane	ND		5.0	0.60	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
1,3-Dichlorobenzene	ND		5.0	0.25	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
1,4-Dichlorobenzene	ND		5.0	0.69	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
2-Hexanone	ND		25	2.5	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Acetone	ND		25	4.2	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Benzene	ND		5.0	0.24	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Bromodichloromethane	ND		5.0	0.66	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Bromoform	ND		5.0	2.5	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Bromomethane	ND		5.0	0.45	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Carbon disulfide	ND		5.0	2.5	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Chlorobenzene	ND		5.0	0.65	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Dibromochloromethane	ND		5.0	0.63	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Chloroethane	ND		5.0	1.1	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Chloroform	ND		5.0	0.31	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Chloromethane	ND		5.0	0.30	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
cis-1,2-Dichloroethene	ND		5.0	0.63	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
cis-1,3-Dichloropropene	ND		5.0	0.71	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Cyclohexane	ND		5.0	0.69	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Ethylbenzene	ND		5.0	0.34	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Methyl acetate	ND		5.0	0.92	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Methylcyclohexane	ND		5.0	0.75	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Methylene Chloride	ND		5.0	2.3	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Styrene	ND		5.0	0.25	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Tetrachloroethene	ND		5.0	0.66	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-12**

**Lab Sample ID: 480-47844-5**

Date Collected: 10/11/13 14:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 90.6

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		5.0	0.37	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
trans-1,2-Dichloroethene	ND		5.0	0.51	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Trichloroethene	ND		5.0	1.1	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
Vinyl chloride	ND		5.0	0.60	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1
<b>Xylenes, Total</b>	<b>1.5</b>	<b>J</b>	9.9	0.83	ug/Kg	☼	10/22/13 02:35	10/23/13 19:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		71 - 125	10/22/13 02:35	10/23/13 19:58	1
1,2-Dichloroethane-d4 (Surr)	101		64 - 126	10/22/13 02:35	10/23/13 19:58	1
4-Bromofluorobenzene (Surr)	108		72 - 126	10/22/13 02:35	10/23/13 19:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		260	50	ug/Kg	☼	10/14/13 10:44	10/15/13 20:17	1
PCB-1221	ND		260	50	ug/Kg	☼	10/14/13 10:44	10/15/13 20:17	1
PCB-1232	ND		260	50	ug/Kg	☼	10/14/13 10:44	10/15/13 20:17	1
PCB-1242	ND		260	50	ug/Kg	☼	10/14/13 10:44	10/15/13 20:17	1
PCB-1248	ND		260	50	ug/Kg	☼	10/14/13 10:44	10/15/13 20:17	1
PCB-1254	ND		260	120	ug/Kg	☼	10/14/13 10:44	10/15/13 20:17	1
PCB-1260	ND		260	120	ug/Kg	☼	10/14/13 10:44	10/15/13 20:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	127		47 - 176	10/14/13 10:44	10/15/13 20:17	1
Tetrachloro-m-xylene	116		46 - 175	10/14/13 10:44	10/15/13 20:17	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>23.8</b>	<b>B</b>	1.2	0.29	mg/Kg	☼	10/12/13 11:40	10/14/13 22:22	1
Silver	ND		0.60	0.24	mg/Kg	☼	10/12/13 11:40	10/14/13 22:22	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Cr (VI)</b>	<b>0.11</b>	<b>J</b>	0.44	0.11	mg/Kg	☼	10/16/13 10:25	10/18/13 14:54	1
Cyanide, Total	ND		1.1	0.53	mg/Kg	☼	10/17/13 09:45	10/17/13 20:05	1

**Client Sample ID: LMCU-SS-19**

**Lab Sample ID: 480-47844-6**

Date Collected: 10/11/13 15:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 83.6

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.2	0.38	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
1,1,2,2-Tetrachloroethane	ND		5.2	0.85	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
1,1,2-Trichloroethane	ND		5.2	0.68	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.2	1.2	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
1,1-Dichloroethane	ND		5.2	0.64	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
1,1-Dichloroethene	ND		5.2	0.64	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
1,2,4-Trichlorobenzene	ND		5.2	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
1,2-Dibromo-3-Chloropropane	ND		5.2	2.6	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-19**

**Lab Sample ID: 480-47844-6**

Date Collected: 10/11/13 15:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 83.6

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		5.2	0.41	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
1,2-Dichloroethane	ND		5.2	0.26	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
1,2-Dichloropropane	ND		5.2	2.6	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
1,3-Dichlorobenzene	ND		5.2	0.27	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
1,4-Dichlorobenzene	ND		5.2	0.73	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
2-Butanone (MEK)	ND		26	1.9	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Acetone	ND		26	4.4	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Benzene	ND		5.2	0.26	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Bromodichloromethane	ND		5.2	0.70	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Bromoform	ND		5.2	2.6	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Bromomethane	ND		5.2	0.47	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Carbon disulfide	ND		5.2	2.6	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Carbon tetrachloride	ND		5.2	0.51	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Chlorobenzene	ND		5.2	0.69	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Dibromochloromethane	ND		5.2	0.67	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Chloroethane	ND		5.2	1.2	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Chloroform	ND		5.2	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Chloromethane	ND		5.2	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
cis-1,2-Dichloroethene	ND		5.2	0.67	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
cis-1,3-Dichloropropene	ND		5.2	0.75	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Cyclohexane	ND		5.2	0.73	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Dichlorodifluoromethane	ND		5.2	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Ethylbenzene	ND		5.2	0.36	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
1,2-Dibromoethane	ND		5.2	0.67	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Isopropylbenzene	ND		5.2	0.79	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Methyl acetate	ND		5.2	0.97	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Methyl tert-butyl ether	ND		5.2	0.51	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Methylcyclohexane	ND		5.2	0.79	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Methylene Chloride	ND		5.2	2.4	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Styrene	ND		5.2	0.26	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Tetrachloroethene	ND *		5.2	0.70	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Toluene	ND		5.2	0.39	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
trans-1,2-Dichloroethene	ND		5.2	0.54	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
trans-1,3-Dichloropropene	ND		5.2	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Trichloroethene	ND		5.2	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Trichlorofluoromethane	ND		5.2	0.49	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Vinyl chloride	ND		5.2	0.64	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1
Xylenes, Total	ND		10	0.88	ug/Kg	☼	10/22/13 02:35	10/24/13 02:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	109		71 - 125	10/22/13 02:35	10/24/13 02:33	1
1,2-Dichloroethane-d4 (Surr)	99		64 - 126	10/22/13 02:35	10/24/13 02:33	1
4-Bromofluorobenzene (Surr)	109		72 - 126	10/22/13 02:35	10/24/13 02:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		250	48	ug/Kg	☼	10/14/13 10:44	10/15/13 21:01	1
PCB-1221	ND		250	48	ug/Kg	☼	10/14/13 10:44	10/15/13 21:01	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-19**

**Lab Sample ID: 480-47844-6**

Date Collected: 10/11/13 15:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 83.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		250	48	ug/Kg	☼	10/14/13 10:44	10/15/13 21:01	1
PCB-1242	ND		250	48	ug/Kg	☼	10/14/13 10:44	10/15/13 21:01	1
PCB-1248	ND		250	48	ug/Kg	☼	10/14/13 10:44	10/15/13 21:01	1
PCB-1254	ND		250	120	ug/Kg	☼	10/14/13 10:44	10/15/13 21:01	1
PCB-1260	ND		250	120	ug/Kg	☼	10/14/13 10:44	10/15/13 21:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	135		47 - 176				10/14/13 10:44	10/15/13 21:01	1
Tetrachloro-m-xylene	121		46 - 175				10/14/13 10:44	10/15/13 21:01	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	17.0	B ^	1.1	0.27	mg/Kg	☼	10/12/13 11:40	10/14/13 22:42	1
Silver	ND		0.56	0.22	mg/Kg	☼	10/12/13 11:40	10/14/13 22:42	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.42	J	0.47	0.12	mg/Kg	☼	10/16/13 10:25	10/18/13 15:09	1
Cyanide, Total	ND		1.1	0.56	mg/Kg	☼	10/17/13 16:35	10/18/13 14:40	1

**Client Sample ID: LMCU-SS-16**

**Lab Sample ID: 480-47844-7**

Date Collected: 10/11/13 10:00

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 88.3

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.1	0.30	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
1,1,2,2-Tetrachloroethane	ND		4.1	0.67	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
1,1,2-Trichloroethane	ND		4.1	0.54	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.1	0.94	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
1,1-Dichloroethane	ND		4.1	0.50	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
1,1-Dichloroethene	ND		4.1	0.51	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
1,2,4-Trichlorobenzene	ND		4.1	0.25	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
1,2-Dibromo-3-Chloropropane	ND		4.1	2.1	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
1,2-Dichlorobenzene	ND		4.1	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
1,2-Dichloroethane	ND		4.1	0.21	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
1,2-Dichloropropane	ND		4.1	2.1	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
1,3-Dichlorobenzene	ND		4.1	0.21	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
1,4-Dichlorobenzene	ND		4.1	0.58	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
2-Butanone (MEK)	ND		21	1.5	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
2-Hexanone	ND		21	2.1	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
4-Methyl-2-pentanone (MIBK)	ND		21	1.4	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Acetone	4.5	J	21	3.5	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Benzene	ND		4.1	0.20	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Bromodichloromethane	ND		4.1	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Bromoform	ND		4.1	2.1	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Bromomethane	ND		4.1	0.37	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Carbon disulfide	ND		4.1	2.1	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Carbon tetrachloride	ND		4.1	0.40	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Chlorobenzene	ND		4.1	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-16**

**Lab Sample ID: 480-47844-7**

Date Collected: 10/11/13 10:00

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 88.3

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		4.1	0.53	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Chloroethane	ND		4.1	0.93	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Chloroform	ND		4.1	0.26	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Chloromethane	ND		4.1	0.25	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
cis-1,2-Dichloroethene	ND		4.1	0.53	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
cis-1,3-Dichloropropene	ND		4.1	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Cyclohexane	ND		4.1	0.58	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Dichlorodifluoromethane	ND		4.1	0.34	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Ethylbenzene	ND		4.1	0.29	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
1,2-Dibromoethane	ND		4.1	0.53	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Isopropylbenzene	ND		4.1	0.62	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Methyl acetate	ND		4.1	0.77	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Methyl tert-butyl ether	ND		4.1	0.41	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Methylcyclohexane	ND		4.1	0.63	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Methylene Chloride	ND		4.1	1.9	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Styrene	ND		4.1	0.21	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Tetrachloroethene	ND *		4.1	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Toluene	ND		4.1	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
trans-1,2-Dichloroethene	ND		4.1	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
trans-1,3-Dichloropropene	ND		4.1	1.8	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Trichloroethene	ND		4.1	0.91	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Trichlorofluoromethane	ND		4.1	0.39	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Vinyl chloride	ND		4.1	0.50	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1
Xylenes, Total	ND		8.3	0.69	ug/Kg	☼	10/22/13 02:35	10/24/13 02:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		71 - 125	10/22/13 02:35	10/24/13 02:59	1
1,2-Dichloroethane-d4 (Surr)	108		64 - 126	10/22/13 02:35	10/24/13 02:59	1
4-Bromofluorobenzene (Surr)	113		72 - 126	10/22/13 02:35	10/24/13 02:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		220	43	ug/Kg	☼	10/14/13 10:44	10/15/13 21:16	1
PCB-1221	ND		220	43	ug/Kg	☼	10/14/13 10:44	10/15/13 21:16	1
PCB-1232	ND		220	43	ug/Kg	☼	10/14/13 10:44	10/15/13 21:16	1
PCB-1242	ND		220	43	ug/Kg	☼	10/14/13 10:44	10/15/13 21:16	1
PCB-1248	ND		220	43	ug/Kg	☼	10/14/13 10:44	10/15/13 21:16	1
PCB-1254	ND		220	100	ug/Kg	☼	10/14/13 10:44	10/15/13 21:16	1
PCB-1260	ND		220	100	ug/Kg	☼	10/14/13 10:44	10/15/13 21:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	131		47 - 176	10/14/13 10:44	10/15/13 21:16	1
Tetrachloro-m-xylene	120		46 - 175	10/14/13 10:44	10/15/13 21:16	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	25.0	B ^	1.1	0.26	mg/Kg	☼	10/12/13 11:40	10/14/13 22:44	1
Silver	ND		0.54	0.22	mg/Kg	☼	10/12/13 11:40	10/14/13 22:44	1

TestAmerica Buffalo



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-16**

**Lab Sample ID: 480-47844-7**

Date Collected: 10/11/13 10:00

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 88.3

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.83		0.44	0.11	mg/Kg	☼	10/16/13 10:25	10/18/13 15:10	1
Cyanide, Total	ND		1.0	0.50	mg/Kg	☼	10/17/13 09:45	10/17/13 20:08	1

**Client Sample ID: LMCU-SS-15**

**Lab Sample ID: 480-47844-8**

Date Collected: 10/11/13 11:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 80.6

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		6.2	0.45	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
1,1,2,2-Tetrachloroethane	ND		6.2	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
1,1,2-Trichloroethane	ND		6.2	0.80	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.2	1.4	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
1,1-Dichloroethane	ND		6.2	0.75	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
1,1-Dichloroethene	ND		6.2	0.75	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
1,2,4-Trichlorobenzene	ND		6.2	0.37	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
1,2-Dibromo-3-Chloropropane	ND		6.2	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
1,2-Dichlorobenzene	ND		6.2	0.48	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
1,2-Dichloroethane	ND		6.2	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
1,2-Dichloropropane	ND		6.2	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
1,3-Dichlorobenzene	ND		6.2	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
1,4-Dichlorobenzene	ND		6.2	0.86	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
2-Butanone (MEK)	ND		31	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
2-Hexanone	ND		31	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
4-Methyl-2-pentanone (MIBK)	ND		31	2.0	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Acetone	ND		31	5.2	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Benzene	ND		6.2	0.30	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Bromodichloromethane	ND		6.2	0.83	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Bromoform	ND		6.2	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Bromomethane	ND		6.2	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Carbon disulfide	ND		6.2	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Carbon tetrachloride	ND		6.2	0.60	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Chlorobenzene	ND		6.2	0.81	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Dibromochloromethane	ND		6.2	0.79	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Chloroethane	ND		6.2	1.4	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Chloroform	ND		6.2	0.38	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Chloromethane	ND		6.2	0.37	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
cis-1,2-Dichloroethene	ND		6.2	0.79	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
cis-1,3-Dichloropropene	ND		6.2	0.89	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Cyclohexane	ND		6.2	0.86	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Dichlorodifluoromethane	ND		6.2	0.51	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Ethylbenzene	ND		6.2	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
1,2-Dibromoethane	ND		6.2	0.79	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Isopropylbenzene	ND		6.2	0.93	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Methyl acetate	ND		6.2	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Methyl tert-butyl ether	ND		6.2	0.61	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Methylcyclohexane	ND		6.2	0.94	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Methylene Chloride	ND		6.2	2.8	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Styrene	ND		6.2	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Tetrachloroethene	ND *		6.2	0.83	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-15**

**Lab Sample ID: 480-47844-8**

Date Collected: 10/11/13 11:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 80.6

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		6.2	0.47	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
trans-1,2-Dichloroethene	ND		6.2	0.64	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
trans-1,3-Dichloropropene	ND		6.2	2.7	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Trichloroethene	ND		6.2	1.4	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Trichlorofluoromethane	ND		6.2	0.58	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Vinyl chloride	ND		6.2	0.75	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1
Xylenes, Total	ND		12	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 03:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	107		71 - 125	10/22/13 02:35	10/24/13 03:24	1
1,2-Dichloroethane-d4 (Surr)	104		64 - 126	10/22/13 02:35	10/24/13 03:24	1
4-Bromofluorobenzene (Surr)	111		72 - 126	10/22/13 02:35	10/24/13 03:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		280	54	ug/Kg	☼	10/14/13 10:44	10/15/13 22:00	1
PCB-1221	ND		280	54	ug/Kg	☼	10/14/13 10:44	10/15/13 22:00	1
PCB-1232	ND		280	54	ug/Kg	☼	10/14/13 10:44	10/15/13 22:00	1
PCB-1242	ND		280	54	ug/Kg	☼	10/14/13 10:44	10/15/13 22:00	1
PCB-1248	ND		280	54	ug/Kg	☼	10/14/13 10:44	10/15/13 22:00	1
<b>PCB-1254</b>	<b>350</b>		280	130	ug/Kg	☼	10/14/13 10:44	10/15/13 22:00	1
PCB-1260	ND		280	130	ug/Kg	☼	10/14/13 10:44	10/15/13 22:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	106		47 - 176	10/14/13 10:44	10/15/13 22:00	1
Tetrachloro-m-xylene	111		46 - 175	10/14/13 10:44	10/15/13 22:00	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>37.7</b>	<b>^</b>	1.3	0.32	mg/Kg	☼	11/26/13 14:35	11/27/13 12:15	1
Silver	ND		0.66	0.26	mg/Kg	☼	10/12/13 11:40	10/14/13 22:47	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50	0.12	mg/Kg	☼	10/16/13 10:42	10/18/13 12:27	1
Cyanide, Total	ND		1.2	0.57	mg/Kg	☼	10/17/13 16:35	10/18/13 14:32	1

**Client Sample ID: LMCU-SS-10**

**Lab Sample ID: 480-47844-9**

Date Collected: 10/10/13 17:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 87.6

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		6.2	0.45	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
1,1,2,2-Tetrachloroethane	ND		6.2	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
1,1,2-Trichloroethane	ND		6.2	0.81	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.2	1.4	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
1,1-Dichloroethane	ND		6.2	0.76	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
1,1-Dichloroethene	ND		6.2	0.76	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
1,2,4-Trichlorobenzene	ND		6.2	0.38	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
1,2-Dibromo-3-Chloropropane	ND		6.2	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-10**

**Lab Sample ID: 480-47844-9**

Date Collected: 10/10/13 17:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 87.6

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		6.2	0.49	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
1,2-Dichloroethane	ND		6.2	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
1,2-Dichloropropane	ND		6.2	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
1,3-Dichlorobenzene	ND		6.2	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
1,4-Dichlorobenzene	ND		6.2	0.87	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
2-Butanone (MEK)	ND		31	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
2-Hexanone	ND		31	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
4-Methyl-2-pentanone (MIBK)	ND		31	2.0	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Acetone	ND		31	5.2	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Benzene	ND		6.2	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Bromodichloromethane	ND		6.2	0.83	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Bromoform	ND		6.2	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Bromomethane	ND		6.2	0.56	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Carbon disulfide	ND		6.2	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Carbon tetrachloride	ND		6.2	0.60	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Chlorobenzene	ND		6.2	0.82	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Dibromochloromethane	ND		6.2	0.80	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Chloroethane	ND		6.2	1.4	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Chloroform	ND		6.2	0.39	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Chloromethane	ND		6.2	0.38	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
cis-1,2-Dichloroethene	ND		6.2	0.80	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
cis-1,3-Dichloropropene	ND		6.2	0.90	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Cyclohexane	ND		6.2	0.87	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Dichlorodifluoromethane	ND		6.2	0.51	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Ethylbenzene	ND		6.2	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
1,2-Dibromoethane	ND		6.2	0.80	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Isopropylbenzene	ND		6.2	0.94	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Methyl acetate	ND		6.2	1.2	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Methyl tert-butyl ether	ND		6.2	0.61	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Methylcyclohexane	ND		6.2	0.95	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Methylene Chloride	ND		6.2	2.9	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Styrene	ND		6.2	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Tetrachloroethene	ND *		6.2	0.84	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Toluene	ND		6.2	0.47	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
trans-1,2-Dichloroethene	ND		6.2	0.64	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
trans-1,3-Dichloropropene	ND		6.2	2.7	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Trichloroethene	ND		6.2	1.4	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Trichlorofluoromethane	ND		6.2	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Vinyl chloride	ND		6.2	0.76	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1
Xylenes, Total	ND		12	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 04:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		71 - 125	10/22/13 02:35	10/24/13 04:40	1
1,2-Dichloroethane-d4 (Surr)	101		64 - 126	10/22/13 02:35	10/24/13 04:40	1
4-Bromofluorobenzene (Surr)	110		72 - 126	10/22/13 02:35	10/24/13 04:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		270	52	ug/Kg	☼	10/14/13 10:44	10/15/13 22:45	1
PCB-1221	ND		270	52	ug/Kg	☼	10/14/13 10:44	10/15/13 22:45	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-10**

**Lab Sample ID: 480-47844-9**

Date Collected: 10/10/13 17:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 87.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		270	52	ug/Kg	☼	10/14/13 10:44	10/15/13 22:45	1
PCB-1242	ND		270	52	ug/Kg	☼	10/14/13 10:44	10/15/13 22:45	1
PCB-1248	ND		270	52	ug/Kg	☼	10/14/13 10:44	10/15/13 22:45	1
PCB-1254	ND		270	130	ug/Kg	☼	10/14/13 10:44	10/15/13 22:45	1
PCB-1260	ND		270	130	ug/Kg	☼	10/14/13 10:44	10/15/13 22:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	145		47 - 176				10/14/13 10:44	10/15/13 22:45	1
Tetrachloro-m-xylene	117		46 - 175				10/14/13 10:44	10/15/13 22:45	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	12.2	B ^	1.1	0.27	mg/Kg	☼	10/12/13 11:40	10/14/13 22:54	1
Silver	ND		0.56	0.22	mg/Kg	☼	10/12/13 11:40	10/14/13 22:54	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.55		0.45	0.11	mg/Kg	☼	10/16/13 10:25	10/18/13 15:12	1
Cyanide, Total	ND		1.1	0.51	mg/Kg	☼	10/17/13 16:35	10/18/13 14:37	1

**Client Sample ID: LMCU-SS-17**

**Lab Sample ID: 480-47844-10**

Date Collected: 10/10/13 16:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 88.0

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.4	0.25	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
1,1,2,2-Tetrachloroethane	ND		3.4	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
1,1,2-Trichloroethane	ND		3.4	0.44	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.4	0.77	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
1,1-Dichloroethane	ND		3.4	0.41	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
1,1-Dichloroethene	ND		3.4	0.42	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
1,2,4-Trichlorobenzene	ND		3.4	0.21	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
1,2-Dibromo-3-Chloropropane	ND		3.4	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
1,2-Dichlorobenzene	ND		3.4	0.27	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
1,2-Dichloroethane	ND		3.4	0.17	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
1,2-Dichloropropane	ND		3.4	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
1,3-Dichlorobenzene	ND		3.4	0.17	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
1,4-Dichlorobenzene	ND		3.4	0.48	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
2-Butanone (MEK)	ND		17	1.2	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
2-Hexanone	ND		17	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
4-Methyl-2-pentanone (MIBK)	ND		17	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Acetone	22		17	2.9	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Benzene	ND		3.4	0.17	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Bromodichloromethane	ND		3.4	0.45	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Bromoform	ND		3.4	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Bromomethane	ND		3.4	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Carbon disulfide	ND		3.4	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Carbon tetrachloride	ND		3.4	0.33	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Chlorobenzene	ND		3.4	0.45	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-17**

**Lab Sample ID: 480-47844-10**

Date Collected: 10/10/13 16:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 88.0

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		3.4	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Chloroethane	ND		3.4	0.77	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Chloroform	ND		3.4	0.21	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Chloromethane	ND		3.4	0.21	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
cis-1,2-Dichloroethene	ND		3.4	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
cis-1,3-Dichloropropene	ND		3.4	0.49	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Cyclohexane	ND		3.4	0.48	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Dichlorodifluoromethane	ND		3.4	0.28	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Ethylbenzene	ND		3.4	0.23	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
1,2-Dibromoethane	ND		3.4	0.44	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Isopropylbenzene	ND		3.4	0.51	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Methyl acetate	ND		3.4	0.63	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Methyl tert-butyl ether	ND		3.4	0.33	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Methylcyclohexane	ND		3.4	0.52	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Methylene Chloride	ND		3.4	1.6	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Styrene	ND		3.4	0.17	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Tetrachloroethene	ND *		3.4	0.46	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Toluene	ND		3.4	0.26	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
trans-1,2-Dichloroethene	ND		3.4	0.35	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
trans-1,3-Dichloropropene	ND		3.4	1.5	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Trichloroethene	ND		3.4	0.75	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Trichlorofluoromethane	ND		3.4	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Vinyl chloride	ND		3.4	0.41	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1
Xylenes, Total	ND		6.8	0.57	ug/Kg	☼	10/22/13 02:35	10/24/13 05:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		71 - 125	10/22/13 02:35	10/24/13 05:06	1
1,2-Dichloroethane-d4 (Surr)	106		64 - 126	10/22/13 02:35	10/24/13 05:06	1
4-Bromofluorobenzene (Surr)	111		72 - 126	10/22/13 02:35	10/24/13 05:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		260	52	ug/Kg	☼	10/14/13 10:44	10/15/13 22:59	1
PCB-1221	ND		260	52	ug/Kg	☼	10/14/13 10:44	10/15/13 22:59	1
PCB-1232	ND		260	52	ug/Kg	☼	10/14/13 10:44	10/15/13 22:59	1
PCB-1242	ND		260	52	ug/Kg	☼	10/14/13 10:44	10/15/13 22:59	1
PCB-1248	ND		260	52	ug/Kg	☼	10/14/13 10:44	10/15/13 22:59	1
PCB-1254	ND		260	120	ug/Kg	☼	10/14/13 10:44	10/15/13 22:59	1
PCB-1260	ND		260	120	ug/Kg	☼	10/14/13 10:44	10/15/13 22:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	131		47 - 176	10/14/13 10:44	10/15/13 22:59	1
Tetrachloro-m-xylene	118		46 - 175	10/14/13 10:44	10/15/13 22:59	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	14.0	B ^	1.2	0.28	mg/Kg	☼	10/12/13 11:40	10/14/13 22:56	1
Silver	ND		0.58	0.23	mg/Kg	☼	10/12/13 11:40	10/14/13 22:56	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-17**

**Lab Sample ID: 480-47844-10**

Date Collected: 10/10/13 16:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 88.0

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	1.2		0.46	0.12	mg/Kg	☼	10/16/13 10:25	10/18/13 15:14	1
Cyanide, Total	ND		1.1	0.52	mg/Kg	☼	10/17/13 16:35	10/18/13 14:35	1

**Client Sample ID: LMCU-SS-13**

**Lab Sample ID: 480-47844-11**

Date Collected: 10/10/13 17:14

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 88.9

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.5	0.26	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
1,1,2,2-Tetrachloroethane	ND		3.5	0.57	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
1,1,2-Trichloroethane	ND		3.5	0.46	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.5	0.80	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
1,1-Dichloroethane	ND		3.5	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
1,1-Dichloroethene	ND		3.5	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
1,2,4-Trichlorobenzene	ND		3.5	0.21	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
1,2-Dibromo-3-Chloropropane	ND		3.5	1.8	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
1,2-Dichlorobenzene	ND		3.5	0.27	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
1,2-Dichloroethane	ND		3.5	0.18	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
1,2-Dichloropropane	ND		3.5	1.8	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
1,3-Dichlorobenzene	ND		3.5	0.18	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
1,4-Dichlorobenzene	ND		3.5	0.49	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
2-Butanone (MEK)	ND		18	1.3	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
2-Hexanone	ND		18	1.8	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
4-Methyl-2-pentanone (MIBK)	ND		18	1.2	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Acetone	ND		18	3.0	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Benzene	ND		3.5	0.17	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Bromodichloromethane	ND		3.5	0.47	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Bromoform	ND		3.5	1.8	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Bromomethane	ND		3.5	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Carbon disulfide	ND		3.5	1.8	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Carbon tetrachloride	ND		3.5	0.34	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Chlorobenzene	ND		3.5	0.46	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Dibromochloromethane	ND		3.5	0.45	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Chloroethane	ND		3.5	0.79	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Chloroform	ND		3.5	0.22	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Chloromethane	ND		3.5	0.21	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
cis-1,2-Dichloroethene	ND		3.5	0.45	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
cis-1,3-Dichloropropene	ND		3.5	0.51	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Cyclohexane	ND		3.5	0.49	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Dichlorodifluoromethane	ND		3.5	0.29	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Ethylbenzene	ND		3.5	0.24	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
1,2-Dibromoethane	ND		3.5	0.45	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Isopropylbenzene	ND		3.5	0.53	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Methyl acetate	ND		3.5	0.65	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Methyl tert-butyl ether	ND		3.5	0.35	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Methylcyclohexane	ND		3.5	0.53	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Methylene Chloride	ND		3.5	1.6	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Styrene	ND		3.5	0.18	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Tetrachloroethene	ND	*	3.5	0.47	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-13**

**Lab Sample ID: 480-47844-11**

Date Collected: 10/10/13 17:14

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 88.9

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		3.5	0.27	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
trans-1,2-Dichloroethene	ND		3.5	0.36	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
trans-1,3-Dichloropropene	ND		3.5	1.5	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Trichloroethene	ND		3.5	0.77	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Trichlorofluoromethane	ND		3.5	0.33	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Vinyl chloride	ND		3.5	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1
Xylenes, Total	ND		7.0	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 05:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		71 - 125	10/22/13 02:35	10/24/13 05:31	1
1,2-Dichloroethane-d4 (Surr)	105		64 - 126	10/22/13 02:35	10/24/13 05:31	1
4-Bromofluorobenzene (Surr)	109		72 - 126	10/22/13 02:35	10/24/13 05:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		270	53	ug/Kg	☼	10/14/13 10:44	10/15/13 23:14	1
PCB-1221	ND		270	53	ug/Kg	☼	10/14/13 10:44	10/15/13 23:14	1
PCB-1232	ND		270	53	ug/Kg	☼	10/14/13 10:44	10/15/13 23:14	1
PCB-1242	ND		270	53	ug/Kg	☼	10/14/13 10:44	10/15/13 23:14	1
PCB-1248	ND		270	53	ug/Kg	☼	10/14/13 10:44	10/15/13 23:14	1
PCB-1254	ND		270	130	ug/Kg	☼	10/14/13 10:44	10/15/13 23:14	1
PCB-1260	ND		270	130	ug/Kg	☼	10/14/13 10:44	10/15/13 23:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	139		47 - 176	10/14/13 10:44	10/15/13 23:14	1
Tetrachloro-m-xylene	120		46 - 175	10/14/13 10:44	10/15/13 23:14	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	24.8	B ^	1.1	0.27	mg/Kg	☼	10/12/13 11:40	10/14/13 22:59	1
Silver	ND		0.56	0.22	mg/Kg	☼	10/12/13 11:40	10/14/13 22:59	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.77		0.45	0.11	mg/Kg	☼	10/16/13 10:25	10/18/13 15:15	1
Cyanide, Total	ND		1.1	0.51	mg/Kg	☼	10/17/13 16:35	10/18/13 14:41	1

**Client Sample ID: LMCU-SS-18**

**Lab Sample ID: 480-47844-13**

Date Collected: 10/10/13 09:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 95.7

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.3	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
1,1,1,2-Tetrachloroethane	ND		4.3	0.70	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
1,1,2-Trichloroethane	ND		4.3	0.56	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.3	0.98	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
1,1-Dichloroethane	ND		4.3	0.52	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
1,1-Dichloroethene	ND		4.3	0.53	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
1,2,4-Trichlorobenzene	ND		4.3	0.26	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
1,2-Dibromo-3-Chloropropane	ND		4.3	2.2	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-18**

**Lab Sample ID: 480-47844-13**

Date Collected: 10/10/13 09:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 95.7

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		4.3	0.34	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
1,2-Dichloroethane	ND		4.3	0.22	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
1,2-Dichloropropane	ND		4.3	2.2	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
1,3-Dichlorobenzene	ND		4.3	0.22	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
1,4-Dichlorobenzene	ND		4.3	0.60	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
2-Butanone (MEK)	ND		22	1.6	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
2-Hexanone	ND		22	2.2	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
4-Methyl-2-pentanone (MIBK)	ND		22	1.4	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Acetone	ND		22	3.6	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Benzene	ND		4.3	0.21	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Bromodichloromethane	ND		4.3	0.58	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Bromoform	ND		4.3	2.2	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Bromomethane	ND		4.3	0.39	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Carbon disulfide	ND		4.3	2.2	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Carbon tetrachloride	ND		4.3	0.42	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Chlorobenzene	ND		4.3	0.57	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Dibromochloromethane	ND		4.3	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Chloroethane	ND		4.3	0.97	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Chloroform	ND		4.3	0.27	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Chloromethane	ND		4.3	0.26	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
cis-1,2-Dichloroethene	ND		4.3	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
cis-1,3-Dichloropropene	ND		4.3	0.62	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Cyclohexane	ND		4.3	0.60	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Dichlorodifluoromethane	ND		4.3	0.36	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Ethylbenzene	ND		4.3	0.30	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
1,2-Dibromoethane	ND		4.3	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Isopropylbenzene	ND		4.3	0.65	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Methyl acetate	ND		4.3	0.80	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Methyl tert-butyl ether	ND		4.3	0.42	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Methylcyclohexane	ND		4.3	0.65	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Methylene Chloride	ND		4.3	2.0	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Styrene	ND		4.3	0.22	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Tetrachloroethene	ND *		4.3	0.58	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Toluene	ND		4.3	0.33	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
trans-1,2-Dichloroethene	ND		4.3	0.44	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
trans-1,3-Dichloropropene	ND		4.3	1.9	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Trichloroethene	ND		4.3	0.95	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Trichlorofluoromethane	ND		4.3	0.41	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Vinyl chloride	ND		4.3	0.52	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1
Xylenes, Total	ND		8.6	0.72	ug/Kg	☼	10/22/13 02:35	10/24/13 05:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		71 - 125	10/22/13 02:35	10/24/13 05:57	1
1,2-Dichloroethane-d4 (Surr)	101		64 - 126	10/22/13 02:35	10/24/13 05:57	1
4-Bromofluorobenzene (Surr)	109		72 - 126	10/22/13 02:35	10/24/13 05:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		240	46	ug/Kg	☼	10/14/13 10:44	10/15/13 23:29	1
PCB-1221	ND		240	46	ug/Kg	☼	10/14/13 10:44	10/15/13 23:29	1

TestAmerica Buffalo



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-18**

**Lab Sample ID: 480-47844-13**

Date Collected: 10/10/13 09:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 95.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		240	46	ug/Kg	☼	10/14/13 10:44	10/15/13 23:29	1
PCB-1242	ND		240	46	ug/Kg	☼	10/14/13 10:44	10/15/13 23:29	1
PCB-1248	ND		240	46	ug/Kg	☼	10/14/13 10:44	10/15/13 23:29	1
PCB-1254	ND		240	110	ug/Kg	☼	10/14/13 10:44	10/15/13 23:29	1
PCB-1260	ND		240	110	ug/Kg	☼	10/14/13 10:44	10/15/13 23:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	144		47 - 176				10/14/13 10:44	10/15/13 23:29	1
Tetrachloro-m-xylene	121		46 - 175				10/14/13 10:44	10/15/13 23:29	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	3.0	B	1.1	0.26	mg/Kg	☼	10/12/13 11:40	10/17/13 18:55	1
Silver	ND		0.54	0.22	mg/Kg	☼	10/12/13 11:40	10/14/13 23:09	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.77		0.41	0.10	mg/Kg	☼	10/16/13 10:25	10/18/13 15:17	1
Cyanide, Total	ND		1.0	0.48	mg/Kg	☼	10/17/13 16:35	10/18/13 14:36	1

**Client Sample ID: LMCU-SS-11**

**Lab Sample ID: 480-47844-14**

Date Collected: 10/10/13 11:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 83.4

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.5	0.33	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
1,1,2,2-Tetrachloroethane	ND		4.5	0.73	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
1,1,2-Trichloroethane	ND		4.5	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.5	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
1,1-Dichloroethane	ND		4.5	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
1,1-Dichloroethene	ND		4.5	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
1,2,4-Trichlorobenzene	ND		4.5	0.27	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
1,2-Dibromo-3-Chloropropane	ND		4.5	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
1,2-Dichlorobenzene	ND		4.5	0.35	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
1,2-Dichloroethane	ND		4.5	0.23	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
1,2-Dichloropropane	ND		4.5	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
1,3-Dichlorobenzene	ND		4.5	0.23	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
1,4-Dichlorobenzene	ND		4.5	0.63	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
2-Butanone (MEK)	34		23	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
2-Hexanone	ND		23	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
4-Methyl-2-pentanone (MIBK)	ND		23	1.5	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Acetone	150		23	3.8	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Benzene	3.4	J	4.5	0.22	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Bromodichloromethane	ND		4.5	0.61	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Bromoform	ND		4.5	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Bromomethane	ND		4.5	0.41	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Carbon disulfide	ND		4.5	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Carbon tetrachloride	ND		4.5	0.44	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Chlorobenzene	ND		4.5	0.60	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-11**

**Lab Sample ID: 480-47844-14**

Date Collected: 10/10/13 11:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 83.4

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		4.5	0.58	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Chloroethane	ND		4.5	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Chloroform	ND		4.5	0.28	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Chloromethane	ND		4.5	0.27	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
<b>cis-1,2-Dichloroethene</b>	<b>9.6</b>		4.5	0.58	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
cis-1,3-Dichloropropene	ND		4.5	0.65	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
<b>Cyclohexane</b>	<b>1.6</b>	<b>J</b>	4.5	0.63	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Dichlorodifluoromethane	ND		4.5	0.37	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
<b>Ethylbenzene</b>	<b>10</b>		4.5	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
1,2-Dibromoethane	ND		4.5	0.58	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Isopropylbenzene	ND		4.5	0.68	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Methyl acetate	ND		4.5	0.84	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Methyl tert-butyl ether	ND		4.5	0.44	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
<b>Methylcyclohexane</b>	<b>5.7</b>		4.5	0.69	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Methylene Chloride	ND		4.5	2.1	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Styrene	ND		4.5	0.23	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Tetrachloroethene	ND	*	4.5	0.61	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
<b>Toluene</b>	<b>1.6</b>	<b>J</b>	4.5	0.34	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
trans-1,2-Dichloroethene	ND		4.5	0.47	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
trans-1,3-Dichloropropene	ND		4.5	2.0	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Trichloroethene	ND		4.5	0.99	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Trichlorofluoromethane	ND		4.5	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
Vinyl chloride	ND		4.5	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1
<b>Xylenes, Total</b>	<b>17</b>		9.0	0.76	ug/Kg	☼	10/22/13 02:35	10/24/13 06:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	106		71 - 125	10/22/13 02:35	10/24/13 06:22	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	110		64 - 126	10/22/13 02:35	10/24/13 06:22	1
<i>4-Bromofluorobenzene (Surr)</i>	111		72 - 126	10/22/13 02:35	10/24/13 06:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		280	55	ug/Kg	☼	10/14/13 10:44	10/15/13 23:44	1
PCB-1221	ND		280	55	ug/Kg	☼	10/14/13 10:44	10/15/13 23:44	1
PCB-1232	ND		280	55	ug/Kg	☼	10/14/13 10:44	10/15/13 23:44	1
PCB-1242	ND		280	55	ug/Kg	☼	10/14/13 10:44	10/15/13 23:44	1
PCB-1248	ND		280	55	ug/Kg	☼	10/14/13 10:44	10/15/13 23:44	1
PCB-1254	ND		280	130	ug/Kg	☼	10/14/13 10:44	10/15/13 23:44	1
PCB-1260	ND		280	130	ug/Kg	☼	10/14/13 10:44	10/15/13 23:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>DCB Decachlorobiphenyl</i>	137		47 - 176	10/14/13 10:44	10/15/13 23:44	1
<i>Tetrachloro-m-xylene</i>	106		46 - 175	10/14/13 10:44	10/15/13 23:44	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>18.2</b>	<b>B ^</b>	1.2	0.29	mg/Kg	☼	10/12/13 11:40	10/14/13 23:11	1
Silver	ND		0.60	0.24	mg/Kg	☼	10/12/13 11:40	10/14/13 23:11	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-11**

**Lab Sample ID: 480-47844-14**

Date Collected: 10/10/13 11:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 83.4

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.58		0.48	0.12	mg/Kg	☼	10/16/13 10:25	10/18/13 15:19	1
Cyanide, Total	1.2		1.2	0.57	mg/Kg	☼	10/17/13 16:35	10/18/13 14:38	1

**Client Sample ID: LMCU-SS-14**

**Lab Sample ID: 480-47844-15**

Date Collected: 10/10/13 13:30

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 85.0

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.4	0.25	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
1,1,2,2-Tetrachloroethane	ND		3.4	0.56	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
1,1,2-Trichloroethane	ND		3.4	0.45	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.4	0.78	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
1,1-Dichloroethane	ND		3.4	0.42	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
1,1-Dichloroethene	ND		3.4	0.42	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
1,2,4-Trichlorobenzene	ND		3.4	0.21	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
1,2-Dibromo-3-Chloropropane	ND		3.4	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
1,2-Dichlorobenzene	ND		3.4	0.27	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
1,2-Dichloroethane	ND		3.4	0.17	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
1,2-Dichloropropane	ND		3.4	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
1,3-Dichlorobenzene	ND		3.4	0.18	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
1,4-Dichlorobenzene	ND		3.4	0.48	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
2-Butanone (MEK)	ND		17	1.3	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
2-Hexanone	ND		17	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
4-Methyl-2-pentanone (MIBK)	ND		17	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Acetone	ND		17	2.9	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Benzene	ND		3.4	0.17	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Bromodichloromethane	ND		3.4	0.46	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Bromoform	ND		3.4	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Bromomethane	ND		3.4	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Carbon disulfide	ND		3.4	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Carbon tetrachloride	ND		3.4	0.33	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Chlorobenzene	ND		3.4	0.45	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Dibromochloromethane	ND		3.4	0.44	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Chloroethane	ND		3.4	0.77	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Chloroform	ND		3.4	0.21	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Chloromethane	ND		3.4	0.21	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
cis-1,2-Dichloroethene	ND		3.4	0.44	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
cis-1,3-Dichloropropene	ND		3.4	0.49	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Cyclohexane	ND		3.4	0.48	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Dichlorodifluoromethane	ND		3.4	0.28	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Ethylbenzene	ND		3.4	0.24	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
1,2-Dibromoethane	ND		3.4	0.44	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Isopropylbenzene	ND		3.4	0.52	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Methyl acetate	ND		3.4	0.64	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Methyl tert-butyl ether	ND		3.4	0.34	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Methylcyclohexane	ND		3.4	0.52	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Methylene Chloride	ND		3.4	1.6	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Styrene	ND		3.4	0.17	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Tetrachloroethene	ND *		3.4	0.46	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-14**

**Lab Sample ID: 480-47844-15**

Date Collected: 10/10/13 13:30

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 85.0

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		3.4	0.26	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
trans-1,2-Dichloroethene	ND		3.4	0.35	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
trans-1,3-Dichloropropene	ND		3.4	1.5	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Trichloroethene	ND		3.4	0.75	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Trichlorofluoromethane	ND		3.4	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Vinyl chloride	ND		3.4	0.42	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1
Xylenes, Total	ND		6.9	0.58	ug/Kg	☼	10/22/13 02:35	10/24/13 06:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		71 - 125	10/22/13 02:35	10/24/13 06:48	1
1,2-Dichloroethane-d4 (Surr)	105		64 - 126	10/22/13 02:35	10/24/13 06:48	1
4-Bromofluorobenzene (Surr)	108		72 - 126	10/22/13 02:35	10/24/13 06:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		240	47	ug/Kg	☼	10/14/13 10:44	10/15/13 23:59	1
PCB-1221	ND		240	47	ug/Kg	☼	10/14/13 10:44	10/15/13 23:59	1
PCB-1232	ND		240	47	ug/Kg	☼	10/14/13 10:44	10/15/13 23:59	1
PCB-1242	ND		240	47	ug/Kg	☼	10/14/13 10:44	10/15/13 23:59	1
PCB-1248	ND		240	47	ug/Kg	☼	10/14/13 10:44	10/15/13 23:59	1
PCB-1254	ND		240	110	ug/Kg	☼	10/14/13 10:44	10/15/13 23:59	1
PCB-1260	ND		240	110	ug/Kg	☼	10/14/13 10:44	10/15/13 23:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	126		47 - 176	10/14/13 10:44	10/15/13 23:59	1
Tetrachloro-m-xylene	115		46 - 175	10/14/13 10:44	10/15/13 23:59	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	17.3	B ^	1.2	0.29	mg/Kg	☼	10/12/13 11:40	10/14/13 23:13	1
Silver	ND		0.60	0.24	mg/Kg	☼	10/12/13 11:40	10/14/13 23:13	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.12	J	0.48	0.12	mg/Kg	☼	10/16/13 10:42	10/18/13 12:38	1
Cyanide, Total	ND		1.1	0.54	mg/Kg	☼	10/17/13 16:35	10/18/13 14:42	1

**Client Sample ID: LMCU-SS-28**

**Lab Sample ID: 480-47844-16**

Date Collected: 10/10/13 15:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 95.2

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	H	4.0	0.29	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
1,1,2,2-Tetrachloroethane	ND	H	4.0	0.64	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
1,1,2-Trichloroethane	ND	H	4.0	0.51	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	H	4.0	0.90	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
1,1-Dichloroethane	ND	H	4.0	0.48	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
1,1-Dichloroethene	ND	H	4.0	0.48	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
1,2,4-Trichlorobenzene	ND	H	4.0	0.24	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
1,2-Dibromo-3-Chloropropane	ND	H	4.0	2.0	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-28**

**Lab Sample ID: 480-47844-16**

Date Collected: 10/10/13 15:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 95.2

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND	H	4.0	0.31	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
1,2-Dichloroethane	ND	H	4.0	0.20	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
1,2-Dichloropropane	ND	H	4.0	2.0	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
1,3-Dichlorobenzene	ND	H	4.0	0.20	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
1,4-Dichlorobenzene	ND	H	4.0	0.55	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
2-Butanone (MEK)	ND	H	20	1.4	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
2-Hexanone	ND	H	20	2.0	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
4-Methyl-2-pentanone (MIBK)	ND	H	20	1.3	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Acetone	ND	H	20	3.3	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Benzene	ND	H	4.0	0.19	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Bromodichloromethane	ND	H	4.0	0.53	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Bromoform	ND	H	4.0	2.0	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Bromomethane	ND	H	4.0	0.36	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Carbon disulfide	ND	H	4.0	2.0	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Carbon tetrachloride	ND	H	4.0	0.38	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Chlorobenzene	ND	H	4.0	0.52	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Dibromochloromethane	ND	H	4.0	0.51	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Chloroethane	ND	H	4.0	0.89	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Chloroform	ND	H	4.0	0.24	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Chloromethane	ND	H	4.0	0.24	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
cis-1,2-Dichloroethene	ND	H	4.0	0.51	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
cis-1,3-Dichloropropene	ND	H	4.0	0.57	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Cyclohexane	ND	H	4.0	0.55	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Dichlorodifluoromethane	ND	H	4.0	0.33	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Ethylbenzene	ND	H	4.0	0.27	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
1,2-Dibromoethane	ND	H	4.0	0.51	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Isopropylbenzene	ND	H	4.0	0.60	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Methyl acetate	ND	H	4.0	0.74	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Methyl tert-butyl ether	ND	H	4.0	0.39	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Methylcyclohexane	ND	H	4.0	0.60	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Methylene Chloride	ND	H	4.0	1.8	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Styrene	ND	H	4.0	0.20	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
<b>Tetrachloroethene</b>	<b>8.1</b>	<b>H</b>	4.0	0.53	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Toluene	ND	H	4.0	0.30	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
trans-1,2-Dichloroethene	ND	H	4.0	0.41	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
trans-1,3-Dichloropropene	ND	H	4.0	1.7	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
<b>Trichloroethene</b>	<b>2.9</b>	<b>J H</b>	4.0	0.87	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Trichlorofluoromethane	ND	H	4.0	0.37	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Vinyl chloride	ND	H	4.0	0.48	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1
Xylenes, Total	ND	H	7.9	0.67	ug/Kg	☼	10/24/13 23:43	10/25/13 01:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		71 - 125	10/24/13 23:43	10/25/13 01:38	1
1,2-Dichloroethane-d4 (Surr)	110		64 - 126	10/24/13 23:43	10/25/13 01:38	1
4-Bromofluorobenzene (Surr)	104		72 - 126	10/24/13 23:43	10/25/13 01:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		230	45	ug/Kg	☼	10/14/13 10:44	10/16/13 00:14	1
PCB-1221	ND		230	45	ug/Kg	☼	10/14/13 10:44	10/16/13 00:14	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-28**

**Lab Sample ID: 480-47844-16**

Date Collected: 10/10/13 15:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 95.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		230	45	ug/Kg	☼	10/14/13 10:44	10/16/13 00:14	1
PCB-1242	ND		230	45	ug/Kg	☼	10/14/13 10:44	10/16/13 00:14	1
PCB-1248	ND		230	45	ug/Kg	☼	10/14/13 10:44	10/16/13 00:14	1
<b>PCB-1254</b>	<b>140</b>	<b>J</b>	230	110	ug/Kg	☼	10/14/13 10:44	10/16/13 00:14	1
PCB-1260	ND		230	110	ug/Kg	☼	10/14/13 10:44	10/16/13 00:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	143		47 - 176				10/14/13 10:44	10/16/13 00:14	1
Tetrachloro-m-xylene	121		46 - 175				10/14/13 10:44	10/16/13 00:14	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>16.1</b>	<b>B ^</b>	0.95	0.23	mg/Kg	☼	10/12/13 11:40	10/14/13 23:16	1
Silver	ND		0.48	0.19	mg/Kg	☼	10/12/13 11:40	10/14/13 23:16	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Cr (VI)</b>	<b>0.17</b>	<b>J</b>	0.41	0.10	mg/Kg	☼	10/16/13 10:42	10/18/13 12:39	1
Cyanide, Total	ND		1.0	0.50	mg/Kg	☼	10/17/13 16:35	10/18/13 14:43	1

**Client Sample ID: DUP-1**

**Lab Sample ID: 480-47844-19**

Date Collected: 10/11/13 00:00

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 90.7

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.5	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
1,1,2,2-Tetrachloroethane	ND		4.5	0.72	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
1,1,2-Trichloroethane	ND		4.5	0.58	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.5	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
1,1-Dichloroethane	ND		4.5	0.54	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
1,1-Dichloroethene	ND		4.5	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
1,2,4-Trichlorobenzene	ND		4.5	0.27	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
1,2-Dibromo-3-Chloropropane	ND		4.5	2.2	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
1,2-Dichlorobenzene	ND		4.5	0.35	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
1,2-Dichloroethane	ND		4.5	0.22	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
1,2-Dichloropropane	ND		4.5	2.2	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
1,3-Dichlorobenzene	ND		4.5	0.23	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
1,4-Dichlorobenzene	ND		4.5	0.62	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
2-Butanone (MEK)	ND		22	1.6	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
2-Hexanone	ND		22	2.2	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
4-Methyl-2-pentanone (MIBK)	ND		22	1.5	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Acetone	ND		22	3.8	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Benzene	ND		4.5	0.22	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Bromodichloromethane	ND		4.5	0.60	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Bromoform	ND		4.5	2.2	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Bromomethane	ND		4.5	0.40	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Carbon disulfide	ND		4.5	2.2	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Carbon tetrachloride	ND		4.5	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Chlorobenzene	ND		4.5	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: DUP-1**

**Lab Sample ID: 480-47844-19**

**Date Collected: 10/11/13 00:00**

**Matrix: Solid**

**Date Received: 10/12/13 02:00**

**Percent Solids: 90.7**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		4.5	0.57	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Chloroethane	ND		4.5	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Chloroform	ND		4.5	0.28	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Chloromethane	ND		4.5	0.27	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
cis-1,2-Dichloroethene	ND		4.5	0.57	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
cis-1,3-Dichloropropene	ND		4.5	0.64	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Cyclohexane	ND		4.5	0.62	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Dichlorodifluoromethane	ND		4.5	0.37	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Ethylbenzene	ND		4.5	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
1,2-Dibromoethane	ND		4.5	0.57	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Isopropylbenzene	ND		4.5	0.67	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Methyl acetate	ND		4.5	0.83	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Methyl tert-butyl ether	ND		4.5	0.44	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Methylcyclohexane	ND		4.5	0.68	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Methylene Chloride	ND		4.5	2.1	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Styrene	ND		4.5	0.22	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Tetrachloroethene	ND *		4.5	0.60	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Toluene	ND		4.5	0.34	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
trans-1,2-Dichloroethene	ND		4.5	0.46	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
trans-1,3-Dichloropropene	ND		4.5	2.0	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Trichloroethene	ND		4.5	0.98	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Trichlorofluoromethane	ND		4.5	0.42	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Vinyl chloride	ND		4.5	0.54	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1
Xylenes, Total	ND		8.9	0.75	ug/Kg	☼	10/22/13 02:35	10/24/13 07:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		71 - 125	10/22/13 02:35	10/24/13 07:38	1
1,2-Dichloroethane-d4 (Surr)	105		64 - 126	10/22/13 02:35	10/24/13 07:38	1
4-Bromofluorobenzene (Surr)	108		72 - 126	10/22/13 02:35	10/24/13 07:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		250	48	ug/Kg	☼	10/14/13 10:44	10/16/13 00:58	1
PCB-1221	ND		250	48	ug/Kg	☼	10/14/13 10:44	10/16/13 00:58	1
PCB-1232	ND		250	48	ug/Kg	☼	10/14/13 10:44	10/16/13 00:58	1
PCB-1242	ND		250	48	ug/Kg	☼	10/14/13 10:44	10/16/13 00:58	1
PCB-1248	ND		250	48	ug/Kg	☼	10/14/13 10:44	10/16/13 00:58	1
PCB-1254	ND		250	120	ug/Kg	☼	10/14/13 10:44	10/16/13 00:58	1
PCB-1260	ND		250	120	ug/Kg	☼	10/14/13 10:44	10/16/13 00:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	141		47 - 176	10/14/13 10:44	10/16/13 00:58	1
Tetrachloro-m-xylene	122		46 - 175	10/14/13 10:44	10/16/13 00:58	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	16.6	B ^	1.1	0.26	mg/Kg	☼	10/12/13 11:40	10/14/13 23:18	1
Silver	ND		0.54	0.21	mg/Kg	☼	10/12/13 11:40	10/14/13 23:18	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: DUP-1

Date Collected: 10/11/13 00:00

Date Received: 10/12/13 02:00

## Lab Sample ID: 480-47844-19

Matrix: Solid

Percent Solids: 90.7

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.11	J	0.44	0.11	mg/Kg	☼	10/16/13 10:42	10/18/13 12:41	1
Cyanide, Total	ND		1.0	0.49	mg/Kg	☼	10/17/13 16:35	10/18/13 14:44	1

## Client Sample ID: DUP-2

Date Collected: 10/11/13 00:00

Date Received: 10/12/13 02:00

## Lab Sample ID: 480-47844-20

Matrix: Solid

Percent Solids: 79.9

### Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.3	0.38	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
1,1,2,2-Tetrachloroethane	ND		5.3	0.85	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
1,1,2-Trichloroethane	ND		5.3	0.68	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.3	1.2	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
1,1-Dichloroethane	ND		5.3	0.64	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
1,1-Dichloroethene	ND		5.3	0.64	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
1,2,4-Trichlorobenzene	ND		5.3	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
1,2-Dibromo-3-Chloropropane	ND		5.3	2.6	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
1,2-Dichlorobenzene	ND		5.3	0.41	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
1,2-Dichloroethane	ND		5.3	0.26	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
1,2-Dichloropropane	ND		5.3	2.6	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
1,3-Dichlorobenzene	ND		5.3	0.27	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
1,4-Dichlorobenzene	ND		5.3	0.74	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
2-Butanone (MEK)	ND		26	1.9	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Acetone	ND		26	4.4	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Benzene	ND		5.3	0.26	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Bromodichloromethane	ND		5.3	0.70	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Bromoform	ND		5.3	2.6	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Bromomethane	ND		5.3	0.47	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Carbon disulfide	ND		5.3	2.6	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Carbon tetrachloride	ND		5.3	0.51	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Chlorobenzene	ND		5.3	0.69	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Dibromochloromethane	ND		5.3	0.67	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Chloroethane	ND		5.3	1.2	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Chloroform	ND		5.3	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Chloromethane	ND		5.3	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
cis-1,2-Dichloroethene	ND		5.3	0.67	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
cis-1,3-Dichloropropene	ND		5.3	0.76	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Cyclohexane	ND		5.3	0.74	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Dichlorodifluoromethane	ND		5.3	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Ethylbenzene	ND		5.3	0.36	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
1,2-Dibromoethane	ND		5.3	0.67	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Isopropylbenzene	ND		5.3	0.79	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Methyl acetate	ND		5.3	0.98	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Methyl tert-butyl ether	ND		5.3	0.52	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Methylcyclohexane	ND		5.3	0.80	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Methylene Chloride	ND		5.3	2.4	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Styrene	ND		5.3	0.26	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Tetrachloroethene	ND	*	5.3	0.70	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1

TestAmerica Buffalo



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: DUP-2

Date Collected: 10/11/13 00:00

Date Received: 10/12/13 02:00

## Lab Sample ID: 480-47844-20

Matrix: Solid  
Percent Solids: 79.9

### Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		5.3	0.40	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
trans-1,2-Dichloroethene	ND		5.3	0.54	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
trans-1,3-Dichloropropene	ND		5.3	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Trichloroethene	ND		5.3	1.2	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Trichlorofluoromethane	ND		5.3	0.50	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Vinyl chloride	ND		5.3	0.64	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1
Xylenes, Total	ND		11	0.88	ug/Kg	☼	10/22/13 02:35	10/24/13 08:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	109		71 - 125	10/22/13 02:35	10/24/13 08:04	1
1,2-Dichloroethane-d4 (Surr)	108		64 - 126	10/22/13 02:35	10/24/13 08:04	1
4-Bromofluorobenzene (Surr)	109		72 - 126	10/22/13 02:35	10/24/13 08:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		270	53	ug/Kg	☼	10/14/13 10:44	10/16/13 01:13	1
PCB-1221	ND		270	53	ug/Kg	☼	10/14/13 10:44	10/16/13 01:13	1
PCB-1232	ND		270	53	ug/Kg	☼	10/14/13 10:44	10/16/13 01:13	1
PCB-1242	ND		270	53	ug/Kg	☼	10/14/13 10:44	10/16/13 01:13	1
PCB-1248	ND		270	53	ug/Kg	☼	10/14/13 10:44	10/16/13 01:13	1
PCB-1254	ND		270	130	ug/Kg	☼	10/14/13 10:44	10/16/13 01:13	1
PCB-1260	ND		270	130	ug/Kg	☼	10/14/13 10:44	10/16/13 01:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	114		47 - 176	10/14/13 10:44	10/16/13 01:13	1
Tetrachloro-m-xylene	115		46 - 175	10/14/13 10:44	10/16/13 01:13	1

### Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	18.4	B ^	1.3	0.31	mg/Kg	☼	10/12/13 11:40	10/14/13 23:21	1
Silver	ND		0.65	0.26	mg/Kg	☼	10/12/13 11:40	10/14/13 23:21	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50	0.13	mg/Kg	☼	10/16/13 10:42	10/18/13 12:43	1
Cyanide, Total	ND		1.2	0.56	mg/Kg	☼	10/17/13 16:35	10/18/13 14:44	1

## Client Sample ID: LMCU-SS-9

Date Collected: 10/10/13 11:55

Date Received: 10/12/13 02:00

## Lab Sample ID: 480-47844-21

Matrix: Solid  
Percent Solids: 72.5

### Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		6.3	0.46	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
1,1,2,2-Tetrachloroethane	ND		6.3	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
1,1,2-Trichloroethane	ND		6.3	0.82	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.3	1.4	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
1,1-Dichloroethane	ND		6.3	0.77	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
1,1-Dichloroethene	ND		6.3	0.77	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
1,2,4-Trichlorobenzene	ND		6.3	0.38	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
1,2-Dibromo-3-Chloropropane	ND		6.3	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-9**

**Lab Sample ID: 480-47844-21**

Date Collected: 10/10/13 11:55

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 72.5

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		6.3	0.49	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
1,2-Dichloroethane	ND		6.3	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
1,2-Dichloropropane	ND		6.3	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
1,3-Dichlorobenzene	ND		6.3	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
1,4-Dichlorobenzene	ND		6.3	0.88	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
2-Butanone (MEK)	ND		31	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
2-Hexanone	ND		31	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
4-Methyl-2-pentanone (MIBK)	ND		31	2.1	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Acetone	ND		31	5.3	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Benzene	ND		6.3	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Bromodichloromethane	ND		6.3	0.84	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Bromoform	ND		6.3	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Bromomethane	ND		6.3	0.57	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Carbon disulfide	ND		6.3	3.1	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Carbon tetrachloride	ND		6.3	0.61	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Chlorobenzene	ND		6.3	0.83	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Dibromochloromethane	ND		6.3	0.81	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Chloroethane	ND		6.3	1.4	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Chloroform	ND		6.3	0.39	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Chloromethane	ND		6.3	0.38	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
cis-1,2-Dichloroethene	ND		6.3	0.81	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
cis-1,3-Dichloropropene	ND		6.3	0.91	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Cyclohexane	ND		6.3	0.88	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Dichlorodifluoromethane	ND		6.3	0.52	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Ethylbenzene	ND		6.3	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
1,2-Dibromoethane	ND		6.3	0.81	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Isopropylbenzene	ND		6.3	0.95	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Methyl acetate	ND		6.3	1.2	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Methyl tert-butyl ether	ND		6.3	0.62	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Methylcyclohexane	ND		6.3	0.96	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Methylene Chloride	ND		6.3	2.9	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Styrene	ND		6.3	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Tetrachloroethene	ND *		6.3	0.84	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Toluene	ND		6.3	0.48	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
trans-1,2-Dichloroethene	ND		6.3	0.65	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
trans-1,3-Dichloropropene	ND		6.3	2.8	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Trichloroethene	ND		6.3	1.4	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Trichlorofluoromethane	ND		6.3	0.60	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Vinyl chloride	ND		6.3	0.77	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1
Xylenes, Total	ND		13	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 08:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		71 - 125	10/22/13 02:35	10/24/13 08:29	1
1,2-Dichloroethane-d4 (Surr)	109		64 - 126	10/22/13 02:35	10/24/13 08:29	1
4-Bromofluorobenzene (Surr)	107		72 - 126	10/22/13 02:35	10/24/13 08:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		310	61	ug/Kg	☼	10/14/13 10:44	10/16/13 01:28	1
PCB-1221	ND		310	61	ug/Kg	☼	10/14/13 10:44	10/16/13 01:28	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-9**

**Lab Sample ID: 480-47844-21**

Date Collected: 10/10/13 11:55

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 72.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		310	61	ug/Kg	☼	10/14/13 10:44	10/16/13 01:28	1
PCB-1242	ND		310	61	ug/Kg	☼	10/14/13 10:44	10/16/13 01:28	1
PCB-1248	ND		310	61	ug/Kg	☼	10/14/13 10:44	10/16/13 01:28	1
PCB-1254	ND		310	150	ug/Kg	☼	10/14/13 10:44	10/16/13 01:28	1
PCB-1260	ND		310	150	ug/Kg	☼	10/14/13 10:44	10/16/13 01:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	110		47 - 176				10/14/13 10:44	10/16/13 01:28	1
Tetrachloro-m-xylene	118		46 - 175				10/14/13 10:44	10/16/13 01:28	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	27.3	B ^	1.5	0.35	mg/Kg	☼	10/12/13 11:40	10/14/13 23:23	1
Silver	ND		0.73	0.29	mg/Kg	☼	10/12/13 11:40	10/14/13 23:23	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.50	J	0.55	0.14	mg/Kg	☼	10/16/13 10:42	10/18/13 12:44	1
Cyanide, Total	ND		1.4	0.66	mg/Kg	☼	10/17/13 16:35	10/18/13 14:47	1

**Client Sample ID: LMCU-SS-8**

**Lab Sample ID: 480-47844-22**

Date Collected: 10/10/13 12:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 63.2

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		7.5	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
1,1,2,2-Tetrachloroethane	ND		7.5	1.2	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
1,1,2-Trichloroethane	ND		7.5	0.98	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		7.5	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
1,1-Dichloroethane	ND		7.5	0.92	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
1,1-Dichloroethene	ND		7.5	0.92	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
1,2,4-Trichlorobenzene	ND		7.5	0.46	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
1,2-Dibromo-3-Chloropropane	ND		7.5	3.8	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
1,2-Dichlorobenzene	ND		7.5	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
1,2-Dichloroethane	ND		7.5	0.38	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
1,2-Dichloropropane	ND		7.5	3.8	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
1,3-Dichlorobenzene	ND		7.5	0.39	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
1,4-Dichlorobenzene	ND		7.5	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
2-Butanone (MEK)	ND		38	2.8	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
2-Hexanone	ND		38	3.8	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
4-Methyl-2-pentanone (MIBK)	ND		38	2.5	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Acetone	ND		38	6.3	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Benzene	ND		7.5	0.37	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Bromodichloromethane	ND		7.5	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Bromoform	ND		7.5	3.8	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Bromomethane	ND		7.5	0.68	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Carbon disulfide	ND		7.5	3.8	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Carbon tetrachloride	ND		7.5	0.73	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Chlorobenzene	ND		7.5	0.99	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-8**

**Lab Sample ID: 480-47844-22**

Date Collected: 10/10/13 12:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 63.2

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		7.5	0.96	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Chloroethane	ND		7.5	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Chloroform	ND		7.5	0.47	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Chloromethane	ND		7.5	0.45	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
cis-1,2-Dichloroethene	ND		7.5	0.96	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
cis-1,3-Dichloropropene	ND		7.5	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Cyclohexane	ND		7.5	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Dichlorodifluoromethane	ND		7.5	0.62	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Ethylbenzene	ND		7.5	0.52	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
1,2-Dibromoethane	ND		7.5	0.97	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Isopropylbenzene	ND		7.5	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Methyl acetate	ND		7.5	1.4	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Methyl tert-butyl ether	ND		7.5	0.74	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Methylcyclohexane	ND		7.5	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Methylene Chloride	ND		7.5	3.5	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Styrene	ND		7.5	0.38	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Tetrachloroethene	ND *		7.5	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Toluene	ND		7.5	0.57	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
trans-1,2-Dichloroethene	ND		7.5	0.78	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
trans-1,3-Dichloropropene	ND		7.5	3.3	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Trichloroethene	ND		7.5	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Trichlorofluoromethane	ND		7.5	0.71	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Vinyl chloride	ND		7.5	0.92	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1
Xylenes, Total	ND		15	1.3	ug/Kg	☼	10/22/13 02:35	10/24/13 08:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	110		71 - 125	10/22/13 02:35	10/24/13 08:55	1
1,2-Dichloroethane-d4 (Surr)	111		64 - 126	10/22/13 02:35	10/24/13 08:55	1
4-Bromofluorobenzene (Surr)	108		72 - 126	10/22/13 02:35	10/24/13 08:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		350	69	ug/Kg	☼	10/14/13 10:44	10/16/13 01:43	1
PCB-1221	ND		350	69	ug/Kg	☼	10/14/13 10:44	10/16/13 01:43	1
PCB-1232	ND		350	69	ug/Kg	☼	10/14/13 10:44	10/16/13 01:43	1
PCB-1242	ND		350	69	ug/Kg	☼	10/14/13 10:44	10/16/13 01:43	1
PCB-1248	ND		350	69	ug/Kg	☼	10/14/13 10:44	10/16/13 01:43	1
PCB-1254	ND		350	170	ug/Kg	☼	10/14/13 10:44	10/16/13 01:43	1
PCB-1260	ND		350	170	ug/Kg	☼	10/14/13 10:44	10/16/13 01:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		47 - 176	10/14/13 10:44	10/16/13 01:43	1
Tetrachloro-m-xylene	111		46 - 175	10/14/13 10:44	10/16/13 01:43	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	29.3	B ^	1.7	0.42	mg/Kg	☼	10/12/13 11:40	10/14/13 23:26	1
Silver	ND		0.87	0.35	mg/Kg	☼	10/12/13 11:40	10/14/13 23:26	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: LMCU-SS-8

## Lab Sample ID: 480-47844-22

Date Collected: 10/10/13 12:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 63.2

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Cr (VI)</b>	<b>0.47</b>	<b>J</b>	0.64	0.16	mg/Kg	☼	10/16/13 10:42	10/18/13 12:46	1
Cyanide, Total	ND		1.5	0.73	mg/Kg	☼	10/18/13 10:15	10/18/13 15:36	1

## Client Sample ID: LMCU-SS-7

## Lab Sample ID: 480-47844-23

Date Collected: 10/10/13 12:55

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 82.7

### Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.8	0.35	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
1,1,2,2-Tetrachloroethane	ND		4.8	0.78	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
1,1,2-Trichloroethane	ND		4.8	0.63	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.8	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
1,1-Dichloroethane	ND		4.8	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
1,1-Dichloroethene	ND		4.8	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
1,2,4-Trichlorobenzene	ND		4.8	0.29	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
1,2-Dibromo-3-Chloropropane	ND		4.8	2.4	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
1,2-Dichlorobenzene	ND		4.8	0.38	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
1,2-Dichloroethane	ND		4.8	0.24	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
1,2-Dichloropropane	ND		4.8	2.4	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
1,3-Dichlorobenzene	ND		4.8	0.25	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
1,4-Dichlorobenzene	ND		4.8	0.68	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
<b>2-Butanone (MEK)</b>	<b>350</b>		24	1.8	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
2-Hexanone	ND		24	2.4	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
4-Methyl-2-pentanone (MIBK)	ND		24	1.6	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
<b>Acetone</b>	<b>180</b>		24	4.1	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Benzene	ND		4.8	0.24	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Bromodichloromethane	ND		4.8	0.65	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Bromoform	ND		4.8	2.4	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Bromomethane	ND		4.8	0.44	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Carbon disulfide	ND		4.8	2.4	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Carbon tetrachloride	ND		4.8	0.47	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Chlorobenzene	ND		4.8	0.64	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Dibromochloromethane	ND		4.8	0.62	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Chloroethane	ND		4.8	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Chloroform	ND		4.8	0.30	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Chloromethane	ND		4.8	0.29	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
cis-1,2-Dichloroethene	ND		4.8	0.62	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
cis-1,3-Dichloropropene	ND		4.8	0.70	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Cyclohexane	ND		4.8	0.68	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Dichlorodifluoromethane	ND		4.8	0.40	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Ethylbenzene	ND		4.8	0.33	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
1,2-Dibromoethane	ND		4.8	0.62	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Isopropylbenzene	ND		4.8	0.73	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Methyl acetate	ND		4.8	0.90	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Methyl tert-butyl ether	ND		4.8	0.48	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Methylcyclohexane	ND		4.8	0.74	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Methylene Chloride	ND		4.8	2.2	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Styrene	ND		4.8	0.24	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Tetrachloroethene	ND	*	4.8	0.65	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-7**

**Lab Sample ID: 480-47844-23**

Date Collected: 10/10/13 12:55

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 82.7

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		4.8	0.37	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
trans-1,2-Dichloroethene	ND		4.8	0.50	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
trans-1,3-Dichloropropene	ND		4.8	2.1	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Trichloroethene	ND		4.8	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Trichlorofluoromethane	ND		4.8	0.46	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Vinyl chloride	ND		4.8	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1
Xylenes, Total	ND		9.7	0.81	ug/Kg	☼	10/22/13 02:35	10/24/13 09:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		71 - 125	10/22/13 02:35	10/24/13 09:20	1
1,2-Dichloroethane-d4 (Surr)	111		64 - 126	10/22/13 02:35	10/24/13 09:20	1
4-Bromofluorobenzene (Surr)	109		72 - 126	10/22/13 02:35	10/24/13 09:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		220	43	ug/Kg	☼	10/14/13 10:44	10/16/13 01:57	1
PCB-1221	ND		220	43	ug/Kg	☼	10/14/13 10:44	10/16/13 01:57	1
PCB-1232	ND		220	43	ug/Kg	☼	10/14/13 10:44	10/16/13 01:57	1
PCB-1242	ND		220	43	ug/Kg	☼	10/14/13 10:44	10/16/13 01:57	1
PCB-1248	ND		220	43	ug/Kg	☼	10/14/13 10:44	10/16/13 01:57	1
<b>PCB-1254</b>	<b>2400</b>		220	100	ug/Kg	☼	10/14/13 10:44	10/16/13 01:57	1
PCB-1260	ND		220	100	ug/Kg	☼	10/14/13 10:44	10/16/13 01:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	124		47 - 176	10/14/13 10:44	10/16/13 01:57	1
Tetrachloro-m-xylene	118		46 - 175	10/14/13 10:44	10/16/13 01:57	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Lead</b>	<b>8.7</b>	<b>B ^</b>	1.2	0.28	mg/Kg	☼	10/12/13 11:40	10/14/13 23:28	1
Silver	ND		0.58	0.23	mg/Kg	☼	10/12/13 11:40	10/14/13 23:28	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Cr (VI)</b>	<b>0.12</b>	<b>J</b>	0.49	0.12	mg/Kg	☼	10/16/13 10:42	10/18/13 12:47	1
Cyanide, Total	ND		1.2	0.56	mg/Kg	☼	10/22/13 19:49	10/23/13 11:55	1

**Client Sample ID: LMCU-SS-4**

**Lab Sample ID: 480-47844-24**

Date Collected: 10/10/13 13:35

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 70.4

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.7	0.42	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
1,1,2,2-Tetrachloroethane	ND		5.7	0.93	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
1,1,2-Trichloroethane	ND		5.7	0.74	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.7	1.3	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
1,1-Dichloroethane	ND		5.7	0.70	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
1,1-Dichloroethene	ND		5.7	0.70	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
1,2,4-Trichlorobenzene	ND		5.7	0.35	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
1,2-Dibromo-3-Chloropropane	ND		5.7	2.9	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-4**

**Lab Sample ID: 480-47844-24**

Date Collected: 10/10/13 13:35

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 70.4

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		5.7	0.45	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
1,2-Dichloroethane	ND		5.7	0.29	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
1,2-Dichloropropane	ND		5.7	2.9	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
1,3-Dichlorobenzene	ND		5.7	0.29	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
1,4-Dichlorobenzene	ND		5.7	0.80	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
2-Butanone (MEK)	ND		29	2.1	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
2-Hexanone	ND		29	2.9	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
4-Methyl-2-pentanone (MIBK)	ND		29	1.9	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Acetone	ND		29	4.8	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Benzene	ND		5.7	0.28	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Bromodichloromethane	ND		5.7	0.77	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Bromoform	ND		5.7	2.9	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Bromomethane	ND		5.7	0.52	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Carbon disulfide	ND		5.7	2.9	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Carbon tetrachloride	ND		5.7	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Chlorobenzene	ND		5.7	0.76	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Dibromochloromethane	ND		5.7	0.73	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Chloroethane	ND		5.7	1.3	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Chloroform	ND		5.7	0.35	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Chloromethane	ND		5.7	0.35	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
cis-1,2-Dichloroethene	ND		5.7	0.73	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
cis-1,3-Dichloropropene	ND		5.7	0.82	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Cyclohexane	ND		5.7	0.80	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Dichlorodifluoromethane	ND		5.7	0.47	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Ethylbenzene	ND		5.7	0.40	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
1,2-Dibromoethane	ND		5.7	0.74	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Isopropylbenzene	ND		5.7	0.86	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Methyl acetate	ND		5.7	1.1	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Methyl tert-butyl ether	ND		5.7	0.56	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Methylcyclohexane	ND		5.7	0.87	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Methylene Chloride	ND		5.7	2.6	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Styrene	ND		5.7	0.29	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Tetrachloroethene	ND *		5.7	0.77	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Toluene	ND		5.7	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
trans-1,2-Dichloroethene	ND		5.7	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
trans-1,3-Dichloropropene	ND		5.7	2.5	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Trichloroethene	ND		5.7	1.3	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Trichlorofluoromethane	ND		5.7	0.54	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Vinyl chloride	ND		5.7	0.70	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1
Xylenes, Total	ND		11	0.96	ug/Kg	☼	10/22/13 02:35	10/24/13 09:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	107		71 - 125	10/22/13 02:35	10/24/13 09:46	1
1,2-Dichloroethane-d4 (Surr)	110		64 - 126	10/22/13 02:35	10/24/13 09:46	1
4-Bromofluorobenzene (Surr)	108		72 - 126	10/22/13 02:35	10/24/13 09:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		340	66	ug/Kg	☼	10/14/13 10:44	10/16/13 02:12	1
PCB-1221	ND		340	66	ug/Kg	☼	10/14/13 10:44	10/16/13 02:12	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-4**

**Lab Sample ID: 480-47844-24**

Date Collected: 10/10/13 13:35

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 70.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		340	66	ug/Kg	☼	10/14/13 10:44	10/16/13 02:12	1
PCB-1242	ND		340	66	ug/Kg	☼	10/14/13 10:44	10/16/13 02:12	1
PCB-1248	ND		340	66	ug/Kg	☼	10/14/13 10:44	10/16/13 02:12	1
PCB-1254	ND		340	160	ug/Kg	☼	10/14/13 10:44	10/16/13 02:12	1
PCB-1260	ND		340	160	ug/Kg	☼	10/14/13 10:44	10/16/13 02:12	1
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>DCB Decachlorobiphenyl</i>	125		47 - 176				10/14/13 10:44	10/16/13 02:12	1
<i>Tetrachloro-m-xylene</i>	120		46 - 175				10/14/13 10:44	10/16/13 02:12	1

## Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	35.7	B	1.4	0.34	mg/Kg	☼	10/12/13 11:40	10/14/13 23:38	1
Silver	ND		0.71	0.28	mg/Kg	☼	10/12/13 11:40	10/14/13 23:38	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	1.4		0.58	0.14	mg/Kg	☼	10/16/13 10:42	10/18/13 12:52	1
Cyanide, Total	ND		1.4	0.67	mg/Kg	☼	10/18/13 10:15	10/18/13 15:38	1

**Client Sample ID: LMCU-SS-2**

**Lab Sample ID: 480-47844-25**

Date Collected: 10/10/13 15:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 79.3

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.5	0.33	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
1,1,2,2-Tetrachloroethane	ND		4.5	0.73	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
1,1,2-Trichloroethane	ND		4.5	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.5	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
1,1-Dichloroethane	ND		4.5	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
1,1-Dichloroethene	ND		4.5	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
1,2,4-Trichlorobenzene	ND		4.5	0.27	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
1,2-Dibromo-3-Chloropropane	ND		4.5	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
1,2-Dichlorobenzene	ND		4.5	0.35	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
1,2-Dichloroethane	ND		4.5	0.23	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
1,2-Dichloropropane	ND		4.5	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
1,3-Dichlorobenzene	ND		4.5	0.23	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
1,4-Dichlorobenzene	ND		4.5	0.63	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
2-Butanone (MEK)	ND		23	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
2-Hexanone	ND		23	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
4-Methyl-2-pentanone (MIBK)	ND		23	1.5	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Acetone	ND		23	3.8	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Benzene	ND		4.5	0.22	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Bromodichloromethane	ND		4.5	0.61	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Bromoform	ND		4.5	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Bromomethane	ND		4.5	0.41	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Carbon disulfide	ND		4.5	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Carbon tetrachloride	ND		4.5	0.44	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Chlorobenzene	ND		4.5	0.60	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1

TestAmerica Buffalo



# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-2**

**Lab Sample ID: 480-47844-25**

Date Collected: 10/10/13 15:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 79.3

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		4.5	0.58	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Chloroethane	ND		4.5	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Chloroform	ND		4.5	0.28	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Chloromethane	ND		4.5	0.27	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
cis-1,2-Dichloroethene	ND		4.5	0.58	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
cis-1,3-Dichloropropene	ND		4.5	0.65	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Cyclohexane	ND		4.5	0.63	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Dichlorodifluoromethane	ND		4.5	0.37	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Ethylbenzene	ND		4.5	0.31	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
1,2-Dibromoethane	ND		4.5	0.58	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Isopropylbenzene	ND		4.5	0.68	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Methyl acetate	ND		4.5	0.84	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Methyl tert-butyl ether	ND		4.5	0.44	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Methylcyclohexane	ND		4.5	0.69	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Methylene Chloride	ND		4.5	2.1	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Styrene	ND		4.5	0.23	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Tetrachloroethene	ND		4.5	0.61	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Toluene	ND		4.5	0.34	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
trans-1,2-Dichloroethene	ND		4.5	0.47	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
trans-1,3-Dichloropropene	ND		4.5	2.0	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Trichloroethene	ND		4.5	0.99	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Trichlorofluoromethane	ND		4.5	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Vinyl chloride	ND		4.5	0.55	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1
Xylenes, Total	ND		9.0	0.76	ug/Kg	☼	10/22/13 02:35	10/24/13 12:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		71 - 125	10/22/13 02:35	10/24/13 12:45	1
1,2-Dichloroethane-d4 (Surr)	117		64 - 126	10/22/13 02:35	10/24/13 12:45	1
4-Bromofluorobenzene (Surr)	106		72 - 126	10/22/13 02:35	10/24/13 12:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		280	54	ug/Kg	☼	10/14/13 10:44	10/16/13 02:27	1
PCB-1221	ND		280	54	ug/Kg	☼	10/14/13 10:44	10/16/13 02:27	1
PCB-1232	ND		280	54	ug/Kg	☼	10/14/13 10:44	10/16/13 02:27	1
PCB-1242	ND		280	54	ug/Kg	☼	10/14/13 10:44	10/16/13 02:27	1
PCB-1248	ND		280	54	ug/Kg	☼	10/14/13 10:44	10/16/13 02:27	1
PCB-1254	ND		280	130	ug/Kg	☼	10/14/13 10:44	10/16/13 02:27	1
PCB-1260	ND		280	130	ug/Kg	☼	10/14/13 10:44	10/16/13 02:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	132		47 - 176	10/14/13 10:44	10/16/13 02:27	1
Tetrachloro-m-xylene	121		46 - 175	10/14/13 10:44	10/16/13 02:27	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	21.0	B	1.4	0.34	mg/Kg	☼	10/12/13 11:40	10/14/13 23:40	1
Silver	ND		0.71	0.28	mg/Kg	☼	10/12/13 11:40	10/14/13 23:40	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: LMCU-SS-2

Lab Sample ID: 480-47844-25

Date Collected: 10/10/13 15:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 79.3

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.79		0.51	0.13	mg/Kg	☼	10/16/13 10:42	10/18/13 12:54	1
Cyanide, Total	ND		1.2	0.56	mg/Kg	☼	10/17/13 16:35	10/18/13 14:48	1

## Client Sample ID: LMCU-SS-1

Lab Sample ID: 480-47844-26

Date Collected: 10/10/13 16:30

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 83.8

### Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.6	0.33	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
1,1,2,2-Tetrachloroethane	ND		4.6	0.74	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
1,1,2-Trichloroethane	ND		4.6	0.60	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.6	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
1,1-Dichloroethane	ND		4.6	0.56	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
1,1-Dichloroethene	ND		4.6	0.56	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
1,2,4-Trichlorobenzene	ND		4.6	0.28	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
1,2-Dibromo-3-Chloropropane	ND		4.6	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
1,2-Dichlorobenzene	ND		4.6	0.36	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
1,2-Dichloroethane	ND		4.6	0.23	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
1,2-Dichloropropane	ND		4.6	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
1,3-Dichlorobenzene	ND		4.6	0.24	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
1,4-Dichlorobenzene	ND		4.6	0.64	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
2-Butanone (MEK)	ND		23	1.7	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
2-Hexanone	ND		23	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
4-Methyl-2-pentanone (MIBK)	ND		23	1.5	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Acetone	ND		23	3.9	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Benzene	ND		4.6	0.23	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Bromodichloromethane	ND		4.6	0.62	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Bromoform	ND		4.6	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Bromomethane	ND		4.6	0.41	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Carbon disulfide	ND		4.6	2.3	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Carbon tetrachloride	ND		4.6	0.44	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Chlorobenzene	ND		4.6	0.61	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Dibromochloromethane	ND		4.6	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Chloroethane	ND		4.6	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Chloroform	ND		4.6	0.28	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Chloromethane	ND		4.6	0.28	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
cis-1,2-Dichloroethene	ND		4.6	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
cis-1,3-Dichloropropene	ND		4.6	0.66	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Cyclohexane	ND		4.6	0.64	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Dichlorodifluoromethane	ND		4.6	0.38	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Ethylbenzene	ND		4.6	0.32	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
1,2-Dibromoethane	ND		4.6	0.59	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Isopropylbenzene	ND		4.6	0.69	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Methyl acetate	ND		4.6	0.85	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Methyl tert-butyl ether	ND		4.6	0.45	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Methylcyclohexane	ND		4.6	0.70	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Methylene Chloride	ND		4.6	2.1	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Styrene	ND		4.6	0.23	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Tetrachloroethene	ND		4.6	0.62	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-1**

**Lab Sample ID: 480-47844-26**

Date Collected: 10/10/13 16:30

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 83.8

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		4.6	0.35	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
trans-1,2-Dichloroethene	ND		4.6	0.47	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
trans-1,3-Dichloropropene	ND		4.6	2.0	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Trichloroethene	ND		4.6	1.0	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Trichlorofluoromethane	ND		4.6	0.43	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Vinyl chloride	ND		4.6	0.56	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1
Xylenes, Total	ND		9.2	0.77	ug/Kg	☼	10/22/13 02:35	10/24/13 13:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		71 - 125	10/22/13 02:35	10/24/13 13:11	1
1,2-Dichloroethane-d4 (Surr)	108		64 - 126	10/22/13 02:35	10/24/13 13:11	1
4-Bromofluorobenzene (Surr)	106		72 - 126	10/22/13 02:35	10/24/13 13:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		250	48	ug/Kg	☼	10/14/13 10:52	10/15/13 15:06	1
PCB-1221	ND		250	48	ug/Kg	☼	10/14/13 10:52	10/15/13 15:06	1
PCB-1232	ND		250	48	ug/Kg	☼	10/14/13 10:52	10/15/13 15:06	1
PCB-1242	ND		250	48	ug/Kg	☼	10/14/13 10:52	10/15/13 15:06	1
PCB-1248	ND		250	48	ug/Kg	☼	10/14/13 10:52	10/15/13 15:06	1
PCB-1254	ND		250	120	ug/Kg	☼	10/14/13 10:52	10/15/13 15:06	1
PCB-1260	ND		250	120	ug/Kg	☼	10/14/13 10:52	10/15/13 15:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	140		47 - 176	10/14/13 10:52	10/15/13 15:06	1
Tetrachloro-m-xylene	121		46 - 175	10/14/13 10:52	10/15/13 15:06	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	13.4		1.2	0.28	mg/Kg	☼	10/14/13 14:15	10/17/13 15:23	1
Silver	ND		0.59	0.23	mg/Kg	☼	10/14/13 14:15	10/17/13 15:23	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.0		0.47	0.12	mg/Kg	☼	10/16/13 10:42	10/18/13 12:55	1
Cyanide, Total	ND		1.2	0.56	mg/Kg	☼	10/18/13 10:15	10/18/13 15:39	1

**Client Sample ID: LMCU-SS-3**

**Lab Sample ID: 480-47844-27**

Date Collected: 10/10/13 17:25

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 81.4

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	H	4.6	0.33	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
1,1,1,2,2-Tetrachloroethane	ND	H	4.6	0.74	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
1,1,2-Trichloroethane	ND	H	4.6	0.59	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	H	4.6	1.0	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
1,1-Dichloroethane	ND	H	4.6	0.56	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
1,1-Dichloroethene	ND	H	4.6	0.56	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
1,2,4-Trichlorobenzene	ND	H	4.6	0.28	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
1,2-Dibromo-3-Chloropropane	ND	H	4.6	2.3	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-3**

**Lab Sample ID: 480-47844-27**

Date Collected: 10/10/13 17:25

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 81.4

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND	H	4.6	0.36	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
1,2-Dichloroethane	ND	H	4.6	0.23	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
1,2-Dichloropropane	ND	H	4.6	2.3	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
1,3-Dichlorobenzene	ND	H	4.6	0.23	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
1,4-Dichlorobenzene	ND	H	4.6	0.64	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
2-Butanone (MEK)	ND	H	23	1.7	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
2-Hexanone	ND	H	23	2.3	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
4-Methyl-2-pentanone (MIBK)	ND	H	23	1.5	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Acetone	ND	H	23	3.8	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Benzene	ND	H	4.6	0.22	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Bromodichloromethane	ND	H	4.6	0.61	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Bromoform	ND	H	4.6	2.3	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Bromomethane	ND	H	4.6	0.41	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Carbon disulfide	ND	H	4.6	2.3	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Carbon tetrachloride	ND	H	4.6	0.44	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Chlorobenzene	ND	H	4.6	0.60	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Dibromochloromethane	ND	H	4.6	0.59	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Chloroethane	ND	H	4.6	1.0	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Chloroform	ND	H	4.6	0.28	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Chloromethane	ND	H	4.6	0.28	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
cis-1,2-Dichloroethene	ND	H	4.6	0.59	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
cis-1,3-Dichloropropene	ND	H	4.6	0.66	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Cyclohexane	ND	H	4.6	0.64	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Dichlorodifluoromethane	ND	H	4.6	0.38	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Ethylbenzene	ND	H	4.6	0.32	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
1,2-Dibromoethane	ND	H	4.6	0.59	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Isopropylbenzene	ND	H	4.6	0.69	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Methyl acetate	ND	H	4.6	0.85	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Methyl tert-butyl ether	ND	H	4.6	0.45	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Methylcyclohexane	ND	H	4.6	0.69	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Methylene Chloride	ND	H	4.6	2.1	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Styrene	ND	H	4.6	0.23	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Tetrachloroethene	ND	H	4.6	0.61	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Toluene	ND	H	4.6	0.35	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
trans-1,2-Dichloroethene	ND	H	4.6	0.47	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
trans-1,3-Dichloropropene	ND	H	4.6	2.0	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Trichloroethene	ND	H	4.6	1.0	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Trichlorofluoromethane	ND	H	4.6	0.43	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Vinyl chloride	ND	H	4.6	0.56	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1
Xylenes, Total	ND	H	9.1	0.77	ug/Kg	☼	10/24/13 23:43	10/25/13 02:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		71 - 125	10/24/13 23:43	10/25/13 02:03	1
1,2-Dichloroethane-d4 (Surr)	115		64 - 126	10/24/13 23:43	10/25/13 02:03	1
4-Bromofluorobenzene (Surr)	105		72 - 126	10/24/13 23:43	10/25/13 02:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		240	47	ug/Kg	☼	10/14/13 10:52	10/15/13 15:21	1
PCB-1221	ND		240	47	ug/Kg	☼	10/14/13 10:52	10/15/13 15:21	1

TestAmerica Buffalo

# Client Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-3**

**Lab Sample ID: 480-47844-27**

**Date Collected: 10/10/13 17:25**

**Matrix: Solid**

**Date Received: 10/12/13 02:00**

**Percent Solids: 81.4**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		240	47	ug/Kg	☼	10/14/13 10:52	10/15/13 15:21	1
PCB-1242	ND		240	47	ug/Kg	☼	10/14/13 10:52	10/15/13 15:21	1
PCB-1248	ND		240	47	ug/Kg	☼	10/14/13 10:52	10/15/13 15:21	1
PCB-1254	ND		240	110	ug/Kg	☼	10/14/13 10:52	10/15/13 15:21	1
PCB-1260	ND		240	110	ug/Kg	☼	10/14/13 10:52	10/15/13 15:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	122		47 - 176	10/14/13 10:52	10/15/13 15:21	1
Tetrachloro-m-xylene	115		46 - 175	10/14/13 10:52	10/15/13 15:21	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	24.1		1.3	0.32	mg/Kg	☼	10/14/13 14:15	10/17/13 15:26	1
Silver	ND		0.66	0.26	mg/Kg	☼	10/14/13 14:15	10/17/13 15:26	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	1.4		0.49	0.12	mg/Kg	☼	10/16/13 10:42	10/18/13 12:57	1
Cyanide, Total	ND		1.1	0.52	mg/Kg	☼	10/18/13 10:15	10/18/13 15:40	1

# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (71-125)	12DCE (64-126)	BFB (72-126)
480-47844-3	LMCU-SS-6	103	100	110
480-47844-4	LMCU-SS-5	104	102	110
480-47844-5	LMCU-SS-12	103	101	108
480-47844-5 MS	LMCU-SS-12	103	90	108
480-47844-5 MSD	LMCU-SS-12	103	93	109
480-47844-6	LMCU-SS-19	109	99	109
480-47844-7	LMCU-SS-16	105	108	113
480-47844-8	LMCU-SS-15	107	104	111
480-47844-8 MS	LMCU-SS-15	108	92	109
480-47844-8 MSD	LMCU-SS-15	107	94	111
480-47844-9	LMCU-SS-10	106	101	110
480-47844-10	LMCU-SS-17	105	106	111
480-47844-11	LMCU-SS-13	106	105	109
480-47844-13	LMCU-SS-18	105	101	109
480-47844-14	LMCU-SS-11	106	110	111
480-47844-15	LMCU-SS-14	106	105	108
480-47844-16	LMCU-SS-28	105	110	104
480-47844-19	DUP-1	105	105	108
480-47844-20	DUP-2	109	108	109
480-47844-21	LMCU-SS-9	106	109	107
480-47844-22	LMCU-SS-8	110	111	108
480-47844-23	LMCU-SS-7	104	111	109
480-47844-24	LMCU-SS-4	107	110	108
480-47844-25	LMCU-SS-2	103	117	106
480-47844-26	LMCU-SS-1	105	108	106
480-47844-27	LMCU-SS-3	103	115	105
LCS 480-146925/4	Lab Control Sample	100	108	103
LCS 480-147088/4	Lab Control Sample	106	101	116
LCS 480-147179/4	Lab Control Sample	104	104	110
LCS 480-147396/4	Lab Control Sample	103	107	110
MB 480-146925/5	Method Blank	100	109	100
MB 480-147088/6	Method Blank	106	95	112
MB 480-147179/5	Method Blank	104	103	107
MB 480-147396/6	Method Blank	106	114	106

### Surrogate Legend

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

## Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (71-126)	12DCE (66-137)	BFB (73-120)
480-47844-1	FB	95	111	100
480-47844-2	TB	96	111	98
LCS 480-146452/4	Lab Control Sample	96	100	104

TestAmerica Buffalo

# Surrogate Summary

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TOL (71-126)	12DCE (66-137)	BFB (73-120)
MB 480-146452/6	Method Blank	99	105	104

### Surrogate Legend

TOL = Toluene-d8 (Surr)  
 12DCE = 1,2-Dichloroethane-d4 (Surr)  
 BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (47-176)	TCX1 (46-175)
480-47844-3	LMCU-SS-6	140	120
480-47844-4	LMCU-SS-5	122	113
480-47844-5	LMCU-SS-12	127	116
480-47844-5 MS	LMCU-SS-12	156	137
480-47844-5 MSD	LMCU-SS-12	163	149
480-47844-6	LMCU-SS-19	135	121
480-47844-7	LMCU-SS-16	131	120
480-47844-8	LMCU-SS-15	106	111
480-47844-8 MS	LMCU-SS-15	157	142
480-47844-8 MSD	LMCU-SS-15	148	137
480-47844-9	LMCU-SS-10	145	117
480-47844-10	LMCU-SS-17	131	118
480-47844-11	LMCU-SS-13	139	120
480-47844-13	LMCU-SS-18	144	121
480-47844-14	LMCU-SS-11	137	106
480-47844-15	LMCU-SS-14	126	115
480-47844-16	LMCU-SS-28	143	121
480-47844-19	DUP-1	141	122
480-47844-20	DUP-2	114	115
480-47844-21	LMCU-SS-9	110	118
480-47844-22	LMCU-SS-8	85	111
480-47844-23	LMCU-SS-7	124	118
480-47844-24	LMCU-SS-4	125	120
480-47844-25	LMCU-SS-2	132	121
480-47844-26	LMCU-SS-1	140	121
480-47844-27	LMCU-SS-3	122	115
LCS 480-144724/2-A	Lab Control Sample	159	147
LCS 480-144730/2-A	Lab Control Sample	149	146
MB 480-144724/1-A	Method Blank	144	124
MB 480-144730/1-A	Method Blank	133	122

### Surrogate Legend

DCB = DCB Decachlorobiphenyl  
 TCX = Tetrachloro-m-xylene

TestAmerica Buffalo

# Surrogate Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (23-127)	DCB1 (19-126)
480-47844-1	FB	60	71
LCS 480-144925/2-A	Lab Control Sample	65	72
MB 480-144925/1-A	Method Blank	63	80

#### Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl



# QC Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 480-146452/6**

**Matrix: Water**

**Analysis Batch: 146452**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			10/21/13 23:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.21	ug/L			10/21/13 23:53	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			10/21/13 23:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			10/21/13 23:53	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			10/21/13 23:53	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			10/21/13 23:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			10/21/13 23:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			10/21/13 23:53	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			10/21/13 23:53	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			10/21/13 23:53	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			10/21/13 23:53	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			10/21/13 23:53	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			10/21/13 23:53	1
2-Butanone (MEK)	ND		10	1.3	ug/L			10/21/13 23:53	1
2-Hexanone	ND		5.0	1.2	ug/L			10/21/13 23:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			10/21/13 23:53	1
Acetone	ND		10	3.0	ug/L			10/21/13 23:53	1
Benzene	ND		1.0	0.41	ug/L			10/21/13 23:53	1
Bromodichloromethane	ND		1.0	0.39	ug/L			10/21/13 23:53	1
Bromoform	ND		1.0	0.26	ug/L			10/21/13 23:53	1
Bromomethane	ND		1.0	0.69	ug/L			10/21/13 23:53	1
Carbon disulfide	ND		1.0	0.19	ug/L			10/21/13 23:53	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			10/21/13 23:53	1
Chlorobenzene	ND		1.0	0.75	ug/L			10/21/13 23:53	1
Dibromochloromethane	ND		1.0	0.32	ug/L			10/21/13 23:53	1
Chloroethane	ND		1.0	0.32	ug/L			10/21/13 23:53	1
Chloroform	ND		1.0	0.34	ug/L			10/21/13 23:53	1
Chloromethane	ND		1.0	0.35	ug/L			10/21/13 23:53	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			10/21/13 23:53	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			10/21/13 23:53	1
Cyclohexane	ND		1.0	0.18	ug/L			10/21/13 23:53	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			10/21/13 23:53	1
Ethylbenzene	ND		1.0	0.74	ug/L			10/21/13 23:53	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			10/21/13 23:53	1
Isopropylbenzene	ND		1.0	0.79	ug/L			10/21/13 23:53	1
Methyl acetate	ND		1.0	0.50	ug/L			10/21/13 23:53	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			10/21/13 23:53	1
Methylcyclohexane	ND		1.0	0.16	ug/L			10/21/13 23:53	1
Methylene Chloride	ND		1.0	0.44	ug/L			10/21/13 23:53	1
Styrene	ND		1.0	0.73	ug/L			10/21/13 23:53	1
Tetrachloroethene	ND		1.0	0.36	ug/L			10/21/13 23:53	1
Toluene	ND		1.0	0.51	ug/L			10/21/13 23:53	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			10/21/13 23:53	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			10/21/13 23:53	1
Trichloroethene	ND		1.0	0.46	ug/L			10/21/13 23:53	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			10/21/13 23:53	1
Vinyl chloride	ND		1.0	0.90	ug/L			10/21/13 23:53	1
Xylenes, Total	ND		2.0	0.66	ug/L			10/21/13 23:53	1

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-146452/6**

**Matrix: Water**

**Analysis Batch: 146452**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	99		71 - 126		10/21/13 23:53	1
1,2-Dichloroethane-d4 (Surr)	105		66 - 137		10/21/13 23:53	1
4-Bromofluorobenzene (Surr)	104		73 - 120		10/21/13 23:53	1

**Lab Sample ID: LCS 480-146452/4**

**Matrix: Water**

**Analysis Batch: 146452**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	25.0	23.0		ug/L		92	58 - 121
1,2-Dichlorobenzene	25.0	23.8		ug/L		95	80 - 124
1,2-Dichloroethane	25.0	24.1		ug/L		97	75 - 127
Benzene	25.0	23.7		ug/L		95	71 - 124
Chlorobenzene	25.0	23.5		ug/L		94	72 - 120
cis-1,2-Dichloroethene	25.0	24.0		ug/L		96	74 - 124
Ethylbenzene	25.0	23.4		ug/L		94	77 - 123
Methyl tert-butyl ether	25.0	22.6		ug/L		90	64 - 127
Tetrachloroethene	25.0	22.9		ug/L		91	74 - 122
Toluene	25.0	22.6		ug/L		90	80 - 122
trans-1,2-Dichloroethene	25.0	23.5		ug/L		94	73 - 127
Trichloroethene	25.0	23.2		ug/L		93	74 - 123

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	96		71 - 126
1,2-Dichloroethane-d4 (Surr)	100		66 - 137
4-Bromofluorobenzene (Surr)	104		73 - 120

**Lab Sample ID: 480-47844-5 MS**

**Matrix: Solid**

**Analysis Batch: 146925**

**Client Sample ID: LMCU-SS-12**

**Prep Type: Total/NA**

**Prep Batch: 146484**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	ND		44.3	33.8		ug/Kg	☼	76	59 - 125
1,2-Dichlorobenzene	ND		44.3	22.8	F	ug/Kg	☼	51	75 - 120
1,2-Dichloroethane	ND		44.3	33.2	F	ug/Kg	☼	75	77 - 122
Benzene	ND		44.3	35.1		ug/Kg	☼	79	79 - 127
Chlorobenzene	ND		44.3	31.6	F	ug/Kg	☼	71	76 - 124
cis-1,2-Dichloroethene	ND		44.3	35.6	F	ug/Kg	☼	80	81 - 117
Ethylbenzene	ND		44.3	31.0	F	ug/Kg	☼	70	80 - 120
Methyl tert-butyl ether	ND		44.3	35.9		ug/Kg	☼	81	63 - 125
Tetrachloroethene	ND		44.3	33.1		ug/Kg	☼	75	74 - 122
Toluene	ND		44.3	34.1		ug/Kg	☼	77	74 - 128
trans-1,2-Dichloroethene	ND		44.3	34.7		ug/Kg	☼	78	78 - 126
Trichloroethene	ND		44.3	33.4	F	ug/Kg	☼	75	77 - 129

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 480-47844-5 MS**

**Matrix: Solid**

**Analysis Batch: 146925**

**Client Sample ID: LMCU-SS-12**

**Prep Type: Total/NA**

**Prep Batch: 146484**

<i>Surrogate</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
<i>Toluene-d8 (Surr)</i>	103		71 - 125
<i>1,2-Dichloroethane-d4 (Surr)</i>	90		64 - 126
<i>4-Bromofluorobenzene (Surr)</i>	108		72 - 126

**Lab Sample ID: 480-47844-5 MSD**

**Matrix: Solid**

**Analysis Batch: 146925**

**Client Sample ID: LMCU-SS-12**

**Prep Type: Total/NA**

**Prep Batch: 146484**

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MSD</i>		<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i>		<i>RPD</i>	<i>Limit</i>
				<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>	<i>RPD</i>		
1,1-Dichloroethane	ND		49.1	39.1		ug/Kg	*	80	73 - 126	12	30	
1,1-Dichloroethene	ND		49.1	37.4		ug/Kg	*	76	59 - 125	10	30	
1,2-Dichlorobenzene	ND		49.1	28.8	F	ug/Kg	*	59	75 - 120	23	30	
1,2-Dichloroethane	ND		49.1	38.6		ug/Kg	*	79	77 - 122	15	30	
Benzene	ND		49.1	40.1		ug/Kg	*	82	79 - 127	13	30	
Chlorobenzene	ND		49.1	37.7		ug/Kg	*	77	76 - 124	18	30	
cis-1,2-Dichloroethene	ND		49.1	41.3		ug/Kg	*	84	81 - 117	15	30	
Ethylbenzene	ND		49.1	36.5	F	ug/Kg	*	74	80 - 120	16	30	
Methyl tert-butyl ether	ND		49.1	40.9		ug/Kg	*	83	63 - 125	13	30	
Tetrachloroethene	ND		49.1	38.4		ug/Kg	*	78	74 - 122	15	30	
Toluene	ND		49.1	39.3		ug/Kg	*	80	74 - 128	14	30	
trans-1,2-Dichloroethene	ND		49.1	39.2		ug/Kg	*	80	78 - 126	12	30	
Trichloroethene	ND		49.1	38.8		ug/Kg	*	79	77 - 129	15	30	

<i>Surrogate</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
<i>Toluene-d8 (Surr)</i>	103		71 - 125
<i>1,2-Dichloroethane-d4 (Surr)</i>	93		64 - 126
<i>4-Bromofluorobenzene (Surr)</i>	109		72 - 126

**Lab Sample ID: 480-47844-8 MS**

**Matrix: Solid**

**Analysis Batch: 147088**

**Client Sample ID: LMCU-SS-15**

**Prep Type: Total/NA**

**Prep Batch: 146484**

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MS</i>		<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i>		<i>RPD</i>	<i>Limit</i>
				<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>	<i>RPD</i>		
1,1-Dichloroethane	ND		56.3	46.3		ug/Kg	*	82	73 - 126			
1,1-Dichloroethene	ND		56.3	45.0		ug/Kg	*	80	59 - 125			
1,2-Dichlorobenzene	ND		56.3	34.5	F	ug/Kg	*	61	75 - 120			
1,2-Dichloroethane	ND		56.3	43.2		ug/Kg	*	77	77 - 122			
Benzene	ND		56.3	47.9		ug/Kg	*	85	79 - 127			
Chlorobenzene	ND		56.3	44.9		ug/Kg	*	80	76 - 124			
cis-1,2-Dichloroethene	ND		56.3	48.4		ug/Kg	*	86	81 - 117			
Ethylbenzene	ND		56.3	43.4	F	ug/Kg	*	77	80 - 120			
Methyl tert-butyl ether	ND		56.3	46.4		ug/Kg	*	83	63 - 125			
Tetrachloroethene	ND	*	56.3	44.4		ug/Kg	*	79	74 - 122			
Toluene	ND		56.3	47.4		ug/Kg	*	84	74 - 128			
trans-1,2-Dichloroethene	ND		56.3	47.1		ug/Kg	*	84	78 - 126			
Trichloroethene	ND		56.3	45.7		ug/Kg	*	81	77 - 129			

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 480-47844-8 MS**

**Matrix: Solid**

**Analysis Batch: 147088**

**Client Sample ID: LMCU-SS-15**

**Prep Type: Total/NA**

**Prep Batch: 146484**

<i>Surrogate</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
<i>Toluene-d8 (Surr)</i>	108		71 - 125
<i>1,2-Dichloroethane-d4 (Surr)</i>	92		64 - 126
<i>4-Bromofluorobenzene (Surr)</i>	109		72 - 126

**Lab Sample ID: 480-47844-8 MSD**

**Matrix: Solid**

**Analysis Batch: 147088**

**Client Sample ID: LMCU-SS-15**

**Prep Type: Total/NA**

**Prep Batch: 146484**

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MSD</i>		<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i>		<i>RPD</i>	<i>Limit</i>
				<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>	<i>RPD</i>		
1,1-Dichloroethane	ND		53.7	44.5		ug/Kg	☼	83	73 - 126	4	30	
1,1-Dichloroethene	ND		53.7	43.0		ug/Kg	☼	80	59 - 125	5	30	
1,2-Dichlorobenzene	ND		53.7	33.4	F	ug/Kg	☼	62	75 - 120	3	30	
1,2-Dichloroethane	ND		53.7	41.7		ug/Kg	☼	78	77 - 122	3	30	
Benzene	ND		53.7	45.9		ug/Kg	☼	85	79 - 127	4	30	
Chlorobenzene	ND		53.7	43.7		ug/Kg	☼	81	76 - 124	3	30	
cis-1,2-Dichloroethene	ND		53.7	46.3		ug/Kg	☼	86	81 - 117	4	30	
Ethylbenzene	ND		53.7	41.9	F	ug/Kg	☼	78	80 - 120	4	30	
Methyl tert-butyl ether	ND		53.7	44.9		ug/Kg	☼	84	63 - 125	3	30	
Tetrachloroethene	ND	*	53.7	42.9		ug/Kg	☼	80	74 - 122	3	30	
Toluene	ND		53.7	45.6		ug/Kg	☼	85	74 - 128	4	30	
trans-1,2-Dichloroethene	ND		53.7	45.0		ug/Kg	☼	84	78 - 126	5	30	
Trichloroethene	ND		53.7	43.6		ug/Kg	☼	81	77 - 129	5	30	

<i>Surrogate</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
<i>Toluene-d8 (Surr)</i>	107		71 - 125
<i>1,2-Dichloroethane-d4 (Surr)</i>	94		64 - 126
<i>4-Bromofluorobenzene (Surr)</i>	111		72 - 126

**Lab Sample ID: MB 480-146925/5**

**Matrix: Solid**

**Analysis Batch: 146925**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

<i>Analyte</i>	<i>MB</i>		<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>Result</i>	<i>Qualifier</i>							
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg			10/23/13 13:49	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg			10/23/13 13:49	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg			10/23/13 13:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg			10/23/13 13:49	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg			10/23/13 13:49	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg			10/23/13 13:49	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg			10/23/13 13:49	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg			10/23/13 13:49	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg			10/23/13 13:49	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg			10/23/13 13:49	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg			10/23/13 13:49	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg			10/23/13 13:49	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg			10/23/13 13:49	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg			10/23/13 13:49	1
2-Hexanone	ND		25	2.5	ug/Kg			10/23/13 13:49	1

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-146925/5**

**Matrix: Solid**

**Analysis Batch: 146925**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg			10/23/13 13:49	1
Acetone	ND		25	4.2	ug/Kg			10/23/13 13:49	1
Benzene	ND		5.0	0.25	ug/Kg			10/23/13 13:49	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg			10/23/13 13:49	1
Bromoform	ND		5.0	2.5	ug/Kg			10/23/13 13:49	1
Bromomethane	ND		5.0	0.45	ug/Kg			10/23/13 13:49	1
Carbon disulfide	ND		5.0	2.5	ug/Kg			10/23/13 13:49	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg			10/23/13 13:49	1
Chlorobenzene	ND		5.0	0.66	ug/Kg			10/23/13 13:49	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg			10/23/13 13:49	1
Chloroethane	ND		5.0	1.1	ug/Kg			10/23/13 13:49	1
Chloroform	ND		5.0	0.31	ug/Kg			10/23/13 13:49	1
Chloromethane	ND		5.0	0.30	ug/Kg			10/23/13 13:49	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg			10/23/13 13:49	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg			10/23/13 13:49	1
Cyclohexane	ND		5.0	0.70	ug/Kg			10/23/13 13:49	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg			10/23/13 13:49	1
Ethylbenzene	ND		5.0	0.35	ug/Kg			10/23/13 13:49	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg			10/23/13 13:49	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg			10/23/13 13:49	1
Methyl acetate	ND		5.0	0.93	ug/Kg			10/23/13 13:49	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg			10/23/13 13:49	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg			10/23/13 13:49	1
Methylene Chloride	ND		5.0	2.3	ug/Kg			10/23/13 13:49	1
Styrene	ND		5.0	0.25	ug/Kg			10/23/13 13:49	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg			10/23/13 13:49	1
Toluene	ND		5.0	0.38	ug/Kg			10/23/13 13:49	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg			10/23/13 13:49	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg			10/23/13 13:49	1
Trichloroethene	ND		5.0	1.1	ug/Kg			10/23/13 13:49	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg			10/23/13 13:49	1
Vinyl chloride	ND		5.0	0.61	ug/Kg			10/23/13 13:49	1
Xylenes, Total	ND		10	0.84	ug/Kg			10/23/13 13:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		71 - 125		10/23/13 13:49	1
1,2-Dichloroethane-d4 (Surr)	109		64 - 126		10/23/13 13:49	1
4-Bromofluorobenzene (Surr)	100		72 - 126		10/23/13 13:49	1

**Lab Sample ID: LCS 480-146925/4**

**Matrix: Solid**

**Analysis Batch: 146925**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	50.0	48.6		ug/Kg		97	73 - 126
1,1-Dichloroethene	50.0	44.8		ug/Kg		90	59 - 125
1,2-Dichlorobenzene	50.0	46.5		ug/Kg		93	75 - 120
1,2-Dichloroethane	50.0	51.6		ug/Kg		103	77 - 122

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 480-146925/4**

**Matrix: Solid**

**Analysis Batch: 146925**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	48.6		ug/Kg		97	79 - 127
Chlorobenzene	50.0	47.7		ug/Kg		95	76 - 124
cis-1,2-Dichloroethene	50.0	49.3		ug/Kg		99	81 - 117
Ethylbenzene	50.0	46.0		ug/Kg		92	80 - 120
Methyl tert-butyl ether	50.0	49.3		ug/Kg		99	63 - 125
Tetrachloroethene	50.0	50.2		ug/Kg		100	74 - 122
Toluene	50.0	46.6		ug/Kg		93	74 - 128
trans-1,2-Dichloroethene	50.0	47.4		ug/Kg		95	78 - 126
Trichloroethene	50.0	48.9		ug/Kg		98	77 - 129

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	100		71 - 125
1,2-Dichloroethane-d4 (Surr)	108		64 - 126
4-Bromofluorobenzene (Surr)	103		72 - 126

**Lab Sample ID: MB 480-147088/6**

**Matrix: Solid**

**Analysis Batch: 147088**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg			10/24/13 00:58	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg			10/24/13 00:58	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg			10/24/13 00:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg			10/24/13 00:58	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg			10/24/13 00:58	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg			10/24/13 00:58	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg			10/24/13 00:58	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg			10/24/13 00:58	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg			10/24/13 00:58	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg			10/24/13 00:58	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg			10/24/13 00:58	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg			10/24/13 00:58	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg			10/24/13 00:58	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg			10/24/13 00:58	1
2-Hexanone	ND		25	2.5	ug/Kg			10/24/13 00:58	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg			10/24/13 00:58	1
Acetone	ND		25	4.2	ug/Kg			10/24/13 00:58	1
Benzene	ND		5.0	0.25	ug/Kg			10/24/13 00:58	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg			10/24/13 00:58	1
Bromoform	ND		5.0	2.5	ug/Kg			10/24/13 00:58	1
Bromomethane	ND		5.0	0.45	ug/Kg			10/24/13 00:58	1
Carbon disulfide	ND		5.0	2.5	ug/Kg			10/24/13 00:58	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg			10/24/13 00:58	1
Chlorobenzene	ND		5.0	0.66	ug/Kg			10/24/13 00:58	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg			10/24/13 00:58	1
Chloroethane	ND		5.0	1.1	ug/Kg			10/24/13 00:58	1
Chloroform	ND		5.0	0.31	ug/Kg			10/24/13 00:58	1
Chloromethane	ND		5.0	0.30	ug/Kg			10/24/13 00:58	1

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-147088/6**

**Matrix: Solid**

**Analysis Batch: 147088**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg			10/24/13 00:58	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg			10/24/13 00:58	1
Cyclohexane	ND		5.0	0.70	ug/Kg			10/24/13 00:58	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg			10/24/13 00:58	1
Ethylbenzene	ND		5.0	0.35	ug/Kg			10/24/13 00:58	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg			10/24/13 00:58	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg			10/24/13 00:58	1
Methyl acetate	ND		5.0	0.93	ug/Kg			10/24/13 00:58	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg			10/24/13 00:58	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg			10/24/13 00:58	1
Methylene Chloride	ND		5.0	2.3	ug/Kg			10/24/13 00:58	1
Styrene	ND		5.0	0.25	ug/Kg			10/24/13 00:58	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg			10/24/13 00:58	1
Toluene	ND		5.0	0.38	ug/Kg			10/24/13 00:58	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg			10/24/13 00:58	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg			10/24/13 00:58	1
Trichloroethene	ND		5.0	1.1	ug/Kg			10/24/13 00:58	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg			10/24/13 00:58	1
Vinyl chloride	ND		5.0	0.61	ug/Kg			10/24/13 00:58	1
Xylenes, Total	ND		10	0.84	ug/Kg			10/24/13 00:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		71 - 125		10/24/13 00:58	1
1,2-Dichloroethane-d4 (Surr)	95		64 - 126		10/24/13 00:58	1
4-Bromofluorobenzene (Surr)	112		72 - 126		10/24/13 00:58	1

**Lab Sample ID: LCS 480-147088/4**

**Matrix: Solid**

**Analysis Batch: 147088**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	50.0	47.0		ug/Kg		94	73 - 126
1,1-Dichloroethene	50.0	46.1		ug/Kg		92	59 - 125
1,2-Dichlorobenzene	50.0	51.4		ug/Kg		103	75 - 120
1,2-Dichloroethane	50.0	47.5		ug/Kg		95	77 - 122
Benzene	50.0	49.3		ug/Kg		99	79 - 127
Chlorobenzene	50.0	54.3		ug/Kg		109	76 - 124
cis-1,2-Dichloroethene	50.0	50.5		ug/Kg		101	81 - 117
Ethylbenzene	50.0	51.3		ug/Kg		103	80 - 120
Methyl tert-butyl ether	50.0	49.7		ug/Kg		99	63 - 125
Tetrachloroethene	50.0	61.8	*	ug/Kg		124	74 - 122
Toluene	50.0	52.3		ug/Kg		105	74 - 128
trans-1,2-Dichloroethene	50.0	49.2		ug/Kg		98	78 - 126
Trichloroethene	50.0	52.1		ug/Kg		104	77 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	106		71 - 125

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 480-147088/4**

**Matrix: Solid**

**Analysis Batch: 147088**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

<i>Surrogate</i>	<i>LCS %Recovery</i>	<i>LCS Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	101		64 - 126
4-Bromofluorobenzene (Surr)	116		72 - 126

**Lab Sample ID: MB 480-147179/5**

**Matrix: Solid**

**Analysis Batch: 147179**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

<i>Analyte</i>	<i>MB Result</i>	<i>MB Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg			10/24/13 12:11	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg			10/24/13 12:11	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg			10/24/13 12:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg			10/24/13 12:11	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg			10/24/13 12:11	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg			10/24/13 12:11	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg			10/24/13 12:11	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg			10/24/13 12:11	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg			10/24/13 12:11	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg			10/24/13 12:11	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg			10/24/13 12:11	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg			10/24/13 12:11	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg			10/24/13 12:11	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg			10/24/13 12:11	1
2-Hexanone	ND		25	2.5	ug/Kg			10/24/13 12:11	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg			10/24/13 12:11	1
Acetone	ND		25	4.2	ug/Kg			10/24/13 12:11	1
Benzene	ND		5.0	0.25	ug/Kg			10/24/13 12:11	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg			10/24/13 12:11	1
Bromoform	ND		5.0	2.5	ug/Kg			10/24/13 12:11	1
Bromomethane	ND		5.0	0.45	ug/Kg			10/24/13 12:11	1
Carbon disulfide	ND		5.0	2.5	ug/Kg			10/24/13 12:11	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg			10/24/13 12:11	1
Chlorobenzene	ND		5.0	0.66	ug/Kg			10/24/13 12:11	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg			10/24/13 12:11	1
Chloroethane	ND		5.0	1.1	ug/Kg			10/24/13 12:11	1
Chloroform	ND		5.0	0.31	ug/Kg			10/24/13 12:11	1
Chloromethane	ND		5.0	0.30	ug/Kg			10/24/13 12:11	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg			10/24/13 12:11	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg			10/24/13 12:11	1
Cyclohexane	ND		5.0	0.70	ug/Kg			10/24/13 12:11	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg			10/24/13 12:11	1
Ethylbenzene	ND		5.0	0.35	ug/Kg			10/24/13 12:11	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg			10/24/13 12:11	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg			10/24/13 12:11	1
Methyl acetate	ND		5.0	0.93	ug/Kg			10/24/13 12:11	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg			10/24/13 12:11	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg			10/24/13 12:11	1
Methylene Chloride	ND		5.0	2.3	ug/Kg			10/24/13 12:11	1
Styrene	ND		5.0	0.25	ug/Kg			10/24/13 12:11	1

TestAmerica Buffalo



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: MB 480-147179/5**

**Matrix: Solid**

**Analysis Batch: 147179**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		5.0	0.67	ug/Kg			10/24/13 12:11	1
Toluene	ND		5.0	0.38	ug/Kg			10/24/13 12:11	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg			10/24/13 12:11	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg			10/24/13 12:11	1
Trichloroethene	ND		5.0	1.1	ug/Kg			10/24/13 12:11	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg			10/24/13 12:11	1
Vinyl chloride	ND		5.0	0.61	ug/Kg			10/24/13 12:11	1
Xylenes, Total	ND		10	0.84	ug/Kg			10/24/13 12:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		71 - 125		10/24/13 12:11	1
1,2-Dichloroethane-d4 (Surr)	103		64 - 126		10/24/13 12:11	1
4-Bromofluorobenzene (Surr)	107		72 - 126		10/24/13 12:11	1

**Lab Sample ID: LCS 480-147179/4**

**Matrix: Solid**

**Analysis Batch: 147179**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	50.0	46.5		ug/Kg		93	73 - 126
1,1-Dichloroethene	50.0	43.8		ug/Kg		88	59 - 125
1,2-Dichlorobenzene	50.0	48.6		ug/Kg		97	75 - 120
1,2-Dichloroethane	50.0	47.2		ug/Kg		94	77 - 122
Benzene	50.0	49.0		ug/Kg		98	79 - 127
Chlorobenzene	50.0	50.4		ug/Kg		101	76 - 124
cis-1,2-Dichloroethene	50.0	48.8		ug/Kg		98	81 - 117
Ethylbenzene	50.0	48.2		ug/Kg		96	80 - 120
Methyl tert-butyl ether	50.0	48.3		ug/Kg		97	63 - 125
Tetrachloroethene	50.0	54.8		ug/Kg		110	74 - 122
Toluene	50.0	48.9		ug/Kg		98	74 - 128
trans-1,2-Dichloroethene	50.0	47.2		ug/Kg		94	78 - 126
Trichloroethene	50.0	49.0		ug/Kg		98	77 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	104		71 - 125
1,2-Dichloroethane-d4 (Surr)	104		64 - 126
4-Bromofluorobenzene (Surr)	110		72 - 126

**Lab Sample ID: MB 480-147396/6**

**Matrix: Solid**

**Analysis Batch: 147396**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg			10/25/13 00:33	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg			10/25/13 00:33	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg			10/25/13 00:33	1
1,1,2-Trichloro-1,1,2-trifluoroethane	ND		5.0	1.1	ug/Kg			10/25/13 00:33	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg			10/25/13 00:33	1

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-147396/6

Matrix: Solid

Analysis Batch: 147396

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg			10/25/13 00:33	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg			10/25/13 00:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg			10/25/13 00:33	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg			10/25/13 00:33	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg			10/25/13 00:33	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg			10/25/13 00:33	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg			10/25/13 00:33	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg			10/25/13 00:33	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg			10/25/13 00:33	1
2-Hexanone	ND		25	2.5	ug/Kg			10/25/13 00:33	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg			10/25/13 00:33	1
Acetone	ND		25	4.2	ug/Kg			10/25/13 00:33	1
Benzene	ND		5.0	0.25	ug/Kg			10/25/13 00:33	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg			10/25/13 00:33	1
Bromoform	ND		5.0	2.5	ug/Kg			10/25/13 00:33	1
Bromomethane	ND		5.0	0.45	ug/Kg			10/25/13 00:33	1
Carbon disulfide	ND		5.0	2.5	ug/Kg			10/25/13 00:33	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg			10/25/13 00:33	1
Chlorobenzene	ND		5.0	0.66	ug/Kg			10/25/13 00:33	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg			10/25/13 00:33	1
Chloroethane	ND		5.0	1.1	ug/Kg			10/25/13 00:33	1
Chloroform	ND		5.0	0.31	ug/Kg			10/25/13 00:33	1
Chloromethane	ND		5.0	0.30	ug/Kg			10/25/13 00:33	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg			10/25/13 00:33	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg			10/25/13 00:33	1
Cyclohexane	ND		5.0	0.70	ug/Kg			10/25/13 00:33	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg			10/25/13 00:33	1
Ethylbenzene	ND		5.0	0.35	ug/Kg			10/25/13 00:33	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg			10/25/13 00:33	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg			10/25/13 00:33	1
Methyl acetate	ND		5.0	0.93	ug/Kg			10/25/13 00:33	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg			10/25/13 00:33	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg			10/25/13 00:33	1
Methylene Chloride	ND		5.0	2.3	ug/Kg			10/25/13 00:33	1
Styrene	ND		5.0	0.25	ug/Kg			10/25/13 00:33	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg			10/25/13 00:33	1
Toluene	ND		5.0	0.38	ug/Kg			10/25/13 00:33	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg			10/25/13 00:33	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg			10/25/13 00:33	1
Trichloroethene	ND		5.0	1.1	ug/Kg			10/25/13 00:33	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg			10/25/13 00:33	1
Vinyl chloride	ND		5.0	0.61	ug/Kg			10/25/13 00:33	1
Xylenes, Total	ND		10	0.84	ug/Kg			10/25/13 00:33	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	106		71 - 125		10/25/13 00:33	1
1,2-Dichloroethane-d4 (Surr)	114		64 - 126		10/25/13 00:33	1
4-Bromofluorobenzene (Surr)	106		72 - 126		10/25/13 00:33	1

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-147396/4

Matrix: Solid

Analysis Batch: 147396

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	50.0	48.1		ug/Kg		96	73 - 126
1,1-Dichloroethene	50.0	45.8		ug/Kg		92	59 - 125
1,2-Dichlorobenzene	50.0	46.3		ug/Kg		93	75 - 120
1,2-Dichloroethane	50.0	48.3		ug/Kg		97	77 - 122
Benzene	50.0	49.3		ug/Kg		99	79 - 127
Chlorobenzene	50.0	48.7		ug/Kg		97	76 - 124
cis-1,2-Dichloroethene	50.0	49.2		ug/Kg		98	81 - 117
Ethylbenzene	50.0	47.1		ug/Kg		94	80 - 120
Methyl tert-butyl ether	50.0	47.9		ug/Kg		96	63 - 125
Tetrachloroethene	50.0	55.0		ug/Kg		110	74 - 122
Toluene	50.0	47.6		ug/Kg		95	74 - 128
trans-1,2-Dichloroethene	50.0	48.3		ug/Kg		97	78 - 126
Trichloroethene	50.0	50.3		ug/Kg		101	77 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	103		71 - 125
1,2-Dichloroethane-d4 (Surr)	107		64 - 126
4-Bromofluorobenzene (Surr)	110		72 - 126

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

Lab Sample ID: MB 480-144724/1-A

Matrix: Solid

Analysis Batch: 144916

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 144724

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		220	43	ug/Kg		10/14/13 10:44	10/15/13 19:18	1
PCB-1221	ND		220	43	ug/Kg		10/14/13 10:44	10/15/13 19:18	1
PCB-1232	ND		220	43	ug/Kg		10/14/13 10:44	10/15/13 19:18	1
PCB-1242	ND		220	43	ug/Kg		10/14/13 10:44	10/15/13 19:18	1
PCB-1248	ND		220	43	ug/Kg		10/14/13 10:44	10/15/13 19:18	1
PCB-1254	ND		220	100	ug/Kg		10/14/13 10:44	10/15/13 19:18	1
PCB-1260	ND		220	100	ug/Kg		10/14/13 10:44	10/15/13 19:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	144		47 - 176	10/14/13 10:44	10/15/13 19:18	1
Tetrachloro-m-xylene	124		46 - 175	10/14/13 10:44	10/15/13 19:18	1

Lab Sample ID: LCS 480-144724/2-A

Matrix: Solid

Analysis Batch: 144916

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 144724

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	2040	2860		ug/Kg		140	51 - 185
PCB-1260	2040	2640		ug/Kg		129	61 - 184

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

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

**Lab Sample ID: LCS 480-144724/2-A**  
**Matrix: Solid**  
**Analysis Batch: 144916**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 144724**

	LCS	LCS	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
DCB Decachlorobiphenyl	159		47 - 176
Tetrachloro-m-xylene	147		46 - 175

**Lab Sample ID: 480-47844-5 MS**  
**Matrix: Solid**  
**Analysis Batch: 144916**

**Client Sample ID: LMCU-SS-12**  
**Prep Type: Total/NA**  
**Prep Batch: 144724**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec.	
				Result	Qualifier				Limits	Limits
PCB-1016	ND		2160	2850		ug/Kg	☼	132	42 - 159	
PCB-1260	ND		2160	2710		ug/Kg	☼	126	47 - 153	

	MS	MS	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
DCB Decachlorobiphenyl	156		47 - 176
Tetrachloro-m-xylene	137		46 - 175

**Lab Sample ID: 480-47844-5 MSD**  
**Matrix: Solid**  
**Analysis Batch: 144916**

**Client Sample ID: LMCU-SS-12**  
**Prep Type: Total/NA**  
**Prep Batch: 144724**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec.		RPD	
				Result	Qualifier				Limits	Limits	RPD	Limit
PCB-1016	ND		2530	3520		ug/Kg	☼	139	42 - 159		21	50
PCB-1260	ND		2530	3430		ug/Kg	☼	135	47 - 153		23	50

	MSD	MSD	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
DCB Decachlorobiphenyl	163		47 - 176
Tetrachloro-m-xylene	149		46 - 175

**Lab Sample ID: 480-47844-8 MS**  
**Matrix: Solid**  
**Analysis Batch: 144916**

**Client Sample ID: LMCU-SS-15**  
**Prep Type: Total/NA**  
**Prep Batch: 144724**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec.	
				Result	Qualifier				Limits	Limits
PCB-1016	ND		2330	3300		ug/Kg	☼	142	42 - 159	
PCB-1260	ND		2330	3170		ug/Kg	☼	136	47 - 153	

	MS	MS	
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
DCB Decachlorobiphenyl	157		47 - 176
Tetrachloro-m-xylene	142		46 - 175

**Lab Sample ID: 480-47844-8 MSD**  
**Matrix: Solid**  
**Analysis Batch: 144916**

**Client Sample ID: LMCU-SS-15**  
**Prep Type: Total/NA**  
**Prep Batch: 144724**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec.		RPD	
				Result	Qualifier				Limits	Limits	RPD	Limit
PCB-1016	ND		2710	3470		ug/Kg	☼	128	42 - 159		5	50
PCB-1260	ND		2710	3250		ug/Kg	☼	120	47 - 153		3	50

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

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

**Lab Sample ID: 480-47844-8 MSD**  
**Matrix: Solid**  
**Analysis Batch: 144916**

**Client Sample ID: LMCU-SS-15**  
**Prep Type: Total/NA**  
**Prep Batch: 144724**

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	148		47 - 176
Tetrachloro-m-xylene	137		46 - 175

**Lab Sample ID: MB 480-144730/1-A**  
**Matrix: Solid**  
**Analysis Batch: 144916**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 144730**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		230	45	ug/Kg		10/14/13 10:52	10/15/13 12:09	1
PCB-1221	ND		230	45	ug/Kg		10/14/13 10:52	10/15/13 12:09	1
PCB-1232	ND		230	45	ug/Kg		10/14/13 10:52	10/15/13 12:09	1
PCB-1242	ND		230	45	ug/Kg		10/14/13 10:52	10/15/13 12:09	1
PCB-1248	ND		230	45	ug/Kg		10/14/13 10:52	10/15/13 12:09	1
PCB-1254	ND		230	110	ug/Kg		10/14/13 10:52	10/15/13 12:09	1
PCB-1260	ND		230	110	ug/Kg		10/14/13 10:52	10/15/13 12:09	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	133		47 - 176	10/14/13 10:52	10/15/13 12:09	1
Tetrachloro-m-xylene	122		46 - 175	10/14/13 10:52	10/15/13 12:09	1

**Lab Sample ID: LCS 480-144730/2-A**  
**Matrix: Solid**  
**Analysis Batch: 144916**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 144730**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1260	2440	2950		ug/Kg		121	61 - 184

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	149		47 - 176
Tetrachloro-m-xylene	146		46 - 175

**Lab Sample ID: MB 480-144925/1-A**  
**Matrix: Water**  
**Analysis Batch: 145203**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 144925**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		0.50	0.18	ug/L		10/15/13 06:33	10/16/13 08:53	1
PCB-1221	ND		0.50	0.18	ug/L		10/15/13 06:33	10/16/13 08:53	1
PCB-1232	ND		0.50	0.18	ug/L		10/15/13 06:33	10/16/13 08:53	1
PCB-1242	ND		0.50	0.18	ug/L		10/15/13 06:33	10/16/13 08:53	1
PCB-1248	ND		0.50	0.18	ug/L		10/15/13 06:33	10/16/13 08:53	1
PCB-1254	ND		0.50	0.25	ug/L		10/15/13 06:33	10/16/13 08:53	1
PCB-1260	ND		0.50	0.25	ug/L		10/15/13 06:33	10/16/13 08:53	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	80		19 - 126	10/15/13 06:33	10/16/13 08:53	1

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

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

**Lab Sample ID: MB 480-144925/1-A**  
**Matrix: Water**  
**Analysis Batch: 145203**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 144925**

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	63		23 - 127	10/15/13 06:33	10/16/13 08:53	1

**Lab Sample ID: LCS 480-144925/2-A**  
**Matrix: Water**  
**Analysis Batch: 145203**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 144925**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
PCB-1016	4.00	3.93		ug/L		98	51 - 137	
PCB-1260	4.00	3.48		ug/L		87	45 - 139	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	72		19 - 126
Tetrachloro-m-xylene	65		23 - 127

## Method: 6010C - Metals (ICP)

**Lab Sample ID: MB 480-144541/1-A**  
**Matrix: Solid**  
**Analysis Batch: 144987**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 144541**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lead	0.255	J	0.90	0.22	mg/Kg		10/12/13 11:40	10/14/13 22:12	1
Silver	ND		0.45	0.18	mg/Kg		10/12/13 11:40	10/14/13 22:12	1

**Lab Sample ID: LCSSRM 480-144541/2-A**  
**Matrix: Solid**  
**Analysis Batch: 144987**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 144541**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits	
Lead	136	138.6		mg/Kg		101.8	73.1 - 127. 2	
Silver	61.3	58.50		mg/Kg		95.4	66.9 - 133. 1	

**Lab Sample ID: 480-47844-5 MS**  
**Matrix: Solid**  
**Analysis Batch: 144987**

**Client Sample ID: LMCU-SS-12**  
**Prep Type: Total/NA**  
**Prep Batch: 144541**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
Lead	23.8	B	41.9	61.08		mg/Kg	☼	89	75 - 125	
Silver	ND		10.5	9.07		mg/Kg	☼	87	75 - 125	

**Lab Sample ID: 480-47844-5 MSD**  
**Matrix: Solid**  
**Analysis Batch: 144987**

**Client Sample ID: LMCU-SS-12**  
**Prep Type: Total/NA**  
**Prep Batch: 144541**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	
											RPD	Limit
Lead	23.8	B	40.0	56.83		mg/Kg	☼	83	75 - 125	7	20	
Silver	ND		10.0	8.41		mg/Kg	☼	84	75 - 125	7	20	

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: 480-47844-8 MS**  
**Matrix: Solid**  
**Analysis Batch: 144987**

**Client Sample ID: LMCU-SS-15**  
**Prep Type: Total/NA**  
**Prep Batch: 144541**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	ND		12.0	10.44		mg/Kg	☼	87	75 - 125

**Lab Sample ID: 480-47844-8 MSD**  
**Matrix: Solid**  
**Analysis Batch: 144987**

**Client Sample ID: LMCU-SS-15**  
**Prep Type: Total/NA**  
**Prep Batch: 144541**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	ND		13.8	12.37		mg/Kg	☼	90	75 - 125	17	20

**Lab Sample ID: MB 480-144634/1-A**  
**Matrix: Water**  
**Analysis Batch: 145908**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 144634**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050	0.0030	mg/L		10/14/13 08:45	10/17/13 22:39	1

**Lab Sample ID: LCS 480-144634/2-A**  
**Matrix: Water**  
**Analysis Batch: 145908**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 144634**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.200	0.203		mg/L		102	80 - 120

**Lab Sample ID: LCSD 480-144634/24-A**  
**Matrix: Water**  
**Analysis Batch: 146331**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 144634**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.200	0.207		mg/L		103	80 - 120	2	20

**Lab Sample ID: MB 480-144782/1-A**  
**Matrix: Solid**  
**Analysis Batch: 146298**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 144782**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.92	0.22	mg/Kg		10/14/13 14:15	10/19/13 08:42	1
Silver	ND		0.46	0.18	mg/Kg		10/14/13 14:15	10/19/13 08:42	1

**Lab Sample ID: LCSSRM 480-144782/2-A**  
**Matrix: Solid**  
**Analysis Batch: 146298**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 144782**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	136	141.3		mg/Kg		103.9	73.1 - 127. 2
Silver	61.3	61.61		mg/Kg		100.5	66.9 - 133. 1

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: MB 480-146115/1-A**  
**Matrix: Water**  
**Analysis Batch: 147756**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 146115**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0030	0.0017	mg/L		10/21/13 08:25	10/25/13 13:27	1

**Lab Sample ID: LCS 480-146115/2-A**  
**Matrix: Water**  
**Analysis Batch: 147756**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 146115**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.0500	0.0513		mg/L		103	80 - 120

**Lab Sample ID: MB 480-154501/1-A**  
**Matrix: Solid**  
**Analysis Batch: 154770**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 154501**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.98	0.24	mg/Kg		11/26/13 14:35	11/27/13 12:01	1

**Lab Sample ID: LCSSRM 480-154501/2-A**  
**Matrix: Solid**  
**Analysis Batch: 154770**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 154501**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	115	112.8	^	mg/Kg		98.1	72.1 - 128.7

**Lab Sample ID: 480-47844-8 MS**  
**Matrix: Solid**  
**Analysis Batch: 154770**

**Client Sample ID: LMCU-SS-15**  
**Prep Type: Total/NA**  
**Prep Batch: 154501**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	37.7	^	53.8	88.08	^	mg/Kg	☼	94	75 - 125

**Lab Sample ID: 480-47844-8 MSD**  
**Matrix: Solid**  
**Analysis Batch: 154770**

**Client Sample ID: LMCU-SS-15**  
**Prep Type: Total/NA**  
**Prep Batch: 154501**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	37.7	^	54.4	87.30	^	mg/Kg	☼	91	75 - 125	1	20

## Method: 7196A - Chromium, Hexavalent

**Lab Sample ID: MB 480-144575/3**  
**Matrix: Water**  
**Analysis Batch: 144575**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			10/12/13 13:00	1

TestAmerica Buffalo



# QC Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 7196A - Chromium, Hexavalent (Continued)

**Lab Sample ID: LCS 480-144575/4**

**Matrix: Water**

**Analysis Batch: 144575**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	0.0500	0.0462		mg/L		92	85 - 115

**Lab Sample ID: 480-47844-1 MS**

**Matrix: Water**

**Analysis Batch: 144575**

**Client Sample ID: FB**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	ND		0.0500	0.0454		mg/L		91	85 - 115

**Lab Sample ID: 480-47844-1 DU**

**Matrix: Water**

**Analysis Batch: 144575**

**Client Sample ID: FB**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	ND		ND		mg/L		NC	15

**Lab Sample ID: MB 180-86851/1-A**

**Matrix: Solid**

**Analysis Batch: 87147**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 86851**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.40	0.10	mg/Kg		10/16/13 10:25	10/18/13 14:49	1

**Lab Sample ID: LCS1 180-86851/3-A**

**Matrix: Solid**

**Analysis Batch: 87147**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 86851**

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	708	671.9		mg/Kg		95	80 - 120

**Lab Sample ID: LCSS 180-86851/2-A**

**Matrix: Solid**

**Analysis Batch: 87147**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 86851**

Analyte	Spike Added	LCSS Result	LCSS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	20.0	17.58		mg/Kg		88	80 - 120

**Lab Sample ID: 480-47844-5 MSI**

**Matrix: Solid**

**Analysis Batch: 87147**

**Client Sample ID: LMCU-SS-12**

**Prep Type: Total/NA**

**Prep Batch: 86851**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.11	J	791	967.9		mg/Kg	⊛	122	75 - 125

**Lab Sample ID: 480-47844-5 MSS**

**Matrix: Solid**

**Analysis Batch: 87147**

**Client Sample ID: LMCU-SS-12**

**Prep Type: Total/NA**

**Prep Batch: 86851**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.11	J	22.2	18.27		mg/Kg	⊛	82	75 - 125

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Lab Sample ID: 480-47844-5 DU**  
**Matrix: Solid**  
**Analysis Batch: 87147**

**Client Sample ID: LMCU-SS-12**  
**Prep Type: Total/NA**  
**Prep Batch: 86851**

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Cr (VI)	0.11	J	0.401	J	mg/Kg	⊛	116	20

**Lab Sample ID: MB 180-86856/1-A**  
**Matrix: Solid**  
**Analysis Batch: 87125**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 86856**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cr (VI)	ND		0.40	0.10	mg/Kg		10/16/13 10:42	10/18/13 12:22	1

**Lab Sample ID: LCS1 180-86856/3-A**  
**Matrix: Solid**  
**Analysis Batch: 87125**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 86856**

Analyte	Spike Added	LCS1 Result	LCS1 Qualifier	Unit	D	%Rec	%Rec. Limits

**Lab Sample ID: LCSS 180-86856/2-A**  
**Matrix: Solid**  
**Analysis Batch: 87125**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 86856**

Analyte	Spike Added	LCSS Result	LCSS Qualifier	Unit	D	%Rec	%Rec. Limits

**Lab Sample ID: 480-47844-8 MSI**  
**Matrix: Solid**  
**Analysis Batch: 87125**

**Client Sample ID: LMCU-SS-15**  
**Prep Type: Total/NA**  
**Prep Batch: 86856**

Analyte	Sample	Sample	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier							
Cr (VI)	ND		881	856.7		mg/Kg	⊛	97	75 - 125

**Lab Sample ID: 480-47844-8 MSS**  
**Matrix: Solid**  
**Analysis Batch: 87125**

**Client Sample ID: LMCU-SS-15**  
**Prep Type: Total/NA**  
**Prep Batch: 86856**

Analyte	Sample	Sample	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier							
Cr (VI)	ND		25.0	23.03		mg/Kg	⊛	92	75 - 125

**Lab Sample ID: 480-47844-8 DU**  
**Matrix: Solid**  
**Analysis Batch: 87125**

**Client Sample ID: LMCU-SS-15**  
**Prep Type: Total/NA**  
**Prep Batch: 86856**

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Cr (VI)	ND		0.121	J	mg/Kg	⊛	NC	20

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Method: 9012B - Cyanide, Total and/or Amenable

**Lab Sample ID: MB 480-145153/1-A**  
**Matrix: Water**  
**Analysis Batch: 145633**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 145153**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		10/15/13 20:42	10/17/13 09:43	1

**Lab Sample ID: LCS 480-145153/2-A**  
**Matrix: Water**  
**Analysis Batch: 145633**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145153**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.251		mg/L		100	90 - 110

**Lab Sample ID: MB 480-145692/1-A**  
**Matrix: Solid**  
**Analysis Batch: 145761**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 145692**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.97	0.47	mg/Kg		10/17/13 09:45	10/17/13 20:01	1

**Lab Sample ID: LCS 480-145692/2-A**  
**Matrix: Solid**  
**Analysis Batch: 145761**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145692**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	60.7	45.25		mg/Kg		75	29 - 122

**Lab Sample ID: 480-47844-5 MS**  
**Matrix: Solid**  
**Analysis Batch: 145761**

**Client Sample ID: LMCU-SS-12**  
**Prep Type: Total/NA**  
**Prep Batch: 145692**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		10.5	9.99		mg/Kg	✱	95	85 - 115

**Lab Sample ID: 480-47844-5 MSD**  
**Matrix: Solid**  
**Analysis Batch: 145761**

**Client Sample ID: LMCU-SS-12**  
**Prep Type: Total/NA**  
**Prep Batch: 145692**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	ND		10.8	9.60		mg/Kg	✱	89	85 - 115	4	15

**Lab Sample ID: MB 480-145760/1-A**  
**Matrix: Solid**  
**Analysis Batch: 146030**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 145760**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.99	0.48	mg/Kg		10/17/13 16:35	10/18/13 14:30	1

**Lab Sample ID: LCS 480-145760/2-A**  
**Matrix: Solid**  
**Analysis Batch: 146030**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145760**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	60.7	32.89		mg/Kg		54	29 - 122

TestAmerica Buffalo

# QC Sample Results

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Lab Sample ID: 480-47844-8 MS**  
**Matrix: Solid**  
**Analysis Batch: 146030**

**Client Sample ID: LMCU-SS-15**  
**Prep Type: Total/NA**  
**Prep Batch: 145760**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		12.0	11.03		mg/Kg	☼	92	85 - 115

**Lab Sample ID: 480-47844-8 MSD**  
**Matrix: Solid**  
**Analysis Batch: 146030**

**Client Sample ID: LMCU-SS-15**  
**Prep Type: Total/NA**  
**Prep Batch: 145760**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Cyanide, Total	ND		11.9	11.19		mg/Kg	☼	94	85 - 115	1	15

**Lab Sample ID: MB 480-145987/1-A**  
**Matrix: Solid**  
**Analysis Batch: 146030**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 145987**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.92	0.44	mg/Kg		10/18/13 10:15	10/18/13 15:34	1

**Lab Sample ID: LCS 480-145987/2-A**  
**Matrix: Solid**  
**Analysis Batch: 146030**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 145987**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	60.7	44.35		mg/Kg		73	29 - 122

**Lab Sample ID: 480-47844-22 DU**  
**Matrix: Solid**  
**Analysis Batch: 146030**

**Client Sample ID: LMCU-SS-8**  
**Prep Type: Total/NA**  
**Prep Batch: 145987**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cyanide, Total	ND		ND		mg/Kg	☼	NC	15

**Lab Sample ID: MB 480-146734/1-A**  
**Matrix: Solid**  
**Analysis Batch: 146964**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 146734**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.99	0.48	mg/Kg		10/22/13 19:49	10/23/13 11:53	1

**Lab Sample ID: LCS 480-146734/2-A**  
**Matrix: Solid**  
**Analysis Batch: 146964**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 146734**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	60.7	30.52		mg/Kg		50	29 - 122

TestAmerica Buffalo

# QC Association Summary

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## GC/MS VOA

### Analysis Batch: 146452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-1	FB	Total/NA	Water	8260C	
480-47844-2	TB	Total/NA	Water	8260C	
LCS 480-146452/4	Lab Control Sample	Total/NA	Water	8260C	
MB 480-146452/6	Method Blank	Total/NA	Water	8260C	

### Prep Batch: 146484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-3	LMCU-SS-6	Total/NA	Solid	5035	
480-47844-4	LMCU-SS-5	Total/NA	Solid	5035	
480-47844-5	LMCU-SS-12	Total/NA	Solid	5035	
480-47844-5 MS	LMCU-SS-12	Total/NA	Solid	5035	
480-47844-5 MSD	LMCU-SS-12	Total/NA	Solid	5035	
480-47844-6	LMCU-SS-19	Total/NA	Solid	5035	
480-47844-7	LMCU-SS-16	Total/NA	Solid	5035	
480-47844-8	LMCU-SS-15	Total/NA	Solid	5035	
480-47844-8 MS	LMCU-SS-15	Total/NA	Solid	5035	
480-47844-8 MSD	LMCU-SS-15	Total/NA	Solid	5035	
480-47844-9	LMCU-SS-10	Total/NA	Solid	5035	
480-47844-10	LMCU-SS-17	Total/NA	Solid	5035	
480-47844-11	LMCU-SS-13	Total/NA	Solid	5035	
480-47844-13	LMCU-SS-18	Total/NA	Solid	5035	
480-47844-14	LMCU-SS-11	Total/NA	Solid	5035	
480-47844-15	LMCU-SS-14	Total/NA	Solid	5035	
480-47844-19	DUP-1	Total/NA	Solid	5035	
480-47844-20	DUP-2	Total/NA	Solid	5035	
480-47844-21	LMCU-SS-9	Total/NA	Solid	5035	
480-47844-22	LMCU-SS-8	Total/NA	Solid	5035	
480-47844-23	LMCU-SS-7	Total/NA	Solid	5035	
480-47844-24	LMCU-SS-4	Total/NA	Solid	5035	
480-47844-25	LMCU-SS-2	Total/NA	Solid	5035	
480-47844-26	LMCU-SS-1	Total/NA	Solid	5035	

### Analysis Batch: 146925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-3	LMCU-SS-6	Total/NA	Solid	8260C	146484
480-47844-4	LMCU-SS-5	Total/NA	Solid	8260C	146484
480-47844-5	LMCU-SS-12	Total/NA	Solid	8260C	146484
480-47844-5 MS	LMCU-SS-12	Total/NA	Solid	8260C	146484
480-47844-5 MSD	LMCU-SS-12	Total/NA	Solid	8260C	146484
LCS 480-146925/4	Lab Control Sample	Total/NA	Solid	8260C	
MB 480-146925/5	Method Blank	Total/NA	Solid	8260C	

### Analysis Batch: 147088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-6	LMCU-SS-19	Total/NA	Solid	8260C	146484
480-47844-7	LMCU-SS-16	Total/NA	Solid	8260C	146484
480-47844-8	LMCU-SS-15	Total/NA	Solid	8260C	146484
480-47844-8 MS	LMCU-SS-15	Total/NA	Solid	8260C	146484
480-47844-8 MSD	LMCU-SS-15	Total/NA	Solid	8260C	146484
480-47844-9	LMCU-SS-10	Total/NA	Solid	8260C	146484
480-47844-10	LMCU-SS-17	Total/NA	Solid	8260C	146484

TestAmerica Buffalo

# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## GC/MS VOA (Continued)

### Analysis Batch: 147088 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-11	LMCU-SS-13	Total/NA	Solid	8260C	146484
480-47844-13	LMCU-SS-18	Total/NA	Solid	8260C	146484
480-47844-14	LMCU-SS-11	Total/NA	Solid	8260C	146484
480-47844-15	LMCU-SS-14	Total/NA	Solid	8260C	146484
480-47844-19	DUP-1	Total/NA	Solid	8260C	146484
480-47844-20	DUP-2	Total/NA	Solid	8260C	146484
480-47844-21	LMCU-SS-9	Total/NA	Solid	8260C	146484
480-47844-22	LMCU-SS-8	Total/NA	Solid	8260C	146484
480-47844-23	LMCU-SS-7	Total/NA	Solid	8260C	146484
480-47844-24	LMCU-SS-4	Total/NA	Solid	8260C	146484
LCS 480-147088/4	Lab Control Sample	Total/NA	Solid	8260C	
MB 480-147088/6	Method Blank	Total/NA	Solid	8260C	

### Analysis Batch: 147179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-25	LMCU-SS-2	Total/NA	Solid	8260C	146484
480-47844-26	LMCU-SS-1	Total/NA	Solid	8260C	146484
LCS 480-147179/4	Lab Control Sample	Total/NA	Solid	8260C	
MB 480-147179/5	Method Blank	Total/NA	Solid	8260C	

### Analysis Batch: 147396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-16	LMCU-SS-28	Total/NA	Solid	8260C	147411
480-47844-27	LMCU-SS-3	Total/NA	Solid	8260C	147411
LCS 480-147396/4	Lab Control Sample	Total/NA	Solid	8260C	
MB 480-147396/6	Method Blank	Total/NA	Solid	8260C	

### Prep Batch: 147411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-16	LMCU-SS-28	Total/NA	Solid	5035	
480-47844-27	LMCU-SS-3	Total/NA	Solid	5035	

## GC Semi VOA

### Prep Batch: 144724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-3	LMCU-SS-6	Total/NA	Solid	3550C	
480-47844-4	LMCU-SS-5	Total/NA	Solid	3550C	
480-47844-5	LMCU-SS-12	Total/NA	Solid	3550C	
480-47844-5 MS	LMCU-SS-12	Total/NA	Solid	3550C	
480-47844-5 MSD	LMCU-SS-12	Total/NA	Solid	3550C	
480-47844-6	LMCU-SS-19	Total/NA	Solid	3550C	
480-47844-7	LMCU-SS-16	Total/NA	Solid	3550C	
480-47844-8	LMCU-SS-15	Total/NA	Solid	3550C	
480-47844-8 MS	LMCU-SS-15	Total/NA	Solid	3550C	
480-47844-8 MSD	LMCU-SS-15	Total/NA	Solid	3550C	
480-47844-9	LMCU-SS-10	Total/NA	Solid	3550C	
480-47844-10	LMCU-SS-17	Total/NA	Solid	3550C	
480-47844-11	LMCU-SS-13	Total/NA	Solid	3550C	
480-47844-13	LMCU-SS-18	Total/NA	Solid	3550C	

TestAmerica Buffalo

# QC Association Summary

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## GC Semi VOA (Continued)

### Prep Batch: 144724 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-14	LMCU-SS-11	Total/NA	Solid	3550C	
480-47844-15	LMCU-SS-14	Total/NA	Solid	3550C	
480-47844-16	LMCU-SS-28	Total/NA	Solid	3550C	
480-47844-19	DUP-1	Total/NA	Solid	3550C	
480-47844-20	DUP-2	Total/NA	Solid	3550C	
480-47844-21	LMCU-SS-9	Total/NA	Solid	3550C	
480-47844-22	LMCU-SS-8	Total/NA	Solid	3550C	
480-47844-23	LMCU-SS-7	Total/NA	Solid	3550C	
480-47844-24	LMCU-SS-4	Total/NA	Solid	3550C	
480-47844-25	LMCU-SS-2	Total/NA	Solid	3550C	
LCS 480-144724/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 480-144724/1-A	Method Blank	Total/NA	Solid	3550C	

### Prep Batch: 144730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-26	LMCU-SS-1	Total/NA	Solid	3550C	
480-47844-27	LMCU-SS-3	Total/NA	Solid	3550C	
LCS 480-144730/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 480-144730/1-A	Method Blank	Total/NA	Solid	3550C	

### Analysis Batch: 144916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-3	LMCU-SS-6	Total/NA	Solid	8082A	144724
480-47844-4	LMCU-SS-5	Total/NA	Solid	8082A	144724
480-47844-5	LMCU-SS-12	Total/NA	Solid	8082A	144724
480-47844-5 MS	LMCU-SS-12	Total/NA	Solid	8082A	144724
480-47844-5 MSD	LMCU-SS-12	Total/NA	Solid	8082A	144724
480-47844-6	LMCU-SS-19	Total/NA	Solid	8082A	144724
480-47844-7	LMCU-SS-16	Total/NA	Solid	8082A	144724
480-47844-8	LMCU-SS-15	Total/NA	Solid	8082A	144724
480-47844-8 MS	LMCU-SS-15	Total/NA	Solid	8082A	144724
480-47844-8 MSD	LMCU-SS-15	Total/NA	Solid	8082A	144724
480-47844-9	LMCU-SS-10	Total/NA	Solid	8082A	144724
480-47844-10	LMCU-SS-17	Total/NA	Solid	8082A	144724
480-47844-11	LMCU-SS-13	Total/NA	Solid	8082A	144724
480-47844-13	LMCU-SS-18	Total/NA	Solid	8082A	144724
480-47844-14	LMCU-SS-11	Total/NA	Solid	8082A	144724
480-47844-15	LMCU-SS-14	Total/NA	Solid	8082A	144724
480-47844-16	LMCU-SS-28	Total/NA	Solid	8082A	144724
480-47844-19	DUP-1	Total/NA	Solid	8082A	144724
480-47844-20	DUP-2	Total/NA	Solid	8082A	144724
480-47844-21	LMCU-SS-9	Total/NA	Solid	8082A	144724
480-47844-22	LMCU-SS-8	Total/NA	Solid	8082A	144724
480-47844-23	LMCU-SS-7	Total/NA	Solid	8082A	144724
480-47844-24	LMCU-SS-4	Total/NA	Solid	8082A	144724
480-47844-25	LMCU-SS-2	Total/NA	Solid	8082A	144724
480-47844-26	LMCU-SS-1	Total/NA	Solid	8082A	144730
480-47844-27	LMCU-SS-3	Total/NA	Solid	8082A	144730
LCS 480-144724/2-A	Lab Control Sample	Total/NA	Solid	8082A	144724
LCS 480-144730/2-A	Lab Control Sample	Total/NA	Solid	8082A	144730
MB 480-144724/1-A	Method Blank	Total/NA	Solid	8082A	144724

TestAmerica Buffalo

# QC Association Summary

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## GC Semi VOA (Continued)

### Analysis Batch: 144916 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-144730/1-A	Method Blank	Total/NA	Solid	8082A	144730

### Prep Batch: 144925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-1	FB	Total/NA	Water	3510C	
LCS 480-144925/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 480-144925/1-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 145203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-1	FB	Total/NA	Water	8082A	144925
LCS 480-144925/2-A	Lab Control Sample	Total/NA	Water	8082A	144925
MB 480-144925/1-A	Method Blank	Total/NA	Water	8082A	144925

## Metals

### Prep Batch: 144541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-3	LMCU-SS-6	Total/NA	Solid	3050B	
480-47844-4	LMCU-SS-5	Total/NA	Solid	3050B	
480-47844-5	LMCU-SS-12	Total/NA	Solid	3050B	
480-47844-5 MS	LMCU-SS-12	Total/NA	Solid	3050B	
480-47844-5 MSD	LMCU-SS-12	Total/NA	Solid	3050B	
480-47844-6	LMCU-SS-19	Total/NA	Solid	3050B	
480-47844-7	LMCU-SS-16	Total/NA	Solid	3050B	
480-47844-8	LMCU-SS-15	Total/NA	Solid	3050B	
480-47844-8 MS	LMCU-SS-15	Total/NA	Solid	3050B	
480-47844-8 MSD	LMCU-SS-15	Total/NA	Solid	3050B	
480-47844-9	LMCU-SS-10	Total/NA	Solid	3050B	
480-47844-10	LMCU-SS-17	Total/NA	Solid	3050B	
480-47844-11	LMCU-SS-13	Total/NA	Solid	3050B	
480-47844-13	LMCU-SS-18	Total/NA	Solid	3050B	
480-47844-14	LMCU-SS-11	Total/NA	Solid	3050B	
480-47844-15	LMCU-SS-14	Total/NA	Solid	3050B	
480-47844-16	LMCU-SS-28	Total/NA	Solid	3050B	
480-47844-19	DUP-1	Total/NA	Solid	3050B	
480-47844-20	DUP-2	Total/NA	Solid	3050B	
480-47844-21	LMCU-SS-9	Total/NA	Solid	3050B	
480-47844-22	LMCU-SS-8	Total/NA	Solid	3050B	
480-47844-23	LMCU-SS-7	Total/NA	Solid	3050B	
480-47844-24	LMCU-SS-4	Total/NA	Solid	3050B	
480-47844-25	LMCU-SS-2	Total/NA	Solid	3050B	
LCSSRM 480-144541/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-144541/1-A	Method Blank	Total/NA	Solid	3050B	

### Prep Batch: 144634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-1	FB	Total/NA	Water	3005A	
LCS 480-144634/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-144634/24-A	Lab Control Sample Dup	Total/NA	Water	3005A	

TestAmerica Buffalo



# QC Association Summary

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Metals (Continued)

### Prep Batch: 144634 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-144634/1-A	Method Blank	Total/NA	Water	3005A	

### Prep Batch: 144782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-26	LMCU-SS-1	Total/NA	Solid	3050B	
480-47844-27	LMCU-SS-3	Total/NA	Solid	3050B	
LCSSRM 480-144782/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-144782/1-A	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 144987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-3	LMCU-SS-6	Total/NA	Solid	6010C	144541
480-47844-4	LMCU-SS-5	Total/NA	Solid	6010C	144541
480-47844-5	LMCU-SS-12	Total/NA	Solid	6010C	144541
480-47844-5 MS	LMCU-SS-12	Total/NA	Solid	6010C	144541
480-47844-5 MSD	LMCU-SS-12	Total/NA	Solid	6010C	144541
480-47844-6	LMCU-SS-19	Total/NA	Solid	6010C	144541
480-47844-7	LMCU-SS-16	Total/NA	Solid	6010C	144541
480-47844-8	LMCU-SS-15	Total/NA	Solid	6010C	144541
480-47844-8 MS	LMCU-SS-15	Total/NA	Solid	6010C	144541
480-47844-8 MSD	LMCU-SS-15	Total/NA	Solid	6010C	144541
480-47844-9	LMCU-SS-10	Total/NA	Solid	6010C	144541
480-47844-10	LMCU-SS-17	Total/NA	Solid	6010C	144541
480-47844-11	LMCU-SS-13	Total/NA	Solid	6010C	144541
480-47844-13	LMCU-SS-18	Total/NA	Solid	6010C	144541
480-47844-14	LMCU-SS-11	Total/NA	Solid	6010C	144541
480-47844-15	LMCU-SS-14	Total/NA	Solid	6010C	144541
480-47844-16	LMCU-SS-28	Total/NA	Solid	6010C	144541
480-47844-19	DUP-1	Total/NA	Solid	6010C	144541
480-47844-20	DUP-2	Total/NA	Solid	6010C	144541
480-47844-21	LMCU-SS-9	Total/NA	Solid	6010C	144541
480-47844-22	LMCU-SS-8	Total/NA	Solid	6010C	144541
480-47844-23	LMCU-SS-7	Total/NA	Solid	6010C	144541
480-47844-24	LMCU-SS-4	Total/NA	Solid	6010C	144541
480-47844-25	LMCU-SS-2	Total/NA	Solid	6010C	144541
LCSSRM 480-144541/2-A	Lab Control Sample	Total/NA	Solid	6010C	144541
MB 480-144541/1-A	Method Blank	Total/NA	Solid	6010C	144541

### Analysis Batch: 145858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-26	LMCU-SS-1	Total/NA	Solid	6010C	144782
480-47844-27	LMCU-SS-3	Total/NA	Solid	6010C	144782

### Analysis Batch: 145908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-144634/2-A	Lab Control Sample	Total/NA	Water	6010C	144634
MB 480-144634/1-A	Method Blank	Total/NA	Water	6010C	144634

### Analysis Batch: 145915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-13	LMCU-SS-18	Total/NA	Solid	6010C	144541

TestAmerica Buffalo

# QC Association Summary

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Metals (Continued)

### Prep Batch: 146115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-1	FB	Total/NA	Water	3005A	
LCS 480-146115/2-A	Lab Control Sample	Total/NA	Water	3005A	
MB 480-146115/1-A	Method Blank	Total/NA	Water	3005A	

### Analysis Batch: 146298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSSRM 480-144782/2-A	Lab Control Sample	Total/NA	Solid	6010C	144782
MB 480-144782/1-A	Method Blank	Total/NA	Solid	6010C	144782

### Analysis Batch: 146331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-1	FB	Total/NA	Water	6010C	144634
LCS 480-144634/24-A	Lab Control Sample Dup	Total/NA	Water	6010C	144634

### Analysis Batch: 147235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-1	FB	Total/NA	Water	6010C	146115

### Analysis Batch: 147756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-146115/2-A	Lab Control Sample	Total/NA	Water	6010C	146115
MB 480-146115/1-A	Method Blank	Total/NA	Water	6010C	146115

### Prep Batch: 154501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-8	LMCU-SS-15	Total/NA	Solid	3050B	
480-47844-8 MS	LMCU-SS-15	Total/NA	Solid	3050B	
480-47844-8 MSD	LMCU-SS-15	Total/NA	Solid	3050B	
LCSSRM 480-154501/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-154501/1-A	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 154770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-8	LMCU-SS-15	Total/NA	Solid	6010C	154501
480-47844-8 MS	LMCU-SS-15	Total/NA	Solid	6010C	154501
480-47844-8 MSD	LMCU-SS-15	Total/NA	Solid	6010C	154501
LCSSRM 480-154501/2-A	Lab Control Sample	Total/NA	Solid	6010C	154501
MB 480-154501/1-A	Method Blank	Total/NA	Solid	6010C	154501

## General Chemistry

### Prep Batch: 86851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-3	LMCU-SS-6	Total/NA	Solid	3060A	
480-47844-4	LMCU-SS-5	Total/NA	Solid	3060A	
480-47844-5	LMCU-SS-12	Total/NA	Solid	3060A	
480-47844-5 DU	LMCU-SS-12	Total/NA	Solid	3060A	
480-47844-5 MSI	LMCU-SS-12	Total/NA	Solid	3060A	
480-47844-5 MSS	LMCU-SS-12	Total/NA	Solid	3060A	
480-47844-6	LMCU-SS-19	Total/NA	Solid	3060A	

TestAmerica Buffalo

# QC Association Summary

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## General Chemistry (Continued)

### Prep Batch: 86851 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-7	LMCU-SS-16	Total/NA	Solid	3060A	
480-47844-9	LMCU-SS-10	Total/NA	Solid	3060A	
480-47844-10	LMCU-SS-17	Total/NA	Solid	3060A	
480-47844-11	LMCU-SS-13	Total/NA	Solid	3060A	
480-47844-13	LMCU-SS-18	Total/NA	Solid	3060A	
480-47844-14	LMCU-SS-11	Total/NA	Solid	3060A	
LCSI 180-86851/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSS 180-86851/2-A	Lab Control Sample	Total/NA	Solid	3060A	
MB 180-86851/1-A	Method Blank	Total/NA	Solid	3060A	

### Prep Batch: 86856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-8	LMCU-SS-15	Total/NA	Solid	3060A	
480-47844-8 DU	LMCU-SS-15	Total/NA	Solid	3060A	
480-47844-8 MSI	LMCU-SS-15	Total/NA	Solid	3060A	
480-47844-8 MSS	LMCU-SS-15	Total/NA	Solid	3060A	
480-47844-15	LMCU-SS-14	Total/NA	Solid	3060A	
480-47844-16	LMCU-SS-28	Total/NA	Solid	3060A	
480-47844-19	DUP-1	Total/NA	Solid	3060A	
480-47844-20	DUP-2	Total/NA	Solid	3060A	
480-47844-21	LMCU-SS-9	Total/NA	Solid	3060A	
480-47844-22	LMCU-SS-8	Total/NA	Solid	3060A	
480-47844-23	LMCU-SS-7	Total/NA	Solid	3060A	
480-47844-24	LMCU-SS-4	Total/NA	Solid	3060A	
480-47844-25	LMCU-SS-2	Total/NA	Solid	3060A	
480-47844-26	LMCU-SS-1	Total/NA	Solid	3060A	
480-47844-27	LMCU-SS-3	Total/NA	Solid	3060A	
LCSI 180-86856/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSS 180-86856/2-A	Lab Control Sample	Total/NA	Solid	3060A	
MB 180-86856/1-A	Method Blank	Total/NA	Solid	3060A	

### Analysis Batch: 87125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-8	LMCU-SS-15	Total/NA	Solid	7196A	86856
480-47844-8 DU	LMCU-SS-15	Total/NA	Solid	7196A	86856
480-47844-8 MSI	LMCU-SS-15	Total/NA	Solid	7196A	86856
480-47844-8 MSS	LMCU-SS-15	Total/NA	Solid	7196A	86856
480-47844-15	LMCU-SS-14	Total/NA	Solid	7196A	86856
480-47844-16	LMCU-SS-28	Total/NA	Solid	7196A	86856
480-47844-19	DUP-1	Total/NA	Solid	7196A	86856
480-47844-20	DUP-2	Total/NA	Solid	7196A	86856
480-47844-21	LMCU-SS-9	Total/NA	Solid	7196A	86856
480-47844-22	LMCU-SS-8	Total/NA	Solid	7196A	86856
480-47844-23	LMCU-SS-7	Total/NA	Solid	7196A	86856
480-47844-24	LMCU-SS-4	Total/NA	Solid	7196A	86856
480-47844-25	LMCU-SS-2	Total/NA	Solid	7196A	86856
480-47844-26	LMCU-SS-1	Total/NA	Solid	7196A	86856
480-47844-27	LMCU-SS-3	Total/NA	Solid	7196A	86856
LCSI 180-86856/3-A	Lab Control Sample	Total/NA	Solid	7196A	86856
LCSS 180-86856/2-A	Lab Control Sample	Total/NA	Solid	7196A	86856
MB 180-86856/1-A	Method Blank	Total/NA	Solid	7196A	86856

TestAmerica Buffalo

# QC Association Summary

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## General Chemistry (Continued)

### Analysis Batch: 87147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-3	LMCU-SS-6	Total/NA	Solid	7196A	86851
480-47844-4	LMCU-SS-5	Total/NA	Solid	7196A	86851
480-47844-5	LMCU-SS-12	Total/NA	Solid	7196A	86851
480-47844-5 DU	LMCU-SS-12	Total/NA	Solid	7196A	86851
480-47844-5 MSI	LMCU-SS-12	Total/NA	Solid	7196A	86851
480-47844-5 MSS	LMCU-SS-12	Total/NA	Solid	7196A	86851
480-47844-6	LMCU-SS-19	Total/NA	Solid	7196A	86851
480-47844-7	LMCU-SS-16	Total/NA	Solid	7196A	86851
480-47844-9	LMCU-SS-10	Total/NA	Solid	7196A	86851
480-47844-10	LMCU-SS-17	Total/NA	Solid	7196A	86851
480-47844-11	LMCU-SS-13	Total/NA	Solid	7196A	86851
480-47844-13	LMCU-SS-18	Total/NA	Solid	7196A	86851
480-47844-14	LMCU-SS-11	Total/NA	Solid	7196A	86851
LCSI 180-86851/3-A	Lab Control Sample	Total/NA	Solid	7196A	86851
LCSS 180-86851/2-A	Lab Control Sample	Total/NA	Solid	7196A	86851
MB 180-86851/1-A	Method Blank	Total/NA	Solid	7196A	86851

### Analysis Batch: 144560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-3	LMCU-SS-6	Total/NA	Solid	Moisture	
480-47844-4	LMCU-SS-5	Total/NA	Solid	Moisture	
480-47844-5	LMCU-SS-12	Total/NA	Solid	Moisture	
480-47844-5 MS	LMCU-SS-12	Total/NA	Solid	Moisture	
480-47844-5 MSD	LMCU-SS-12	Total/NA	Solid	Moisture	
480-47844-6	LMCU-SS-19	Total/NA	Solid	Moisture	
480-47844-7	LMCU-SS-16	Total/NA	Solid	Moisture	
480-47844-8	LMCU-SS-15	Total/NA	Solid	Moisture	
480-47844-8 MS	LMCU-SS-15	Total/NA	Solid	Moisture	
480-47844-8 MSD	LMCU-SS-15	Total/NA	Solid	Moisture	
480-47844-9	LMCU-SS-10	Total/NA	Solid	Moisture	
480-47844-10	LMCU-SS-17	Total/NA	Solid	Moisture	
480-47844-11	LMCU-SS-13	Total/NA	Solid	Moisture	
480-47844-13	LMCU-SS-18	Total/NA	Solid	Moisture	
480-47844-14	LMCU-SS-11	Total/NA	Solid	Moisture	
480-47844-15	LMCU-SS-14	Total/NA	Solid	Moisture	
480-47844-16	LMCU-SS-28	Total/NA	Solid	Moisture	
480-47844-19	DUP-1	Total/NA	Solid	Moisture	
480-47844-20	DUP-2	Total/NA	Solid	Moisture	
480-47844-21	LMCU-SS-9	Total/NA	Solid	Moisture	
480-47844-22	LMCU-SS-8	Total/NA	Solid	Moisture	
480-47844-23	LMCU-SS-7	Total/NA	Solid	Moisture	
480-47844-24	LMCU-SS-4	Total/NA	Solid	Moisture	
480-47844-25	LMCU-SS-2	Total/NA	Solid	Moisture	
480-47844-26	LMCU-SS-1	Total/NA	Solid	Moisture	
480-47844-27	LMCU-SS-3	Total/NA	Solid	Moisture	

### Analysis Batch: 144575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-1	FB	Total/NA	Water	7196A	
480-47844-1 DU	FB	Total/NA	Water	7196A	
480-47844-1 MS	FB	Total/NA	Water	7196A	

TestAmerica Buffalo

# QC Association Summary

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## General Chemistry (Continued)

### Analysis Batch: 144575 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-144575/4	Lab Control Sample	Total/NA	Water	7196A	
MB 480-144575/3	Method Blank	Total/NA	Water	7196A	

### Prep Batch: 145153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-1	FB	Total/NA	Water	9012B	
LCS 480-145153/2-A	Lab Control Sample	Total/NA	Water	9012B	
MB 480-145153/1-A	Method Blank	Total/NA	Water	9012B	

### Analysis Batch: 145633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-1	FB	Total/NA	Water	9012B	145153
LCS 480-145153/2-A	Lab Control Sample	Total/NA	Water	9012B	145153
MB 480-145153/1-A	Method Blank	Total/NA	Water	9012B	145153

### Prep Batch: 145692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-3	LMCU-SS-6	Total/NA	Solid	9012B	
480-47844-4	LMCU-SS-5	Total/NA	Solid	9012B	
480-47844-5	LMCU-SS-12	Total/NA	Solid	9012B	
480-47844-5 MS	LMCU-SS-12	Total/NA	Solid	9012B	
480-47844-5 MSD	LMCU-SS-12	Total/NA	Solid	9012B	
480-47844-7	LMCU-SS-16	Total/NA	Solid	9012B	
LCS 480-145692/2-A	Lab Control Sample	Total/NA	Solid	9012B	
MB 480-145692/1-A	Method Blank	Total/NA	Solid	9012B	

### Prep Batch: 145760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-6	LMCU-SS-19	Total/NA	Solid	9012B	
480-47844-8	LMCU-SS-15	Total/NA	Solid	9012B	
480-47844-8 MS	LMCU-SS-15	Total/NA	Solid	9012B	
480-47844-8 MSD	LMCU-SS-15	Total/NA	Solid	9012B	
480-47844-9	LMCU-SS-10	Total/NA	Solid	9012B	
480-47844-10	LMCU-SS-17	Total/NA	Solid	9012B	
480-47844-11	LMCU-SS-13	Total/NA	Solid	9012B	
480-47844-13	LMCU-SS-18	Total/NA	Solid	9012B	
480-47844-14	LMCU-SS-11	Total/NA	Solid	9012B	
480-47844-15	LMCU-SS-14	Total/NA	Solid	9012B	
480-47844-16	LMCU-SS-28	Total/NA	Solid	9012B	
480-47844-19	DUP-1	Total/NA	Solid	9012B	
480-47844-20	DUP-2	Total/NA	Solid	9012B	
480-47844-21	LMCU-SS-9	Total/NA	Solid	9012B	
480-47844-25	LMCU-SS-2	Total/NA	Solid	9012B	
LCS 480-145760/2-A	Lab Control Sample	Total/NA	Solid	9012B	
MB 480-145760/1-A	Method Blank	Total/NA	Solid	9012B	

### Analysis Batch: 145761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-3	LMCU-SS-6	Total/NA	Solid	9012B	145692
480-47844-4	LMCU-SS-5	Total/NA	Solid	9012B	145692
480-47844-5	LMCU-SS-12	Total/NA	Solid	9012B	145692

TestAmerica Buffalo

# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## General Chemistry (Continued)

### Analysis Batch: 145761 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-5 MS	LMCU-SS-12	Total/NA	Solid	9012B	145692
480-47844-5 MSD	LMCU-SS-12	Total/NA	Solid	9012B	145692
480-47844-7	LMCU-SS-16	Total/NA	Solid	9012B	145692
LCS 480-145692/2-A	Lab Control Sample	Total/NA	Solid	9012B	145692
MB 480-145692/1-A	Method Blank	Total/NA	Solid	9012B	145692

### Prep Batch: 145987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-22	LMCU-SS-8	Total/NA	Solid	9012B	
480-47844-22 DU	LMCU-SS-8	Total/NA	Solid	9012B	
480-47844-24	LMCU-SS-4	Total/NA	Solid	9012B	
480-47844-26	LMCU-SS-1	Total/NA	Solid	9012B	
480-47844-27	LMCU-SS-3	Total/NA	Solid	9012B	
LCS 480-145987/2-A	Lab Control Sample	Total/NA	Solid	9012B	
MB 480-145987/1-A	Method Blank	Total/NA	Solid	9012B	

### Analysis Batch: 146030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-6	LMCU-SS-19	Total/NA	Solid	9012B	145760
480-47844-8	LMCU-SS-15	Total/NA	Solid	9012B	145760
480-47844-8 MS	LMCU-SS-15	Total/NA	Solid	9012B	145760
480-47844-8 MSD	LMCU-SS-15	Total/NA	Solid	9012B	145760
480-47844-9	LMCU-SS-10	Total/NA	Solid	9012B	145760
480-47844-10	LMCU-SS-17	Total/NA	Solid	9012B	145760
480-47844-11	LMCU-SS-13	Total/NA	Solid	9012B	145760
480-47844-13	LMCU-SS-18	Total/NA	Solid	9012B	145760
480-47844-14	LMCU-SS-11	Total/NA	Solid	9012B	145760
480-47844-15	LMCU-SS-14	Total/NA	Solid	9012B	145760
480-47844-16	LMCU-SS-28	Total/NA	Solid	9012B	145760
480-47844-19	DUP-1	Total/NA	Solid	9012B	145760
480-47844-20	DUP-2	Total/NA	Solid	9012B	145760
480-47844-21	LMCU-SS-9	Total/NA	Solid	9012B	145760
480-47844-22	LMCU-SS-8	Total/NA	Solid	9012B	145987
480-47844-22 DU	LMCU-SS-8	Total/NA	Solid	9012B	145987
480-47844-24	LMCU-SS-4	Total/NA	Solid	9012B	145987
480-47844-25	LMCU-SS-2	Total/NA	Solid	9012B	145760
480-47844-26	LMCU-SS-1	Total/NA	Solid	9012B	145987
480-47844-27	LMCU-SS-3	Total/NA	Solid	9012B	145987
LCS 480-145760/2-A	Lab Control Sample	Total/NA	Solid	9012B	145760
LCS 480-145987/2-A	Lab Control Sample	Total/NA	Solid	9012B	145987
MB 480-145760/1-A	Method Blank	Total/NA	Solid	9012B	145760
MB 480-145987/1-A	Method Blank	Total/NA	Solid	9012B	145987

### Prep Batch: 146734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-23	LMCU-SS-7	Total/NA	Solid	9012B	
LCS 480-146734/2-A	Lab Control Sample	Total/NA	Solid	9012B	
MB 480-146734/1-A	Method Blank	Total/NA	Solid	9012B	

TestAmerica Buffalo

# QC Association Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## General Chemistry (Continued)

### Analysis Batch: 146964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-47844-23	LMCU-SS-7	Total/NA	Solid	9012B	146734
LCS 480-146734/2-A	Lab Control Sample	Total/NA	Solid	9012B	146734
MB 480-146734/1-A	Method Blank	Total/NA	Solid	9012B	146734

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# Lab Chronicle

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: FB

Date Collected: 10/11/13 16:00

Date Received: 10/12/13 02:00

## Lab Sample ID: 480-47844-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	146452	10/22/13 04:21	RAL	TAL BUF
Total/NA	Prep	3510C			144925	10/15/13 06:33	DLE	TAL BUF
Total/NA	Analysis	8082A		1	145203	10/16/13 15:15	JMM	TAL BUF
Total/NA	Prep	3005A			144634	10/14/13 08:45	NMD2	TAL BUF
Total/NA	Analysis	6010C		1	146331	10/18/13 13:35	AMH	TAL BUF
Total/NA	Prep	3005A			146115	10/21/13 08:25	NMD2	TAL BUF
Total/NA	Analysis	6010C		1	147235	10/23/13 22:59	LMH	TAL BUF
Total/NA	Analysis	7196A		1	144575	10/12/13 13:00	EGN	TAL BUF
Total/NA	Prep	9012B			145153	10/15/13 20:42	NCH	TAL BUF
Total/NA	Analysis	9012B		1	145633	10/17/13 09:54	KMF	TAL BUF

## Client Sample ID: TB

Date Collected: 10/11/13 00:00

Date Received: 10/12/13 02:00

## Lab Sample ID: 480-47844-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	146452	10/22/13 04:46	RAL	TAL BUF

## Client Sample ID: LMCU-SS-6

Date Collected: 10/11/13 11:45

Date Received: 10/12/13 02:00

## Lab Sample ID: 480-47844-3

Matrix: Solid

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	146925	10/23/13 19:07	CDC	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 19:47	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 22:17	LMH	TAL BUF
Total/NA	Prep	3060A			86851	10/16/13 10:25	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87147	10/18/13 15:05	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145692	10/17/13 09:45	KJ1	TAL BUF
Total/NA	Analysis	9012B		1	145761	10/17/13 20:03	NCH	TAL BUF

## Client Sample ID: LMCU-SS-5

Date Collected: 10/11/13 12:30

Date Received: 10/12/13 02:00

## Lab Sample ID: 480-47844-4

Matrix: Solid

Percent Solids: 73.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	146925	10/23/13 19:33	CDC	TAL BUF

TestAmerica Buffalo



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: LMCU-SS-5

## Lab Sample ID: 480-47844-4

Date Collected: 10/11/13 12:30

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 73.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 20:02	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 22:20	LMH	TAL BUF
Total/NA	Prep	3060A			86851	10/16/13 10:25	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87147	10/18/13 15:07	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145692	10/17/13 09:45	KJ1	TAL BUF
Total/NA	Analysis	9012B		1	145761	10/17/13 20:04	NCH	TAL BUF

## Client Sample ID: LMCU-SS-12

## Lab Sample ID: 480-47844-5

Date Collected: 10/11/13 14:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	146925	10/23/13 19:58	CDC	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 20:17	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 22:22	LMH	TAL BUF
Total/NA	Prep	3060A			86851	10/16/13 10:25	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87147	10/18/13 14:54	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145692	10/17/13 09:45	KJ1	TAL BUF
Total/NA	Analysis	9012B		1	145761	10/17/13 20:05	NCH	TAL BUF

## Client Sample ID: LMCU-SS-19

## Lab Sample ID: 480-47844-6

Date Collected: 10/11/13 15:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 83.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 02:33	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 21:01	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 22:42	LMH	TAL BUF
Total/NA	Prep	3060A			86851	10/16/13 10:25	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87147	10/18/13 15:09	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145760	10/17/13 16:35	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 14:40	KMF	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: LMCU-SS-16

## Lab Sample ID: 480-47844-7

Date Collected: 10/11/13 10:00

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 02:59	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 21:16	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 22:44	LMH	TAL BUF
Total/NA	Prep	3060A			86851	10/16/13 10:25	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87147	10/18/13 15:10	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145692	10/17/13 09:45	KJ1	TAL BUF
Total/NA	Analysis	9012B		1	145761	10/17/13 20:08	NCH	TAL BUF

## Client Sample ID: LMCU-SS-15

## Lab Sample ID: 480-47844-8

Date Collected: 10/11/13 11:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 03:24	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 22:00	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 22:47	LMH	TAL BUF
Total/NA	Prep	3050B			154501	11/26/13 14:35	SS1	TAL BUF
Total/NA	Analysis	6010C		1	154770	11/27/13 12:15	AMH	TAL BUF
Total/NA	Prep	3060A			86856	10/16/13 10:42	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87125	10/18/13 12:27	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145760	10/17/13 16:35	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 14:32	KMF	TAL BUF

## Client Sample ID: LMCU-SS-10

## Lab Sample ID: 480-47844-9

Date Collected: 10/10/13 17:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 87.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 04:40	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 22:45	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 22:54	LMH	TAL BUF
Total/NA	Prep	3060A			86851	10/16/13 10:25	CLL	TAL PIT

TestAmerica Buffalo

# Lab Chronicle

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: LMCU-SS-10

## Lab Sample ID: 480-47844-9

Date Collected: 10/10/13 17:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 87.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	87147	10/18/13 15:12	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145760	10/17/13 16:35	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 14:37	KMF	TAL BUF

## Client Sample ID: LMCU-SS-17

## Lab Sample ID: 480-47844-10

Date Collected: 10/10/13 16:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 05:06	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 22:59	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 22:56	LMH	TAL BUF
Total/NA	Prep	3060A			86851	10/16/13 10:25	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87147	10/18/13 15:14	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145760	10/17/13 16:35	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 14:35	KMF	TAL BUF

## Client Sample ID: LMCU-SS-13

## Lab Sample ID: 480-47844-11

Date Collected: 10/10/13 17:14

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 05:31	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 23:14	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 22:59	LMH	TAL BUF
Total/NA	Prep	3060A			86851	10/16/13 10:25	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87147	10/18/13 15:15	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145760	10/17/13 16:35	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 14:41	KMF	TAL BUF

# Lab Chronicle

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: LMCU-SS-18

Lab Sample ID: 480-47844-13

Date Collected: 10/10/13 09:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 05:57	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 23:29	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 23:09	LMH	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	145915	10/17/13 18:55	JRK	TAL BUF
Total/NA	Prep	3060A			86851	10/16/13 10:25	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87147	10/18/13 15:17	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145760	10/17/13 16:35	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 14:36	KMF	TAL BUF

## Client Sample ID: LMCU-SS-11

Lab Sample ID: 480-47844-14

Date Collected: 10/10/13 11:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 06:22	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 23:44	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 23:11	LMH	TAL BUF
Total/NA	Prep	3060A			86851	10/16/13 10:25	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87147	10/18/13 15:19	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145760	10/17/13 16:35	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 14:38	KMF	TAL BUF

## Client Sample ID: LMCU-SS-14

Lab Sample ID: 480-47844-15

Date Collected: 10/10/13 13:30

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 06:48	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 23:59	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 23:13	LMH	TAL BUF
Total/NA	Prep	3060A			86856	10/16/13 10:42	CLL	TAL PIT

TestAmerica Buffalo

# Lab Chronicle

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-14**

**Lab Sample ID: 480-47844-15**

Date Collected: 10/10/13 13:30

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1	87125	10/18/13 12:38	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145760	10/17/13 16:35	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 14:42	KMF	TAL BUF

**Client Sample ID: LMCU-SS-28**

**Lab Sample ID: 480-47844-16**

Date Collected: 10/10/13 15:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 95.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			147411	10/24/13 23:43	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147396	10/25/13 01:38	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/16/13 00:14	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 23:16	LMH	TAL BUF
Total/NA	Prep	3060A			86856	10/16/13 10:42	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87125	10/18/13 12:39	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145760	10/17/13 16:35	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 14:43	KMF	TAL BUF

**Client Sample ID: DUP-1**

**Lab Sample ID: 480-47844-19**

Date Collected: 10/11/13 00:00

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 90.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 07:38	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/16/13 00:58	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 23:18	LMH	TAL BUF
Total/NA	Prep	3060A			86856	10/16/13 10:42	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87125	10/18/13 12:41	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145760	10/17/13 16:35	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 14:44	KMF	TAL BUF

# Lab Chronicle

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: DUP-2

Lab Sample ID: 480-47844-20

Date Collected: 10/11/13 00:00

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 08:04	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/16/13 01:13	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 23:21	LMH	TAL BUF
Total/NA	Prep	3060A			86856	10/16/13 10:42	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87125	10/18/13 12:43	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145760	10/17/13 16:35	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 14:44	KMF	TAL BUF

## Client Sample ID: LMCU-SS-9

Lab Sample ID: 480-47844-21

Date Collected: 10/10/13 11:55

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 72.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 08:29	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/16/13 01:28	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 23:23	LMH	TAL BUF
Total/NA	Prep	3060A			86856	10/16/13 10:42	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87125	10/18/13 12:44	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145760	10/17/13 16:35	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 14:47	KMF	TAL BUF

## Client Sample ID: LMCU-SS-8

Lab Sample ID: 480-47844-22

Date Collected: 10/10/13 12:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 63.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 08:55	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/16/13 01:43	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 23:26	LMH	TAL BUF
Total/NA	Prep	3060A			86856	10/16/13 10:42	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87125	10/18/13 12:46	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: LMCU-SS-8

Lab Sample ID: 480-47844-22

Date Collected: 10/10/13 12:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 63.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			145987	10/18/13 10:15	KJ1	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 15:36	KMF	TAL BUF

## Client Sample ID: LMCU-SS-7

Lab Sample ID: 480-47844-23

Date Collected: 10/10/13 12:55

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 09:20	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/16/13 01:57	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 23:28	LMH	TAL BUF
Total/NA	Prep	3060A			86856	10/16/13 10:42	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87125	10/18/13 12:47	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			146734	10/22/13 19:49	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146964	10/23/13 11:55	EGN	TAL BUF

## Client Sample ID: LMCU-SS-4

Lab Sample ID: 480-47844-24

Date Collected: 10/10/13 13:35

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 70.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147088	10/24/13 09:46	PJQ	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/16/13 02:12	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 23:38	LMH	TAL BUF
Total/NA	Prep	3060A			86856	10/16/13 10:42	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87125	10/18/13 12:52	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145987	10/18/13 10:15	KJ1	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 15:38	KMF	TAL BUF

## Client Sample ID: LMCU-SS-2

Lab Sample ID: 480-47844-25

Date Collected: 10/10/13 15:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF

TestAmerica Buffalo

# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Client Sample ID: LMCU-SS-2

Lab Sample ID: 480-47844-25

Date Collected: 10/10/13 15:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	147179	10/24/13 12:45	CDC	TAL BUF
Total/NA	Prep	3550C			144724	10/14/13 10:44	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/16/13 02:27	JMM	TAL BUF
Total/NA	Prep	3050B			144541	10/12/13 11:40	SS1	TAL BUF
Total/NA	Analysis	6010C		1	144987	10/14/13 23:40	LMH	TAL BUF
Total/NA	Prep	3060A			86856	10/16/13 10:42	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87125	10/18/13 12:54	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145760	10/17/13 16:35	JMB	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 14:48	KMF	TAL BUF

## Client Sample ID: LMCU-SS-1

Lab Sample ID: 480-47844-26

Date Collected: 10/10/13 16:30

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			146484	10/22/13 02:35	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147179	10/24/13 13:11	CDC	TAL BUF
Total/NA	Prep	3550C			144730	10/14/13 10:52	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 15:06	JMM	TAL BUF
Total/NA	Prep	3050B			144782	10/14/13 14:15	NMD2	TAL BUF
Total/NA	Analysis	6010C		1	145858	10/17/13 15:23	LMH	TAL BUF
Total/NA	Prep	3060A			86856	10/16/13 10:42	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87125	10/18/13 12:55	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145987	10/18/13 10:15	KJ1	TAL BUF
Total/NA	Analysis	9012B		1	146030	10/18/13 15:39	KMF	TAL BUF

## Client Sample ID: LMCU-SS-3

Lab Sample ID: 480-47844-27

Date Collected: 10/10/13 17:25

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 81.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			147411	10/24/13 23:43	CDC	TAL BUF
Total/NA	Analysis	8260C		1	147396	10/25/13 02:03	PJQ	TAL BUF
Total/NA	Prep	3550C			144730	10/14/13 10:52	CAM	TAL BUF
Total/NA	Analysis	8082A		1	144916	10/15/13 15:21	JMM	TAL BUF
Total/NA	Prep	3050B			144782	10/14/13 14:15	NMD2	TAL BUF
Total/NA	Analysis	6010C		1	145858	10/17/13 15:26	LMH	TAL BUF
Total/NA	Prep	3060A			86856	10/16/13 10:42	CLL	TAL PIT
Total/NA	Analysis	7196A		1	87125	10/18/13 12:57	HRA	TAL PIT
Total/NA	Analysis	Moisture		1	144560	10/12/13 13:06	GTG	TAL BUF
Total/NA	Prep	9012B			145987	10/18/13 10:15	KJ1	TAL BUF

TestAmerica Buffalo



# Lab Chronicle

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-3**

**Lab Sample ID: 480-47844-27**

**Date Collected: 10/10/13 17:25**

**Matrix: Solid**

**Date Received: 10/12/13 02:00**

**Percent Solids: 81.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9012B		1	146030	10/18/13 15:40	KMF	TAL BUF

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

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# Certification Summary

Client: ARCADIS U.S., Inc.  
 Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-14
California	NELAP	9	1169CA	09-30-14
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-14
Georgia	State Program	4	N/A	03-31-14
Illinois	NELAP	5	200003	09-30-14
Iowa	State Program	7	374	03-01-15
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13 *
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-14
Maine	State Program	1	NY00044	12-04-14
Maryland	State Program	3	294	03-31-14
Massachusetts	State Program	1	M-NY044	06-30-14
Michigan	State Program	5	9937	04-01-14
Minnesota	NELAP	5	036-999-337	12-31-13 *
New Hampshire	NELAP	1	2337	11-17-14
New Jersey	NELAP	2	NY455	06-30-14
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-14
Oklahoma	State Program	6	9421	08-31-14
Oregon	NELAP	10	NY200003	06-09-14
Pennsylvania	NELAP	3	68-00281	07-31-14
Rhode Island	State Program	1	LAO00328	12-31-13 *
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-14
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-14
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	12-31-13 *
Wisconsin	State Program	5	998310390	08-31-14

## Laboratory: TestAmerica Pittsburgh

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-14
California	NELAP	9	4224CA	03-31-14
Connecticut	State Program	1	PH-0688	09-30-14
Florida	NELAP	4	E871008	06-30-14
Illinois	NELAP	5	002602	06-30-14
Kansas	NELAP	7	E-10350	01-31-14
L-A-B	DoD ELAP		L2314	07-16-16
Louisiana	NELAP	6	04041	06-30-14
New Hampshire	NELAP	1	203011	04-05-14
New Jersey	NELAP	2	PA005	06-30-14
New York	NELAP	2	11182	04-01-14
North Carolina DENR	State Program	4	434	12-31-13 *
Pennsylvania	NELAP	3	02-00416	04-30-14
South Carolina	State Program	4	89014	04-30-14

\* Expired certification is currently pending renewal and is considered valid.

# Certification Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

## Laboratory: TestAmerica Pittsburgh (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
US Fish & Wildlife	Federal		LE94312A-1	11-30-14
USDA	Federal		P330-10-00139	05-23-16
Utah	NELAP	8	STLP	04-30-14
Virginia	NELAP	3	460189	09-14-14
West Virginia DEP	State Program	3	142	01-31-14
Wisconsin	State Program	5	998027800	08-31-14

# Method Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL PIT
7196A	Chromium, Hexavalent	SW846	TAL BUF
9012B	Cyanide, Total and/or Amenable	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

**Protocol References:**

EPA = US Environmental Protection Agency

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

**Laboratory References:**

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

# Sample Summary

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-47844-1	FB	Water	10/11/13 16:00	10/12/13 02:00
480-47844-2	TB	Water	10/11/13 00:00	10/12/13 02:00
480-47844-3	LMCU-SS-6	Solid	10/11/13 11:45	10/12/13 02:00
480-47844-4	LMCU-SS-5	Solid	10/11/13 12:30	10/12/13 02:00
480-47844-5	LMCU-SS-12	Solid	10/11/13 14:20	10/12/13 02:00
480-47844-6	LMCU-SS-19	Solid	10/11/13 15:20	10/12/13 02:00
480-47844-7	LMCU-SS-16	Solid	10/11/13 10:00	10/12/13 02:00
480-47844-8	LMCU-SS-15	Solid	10/11/13 11:20	10/12/13 02:00
480-47844-9	LMCU-SS-10	Solid	10/10/13 17:50	10/12/13 02:00
480-47844-10	LMCU-SS-17	Solid	10/10/13 16:50	10/12/13 02:00
480-47844-11	LMCU-SS-13	Solid	10/10/13 17:14	10/12/13 02:00
480-47844-13	LMCU-SS-18	Solid	10/10/13 09:50	10/12/13 02:00
480-47844-14	LMCU-SS-11	Solid	10/10/13 11:20	10/12/13 02:00
480-47844-15	LMCU-SS-14	Solid	10/10/13 13:30	10/12/13 02:00
480-47844-16	LMCU-SS-28	Solid	10/10/13 15:20	10/12/13 02:00
480-47844-19	DUP-1	Solid	10/11/13 00:00	10/12/13 02:00
480-47844-20	DUP-2	Solid	10/11/13 00:00	10/12/13 02:00
480-47844-21	LMCU-SS-9	Solid	10/10/13 11:55	10/12/13 02:00
480-47844-22	LMCU-SS-8	Solid	10/10/13 12:20	10/12/13 02:00
480-47844-23	LMCU-SS-7	Solid	10/10/13 12:55	10/12/13 02:00
480-47844-24	LMCU-SS-4	Solid	10/10/13 13:35	10/12/13 02:00
480-47844-25	LMCU-SS-2	Solid	10/10/13 15:50	10/12/13 02:00
480-47844-26	LMCU-SS-1	Solid	10/10/13 16:30	10/12/13 02:00
480-47844-27	LMCU-SS-3	Solid	10/10/13 17:25	10/12/13 02:00

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt \_\_\_\_\_

Drinking Water? Yes  No

## Chain of Custody Record

TAL-4124 (1007)

Client: Aradix Project Manager: D. Zerk Chain of Custody Number: 231371  
 Address: 6723 Townpath Rd Telephone Number (Area Code)/Fax Number: 516-369-2741/315-671-918 Date: 10/11/13 Page 1 of 2  
 City: Spartanburg Zip Code: 29214 Site Contact: D. Zerk Lab Contact: C. Fox Analysis (Attach list if more space is needed):  
 Project Name and Location (State): LMC Utility NY Carrier/Waybill Number: \_\_\_\_\_  
 Contract/Purchase Order/Quote No.: \_\_\_\_\_

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Special Instructions/ Conditions of Receipt			
			Air	Sed	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	#				
FB	10/11/13	1600	X													
TB	10/11/13		X													
L-MCU-SS-6	10/11/13	1145			X											
"		1230														
		1420														MS/MSD
		1520														
		1600														
		1120														MS/MSD
	10/14/13	1750														
		1650														
		1714														
	10/11/13	1430														

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required:  24 Hours  48 Hours  7 Days  14 Days  21 Days  Other \_\_\_\_\_

1. Relinquished By: [Signature] Date: 10/11/13 Time: 1630  
 2. Relinquished By: [Signature] Date: 10-11-13 Time: 1900  
 3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

QC Requirements (Specify):  
 1. Received By: [Signature] Date: 10-11-13 Time: 1630  
 2. Received By: [Signature] Date: 10-12-11 Time: 1200  
 3. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Comments: 2.1 2.4 3.6 3.2 #1

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt \_\_\_\_\_  
 Drinking Water? Yes  No

## Chain of Custody Record

TAL-4124 (1007)

Client: **Arados** Project Manager: **D. Zuck** Chain of Custody Number: **231373**  
 Address: **6723 Tompoko Rd** Telephone Number (Area Code)/Fax Number: **315-671-9152** Lab Number: **10/11/13**  
 City: **Sydney** State: **NY** Zip Code: **13214** Site Contact: **D. Zuck** Lab Contact: **C. FOX** Page **2** of **2**  
 Project Name and Location (State): **LML Utica** Carrier/Waybill Number: \_\_\_\_\_

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt	
			Air	Aqueous	Sed	Soil	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc NaOH			#
L-MCU-SS- <del>11</del> 4-16	10/10/13	1120				X									
	10/14/13	1330													
	10/9/13	1520													
	10/9/13	1259													
	10/9/13	1200													
	10/9/13	1230													
DUP-1	10/11/13														
DUP-2	10/11/13														

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

QC Requirements (Specify): \_\_\_\_\_

Turn Around Time Required:  24 Hours  48 Hours  7 Days  14 Days  21 Days  Other

1. Relinquished By: **D. Zuck** Date: **10/11/13** Time: **16:30**  
 2. Relinquished By: **TAL SYR** Date: **10-11-13** Time: **16:30**  
 3. Relinquished By: **TAL** Date: **10-12-13** Time: **0200**

Comments: **2.1 2.4 3 6 3.2 #1**



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt \_\_\_\_\_

Drinking Water? Yes  No

## Chain of Custody Record

TAL-4124 (1007)

Client: **Francis** Project Manager: **D. Zuck** Date: **10/11/13** Chain of Custody Number: **231372**

Address: **6773 Towpath Rd** Telephone Number (Area Code)/Fax Number: **215-671-1152** Lab Number: \_\_\_\_\_ Page: **3** of **3**

City: **Smyrna** Site: **NY** Zip Code: **13214** Site Contact: **DZUC** Lab Contact: **FOX**

Project Name and Location (Stamp): **EMC M-10** Carrier/Maybill Number: \_\_\_\_\_

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix			Containers & Preservatives					Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt	
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl			NaOH
LACU-65-9	10/10/13	1155				X							
11-5		1220											
11-7		1244											
11-11		1236											
11-7		1446											
11-7		1626											
11-7		1774											

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  14 Days  21 Days  Other \_\_\_\_\_

Turn Around Time Required:  48 Hours  7 Days  14 Days  21 Days  Other \_\_\_\_\_

1. Relinquished By: **[Signature]** Date: **10/13/13** Time: **10:30**

2. Relinquished By: **[Signature]** Date: **10-11-13** Time: **1900**

3. Relinquished By: **[Signature]** Date: \_\_\_\_\_ Time: \_\_\_\_\_

QC Requirements (Specify): \_\_\_\_\_

Sample Disposal:  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

1. Received By: **[Signature]** Date: **10/11/13** Time: **16:30**

2. Received By: **[Signature]** Date: **10-2-13** Time: **0200**

3. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Comments: \_\_\_\_\_

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

2012136 J2 #1





## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

**Login Number: 47844**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Wienke, Robert K**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	False	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

**Login Number: 47844**

**List Number: 1**

**Creator: Kovitch, Christina M**

**List Source: TestAmerica Pittsburgh**

**List Creation: 10/15/13 12:02 PM**

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





**Attachment 2**

Imagine the result



## **Lockheed Martin Corporation**

### **Data Usability Summary Report**

UTICA, NEW YORK

Volatiles, PCBs, Metals and Miscellaneous Analyses

SDG# 480-47844-1

TestAmerica  
Amherst, New York

Report: #20739Rev1  
Review Level: Tier III  
Project: NJ001046.0001.00300

## SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) # 480-47844-1 for samples collected in association with the Lockheed Martin West Lot Site, Utica, New York. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
FB-20131011	480-47844-1	Water	10/11/2013		X		X	X	X
LMCU-SS-17	480-47844-10	Soil	10/10/2013		X		X	X	X
LMCU-SS-13	480-47844-11	Soil	10/10/2013		X		X	X	X
LMCU-SS-18	480-47844-13	Soil	10/10/2013		X		X	X	X
LMCU-SS-11	480-47844-14	Soil	10/10/2013		X		X	X	X
LMCU-SS-14	480-47844-15	Soil	10/10/2013		X		X	X	X
LMCU-SS-28	480-47844-16	Soil	10/10/2013		X		X	X	X
DUP-1-20131011	480-47844-19	Soil	10/11/2013	LMCU-SS-6	X		X	X	X
TRIP BLANK-20131011	480-47844-2	Water	10/11/2013		X				
DUP-2-20131011	480-47844-20	Soil	10/11/2013	LMCU-SS-19	X		X	X	X
LMCU-SS-9	480-47844-21	Soil	10/10/2013		X		X	X	X
LMCU-SS-8	480-47844-22	Soil	10/10/2013		X		X	X	X
LMCU-SS-7	480-47844-23	Soil	10/10/2013		X		X	X	X
LMCU-SS-4	480-47844-24	Soil	10/10/2013		X		X	X	X
LMCU-SS-2	480-47844-25	Soil	10/10/2013		X		X	X	X
LMCU-SS-1	480-47844-26	Soil	10/10/2013		X		X	X	X
LMCU-SS-3	480-47844-27	Soil	10/10/2013		X		X	X	X
LMCU-SS-6	480-47844-3	Soil	10/11/2013		X		X	X	X
LMCU-SS-5	480-47844-4	Soil	10/11/2013		X		X	X	X
LMCU-SS-12	480-47844-5	Soil	10/11/2013		X		X	X	X
LMCU-SS-19	480-47844-6	Soil	10/11/2013		X		X	X	X
LMCU-SS-16	480-47844-7	Soil	10/11/2013		X		X	X	X
LMCU-SS-15	480-47844-8	Soil	10/11/2013		X		X	X	X
LMCU-SS-10	480-47844-9	Soil	10/10/2013		X		X	X	X

**Note:**

1. A matrix spike/matrix spike duplicate was performed on sample locations LMCU-SS-12 and LMCU-SS-15.

## ANALYTICAL DATA PACKAGE DOCUMENTATION

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Sample receipt condition		X		X	
Requested analyses and sample results		X		X	
Collection Technique (grab, composite, etc.)		X		X	
Methods of analysis		X		X	
Reporting limits		X		X	
Sample collection date		X		X	
Laboratory sample received date		X		X	
Sample preservation verification (as applicable)		X		X	
Sample preparation/extraction/analysis dates		X		X	
Fully executed Chain-of-Custody (COC) form completed		X		X	
Narrative summary of QA or sample problems provided		X		X	
Data Package Completeness and Compliance		X		X	

QA - Quality Assurance

## ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 8260C and 8082A. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is

that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.



# VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

## 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis	Cool to <6 °C; preserved to a pH of less than 2 s.u.
	Soil	48 hours from collection to extraction and 14 days from extraction to analysis	Cool to <6 °C.

s.u. Standard units

The analyses that exceeded the holding time are presented in the following table.

Sample Locations	Holding Time	Criteria
LMCU-SS-28 LMCU-SS-3	Completed in 15 days	14 days

Sample results associated with sample locations analyzed by analytical method SW-846 8260C were qualified, as specified in the table below. All other holding times were met.

Criteria	Qualification	
	Detected Analytes	Non-detect Analytes
Analysis completed less than two times holding time	J	UJ

## 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

## 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 12-hour tune clock.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

##### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (15%) or a correlation coefficient greater than 0.99 and an RRF value greater than control limit (0.05).

##### 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (20%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

Sample Locations	Initial/Continuing	Compound	Criteria
FB-20131011 TRIP BLANK-20131011	CCV %D	Cyclohexane	-21.7%
LMCU-SS-6 LMCU-SS-5 LMCU-SS-12	CCV %D	Chloroethane	27.2%
LMCU-SS-19 LMCU-SS-16 LMCU-SS-15 LMCU-SS-10 LMCU-SS-17 LMCU-SS-13 LMCU-SS-18 LMCU-SS-11 LMCU-SS-14 DUP-1-20131011 DUP-2-20131011 LMCU-SS-9 LMCU-SS-8 LMCU-SS-7 LMCU-SS-4	CCV %D	Bromoform	-21.6%
LMCU-SS-2 LMCU-SS-1	CCV %D	Bromoform	-21.6%
LMCU-SS-28 LMCU-SS-3	CCV %D	Dichlorodifluoromethane	-22.3%

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

Initial/Continuing	Criteria	Sample Result	Qualification
Initial and Continuing Calibration	RRF <0.05	Non-detect	R
		Detect	J
	RRF <0.01 <sup>1</sup>	Non-detect	R
		Detect	J
	RRF >0.05 or RRF >0.01 <sup>1</sup>	Non-detect	No Action
		Detect	
Initial Calibration	%RSD > 15% or a correlation coefficient <0.99	Non-detect	UJ
		Detect	J
	%RSD >90%	Non-detect	R
		Detect	J
Continuing Calibration	%D >20% (increase in sensitivity)	Non-detect	No Action
		Detect	J
	%D >20% (decrease in sensitivity)	Non-detect	UJ
		Detect	J
	%D >90% (increase/decrease in sensitivity)	Non-detect	R
		Detect	J

<sup>1</sup> RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

## 5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

## 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than two times (+100%) or less than one-half (-50%) of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

## 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established

acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
LMCU-SS-12	1,2-Dichlorobenzene	<LL but >10%	<LL but >10%
	Ethylbenzene		
	1,2-Dichloroethane	<LL but >10%	AC
	Chlorobenzene		
	cis-1,2-Dichloroethene		
	Trichloroethene		
LMCU-SS-15	1,2-Dichlorobenzene	<LL but >10%	<LL but >10%
	Ethylbenzene		

AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

## 8. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

Sample locations associated with LCS analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	LCS Recovery
LMCU-SS-19 LMCU-SS-16 LMCU-SS-15 LMCU-SS-10 LMCU-SS-17 LMCU-SS-13 LMCU-SS-18 LMCU-SS-11 LMCU-SS-14 LMCU-SS-28 DUP-1-20131011 DUP-2-20131011 LMCU-SS-9 LMCU-SS-8 LMCU-SS-7 LMCU-SS-4	Tetrachloroethene	>UL

The criteria used to evaluate the LCS recoveries are presented in the following table. In the case of an LCS deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

Note: Sample results were not qualified as rejected (R) due to the deviations listed above.

## 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
LMCU-SS-6/DUP-1-20131011	Ethylbenzene	0.4 J	4.5 U	AC
	Xylenes, Total	1.9 J	8.9 U	AC
LMCU-SS-19/DUP-2-20131011	All compounds	U	U	AC

AC Acceptable  
U Not detected

The calculated RPDs between the parent sample and field duplicate were acceptable.

## **10. Compound Identification**

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

## **11. System Performance and Overall Assessment**

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

## DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
<b>Tier II Validation</b>					
Holding times		X	X		
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X		X	
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X	X		
Laboratory Control Sample Duplicate(LCSD)					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate(MSD)		X	X		
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
<b>Tier III Validation</b>					
System performance and column resolution		X		X	
Initial calibration %RSDs		X		X	
Continuing calibration RRFs		X		X	
Continuing calibration %Ds		X	X		
Instrument tune and performance check		X		X	
Ion abundance criteria for each instrument used		X		X	
Internal standard		X		X	
Compound identification and quantitation					
A. Reconstructed ion chromatograms		X		X	
B. Quantitation Reports		X		X	
C. RT of sample compounds within the established RT windows		X		X	
D. Transcription/calculation errors present		X		X	

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD Relative standard deviation  
 %R Percent recovery  
 RPD Relative percent difference  
 %D Percent difference



# POLYCHLORINATED BIPHENYLS (PCBs) ANALYSES

## 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8082	Water	7 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C.
	Soil	14 days from collection to extraction and 40 days from extraction to analysis	Cool to <6 °C.

All samples were analyzed within the specified holding time criteria.

## 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

## 3. System Performance

System performance and column resolution were acceptable.

## 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory

### 4.1 Initial Calibration

A maximum RSD of 20% is allowed or a correlation coefficient greater than 0.99. Multiple-point calibrations were performed for Aroclor 1016 and 1260 only. Single-point calibrations were performed for the remaining Aroclors.

## 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (15%).

All calibration criteria were within the control limits.

## 5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. PCB analysis requires that one of the two PCB surrogate compounds exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries reported from the primary column were within control limits.

## 6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSD exhibited acceptable recoveries and RPD between the MS/MSD recoveries.

## 7. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

## 8. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
LMCU-SS-6/DUP-1-20131011	All compounds	U	U	AC
LMCU-SS-19/DUP-2-20131011	All compounds	U	U	AC

AC Acceptable

U Not detected

The calculated RPDs between the parent sample and field duplicate were acceptable.

## 9. Compound Identification

The retention times of all quantitated peaks must fall within the calculated retention time windows for both the primary and confirmation columns. When dual column analysis is performed the relative percent difference (%RPD) of detected sample results must be less than 40%.

Sample locations associated with RPD analysis exhibiting recoveries outside of the control limits presented in the following table.

Sample Locations	Compound	RPD
LMCU-SS-15	Aroclor 1254	61.1%
LMCU-SS-28	Aroclor 1254	63.5%

The criteria used to evaluate the RPD are presented in the following table. In the case of a RPD deviation, the sample results are qualified as documented in the table below.

Control Limit (%D)	Qualification
>40% to 70%	J
>70% to 100%	JN
>100% <sup>1</sup>	R
>100% to 200% (Interference detected) <sup>2</sup>	J or JN
>50% (PCB sample results less than the RL)	U

When the PCB sample results are less than the RL and the RPD greater than 50% the sample result are raised to the RL and reported as non-detect.

Note 1: If the pattern is confirmed sample results will be qualified as estimated (J). If pattern exhibits interference or if the PCB cannot be positively determined due to weathering the sample results will be qualified as tentative identification estimate (JN).

Note 2: If interference is detected in either column the sample results will be qualified as tentative identification estimate (JN).

## 10. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

## DATA VALIDATION CHECKLIST FOR PCBs

PCBs: SW-846 8082	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY (GC/ECD)					
<b>Tier II Validation</b>					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Column (RPD) (If dual column is performed-not confirmation purposes only)		X	X		
Dilution Factor		X		X	
Moisture Content		X		X	
<b>Tier III Validation</b>					
Initial calibration %RSDs		X		X	
Continuing calibration %Ds		X		X	
System performance and column resolution		X		X	
Compound identification and quantitation					
A. Quantitation Reports		X		X	
B. RT of sample compounds within the established RT windows		X		X	
C. Pattern identification		X		X	
D. Transcription/calculation errors present		X		X	
E. Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

## INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) Methods 6010C, 7196A and 9012B. Data were reviewed in accordance with USEPA National Functional Guidelines of July 2002.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

B The reported value was obtained from a reading less than the contract-required detection limit (CRDL), but greater than or equal to the instrument detection limit (IDL).

- Quantitation (Q) Qualifiers

E The reported value is estimated due to the presence of interference.

N Spiked sample recovery is not within control limits.

\* Duplicate analysis is not within control limits.

- Validation Qualifiers

J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

UB Analyte considered non-detect at the listed value due to associated blank contamination.

R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

# METALS ANALYSES

## 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6010C	Water	180 days from collection to analysis	Cool to <6 °C; preserved to a pH of less than 2.
	Soil	180 days from collection to analysis	Cool to <6 °C.

All samples were analyzed within the specified holding times.

## 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the instrument detection limit (IDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were detected in the associated QA blanks; however, the associated sample results were greater than the BAL and/or were non-detect. Therefore, sample results greater than the BAL resulted in the removal of the laboratory qualifier (B). No other qualification of the sample results was required.

## 3. Calibration

Satisfactory instrument calibration is established to provide that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument's continuing performance is satisfactory.

### 3.1 Initial Calibration and Continuing Calibration

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 for all non-ICP analytes and all initial calibration verification standard recoveries were within control limits.

All continuing calibration verification standard recoveries were within the control limit.

### 3.2 CRDL Check Standard

The CRDL check standard serves to verify the linearity of calibration of the analysis at the CRDL. The CRDL standard is not required for the analysis of aluminum (Al), barium (Ba), calcium (Ca), iron (Fe), magnesium (Mg), sodium (Na), and potassium (K). The criteria used to evaluate the CRDL standard

analysis are presented below in the CRDL standards evaluation table (if applicable).

All CRDL standard recoveries were within control limits.

### 3.3 ICP Interference Control Sample (ICS)

The ICS verifies the laboratories interelement and background correction factors.

All ICS exhibited recoveries within the control limits.

## 4. Matrix Spike (MS)/ Matrix Spike Duplicate (MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

### 4.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

The MS/MSD analysis performed on sample locations LMCU-SS-12 and LMCU-SS-15 exhibited recoveries within the control limits.

### 4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

MS/MSD analysis was performed in replacement of the laboratory duplicate analysis. The MS/MSD recoveries exhibited acceptable RPD.

## 5. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
LMCU-SS-6/DUP-1-20131011	Lead	21.8	16.6	27.0%
	Silver	0.57 U	0.54 U	AC
LMCU-SS-19/DUP-2-20131011	Lead	17	18.4	7.9%
	Silver	0.56 U	0.65 U	AC

AC Acceptable

U Not detected

The calculated RPDs between the parent sample and field duplicate were acceptable.

## 6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

The LCS analysis exhibited recoveries within the control limits.

## 7. Serial Dilution

The serial dilution analysis is used to assess if a significant physical or chemical interference exists due to sample matrix. Analytes exhibiting concentrations greater than 50 times the MDL in the undiluted sample are evaluated to determine if matrix interference exists. These analytes are required to have less than a 10% difference (%D) between sample results from the undiluted (parent) sample and results associated with the same sample analyzed with a five-fold dilution.

All serial dilutions were within control limits, with the exception of the analytes presented in the following table. The sample locations associated with the deviant %D are also presented in the following table.

Sample Locations	Analytes	Serial Dilution (%D)
LMCU-SS-12	Lead	201%

The criteria used to evaluate the serial dilution are presented in the following table. In the case of a serial dilution deviation, the sample results are qualified. The qualifications are applied to all soil sample results associated with this SDG.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

## 8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Note: The laboratory documented in the case narrative that the laboratory report was revised to provide total lead results for sample LMCU-SS-15. The original results provided were unexpectedly elevated. Per request from Arcadis personnel the original results were reviewed. Since no errors were detected the sample was re-analyzed. The re-analyzed results were more in line with the MS and MSD recoveries and were shown to be re-producible. The originally reported lead results for sample LMCU-SS-15 are likely elevated as a result of sample non-homogeneity of sample matrix.

Both the original and re-analyzed results are included within this report.



## DATA VALIDATION CHECKLIST FOR METAL

METALS: SW-846 6000	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP)					
<b>Tier II Validation</b>					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Instrument Blanks		X		X	
B. Method Blanks		X	X		
C. Equipment/Field Blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
ICP Serial Dilution		X	X		
Reporting Limit Verification		X		X	
Raw Data		X		X	
<b>Tier III Validation</b>					
Initial Calibration Verification		X		X	
Continuing Calibration Verification		X		X	
CRDL Standard		X		X	
ICP Interference Check		X		X	
Transcription/calculation errors present		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%R Percent recovery

RPD Relative percent difference

## GENERAL CHEMISTRY ANALYSES

### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Cyanide, Total by SW-846 9012B	Soil	14 days from collection to analysis	Cool to <6 °C.
	Water		Cool to <6 °C; preserved to a pH of greater than 12.
Hexavalent Chromium by SW-846 3060A/7196A	Solid	30 days from collection to extraction and 7 days from extraction to analysis	Cool to <6 °C.
	Water	24 hours from collection to analysis	Cool to <6 °C.

All samples were analyzed within the specified holding times.

### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

### 3. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within control limits.

All calibration standard recoveries were within the control limit.

#### 4. Matrix Spike/ Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

##### 4.1 MS/MSD Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory qualifier "N" will be removed.

The MS/MSD analysis performed on sample locations FB-20131011, LMCU-SS-12 and LMCU-SS-15 exhibited recoveries within the control limits.

##### 4.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the CRDL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the CRDL, a control limit of one times the CRDL is applied for water matrices and two times the CRDL for soil matrices.

The laboratory duplicate sample results exhibited RPD within the control limit.

#### 5. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
LMCU-SS-6/DUP-1-20131011	Cyanide, Total	1.1 U	1.0 U	AC
	Hexavalent Chromium	0.33 J	0.11 J	AC
LMCU-SS-19/DUP-2-20131011	Cyanide, Total	1.1 U	1.2 U	AC
	Hexavalent Chromium	0.42 J	0.5 U	AC

AC Acceptable  
U Not detected

The calculated RPDs between the parent sample and field duplicate were acceptable.

#### 6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

The LCS analysis exhibited recoveries within the control limits.

## **7. System Performance and Overall Assessment**

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

## DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: 9012B and 7196A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
<b>Tier II Validation</b>					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Laboratory Control Sample Duplicate(LCSD) %R					X
LCS/LCSD Precision (RPD)					X
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate(MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content		X		X	
<b>Tier III Validation</b>					
Initial calibration %RSD or correlation coefficient		X		X	
Continuing calibration %R		X		X	
Raw Data					
Transcription/calculation errors present		X		X	
Reporting limits adjusted to reflect sample dilutions		X		X	

%RSD – relative standard deviation, %R - percent recovery, RPD - relative percent difference, %D – difference

## SAMPLE COMPLIANCE REPORT

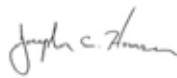
Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliance <sup>1</sup>					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-47844-1	10/11/2013	SW-846	FB-20131011	Water	No	--	Yes	Yes	Yes	VOC – CCAL %D
480-47844-1	10/10/2013	SW-846	LMCU-SS-17	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/10/2013	SW-846	LMCU-SS-13	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/10/2013	SW-846	LMCU-SS-18	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/10/2013	SW-846	LMCU-SS-11	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/10/2013	SW-846	LMCU-SS-14	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/10/2013	SW-846	LMCU-SS-28	Soil	No	--	No	No	Yes	VOC – CCAL %D, Holding time PCB – % Column difference MET – Serial dilution
480-47844-1	10/11/2013	SW-846	DUP-1-20131011	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/11/2013	SW-846	TRIP BLANK-20131011	Water	No	--	--	--	--	VOC – CCAL %D
480-47844-1	10/11/2013	SW-846	DUP-2-20131011	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/10/2013	SW-846	LMCU-SS-9	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/10/2013	SW-846	LMCU-SS-8	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/10/2013	SW-846	LMCU-SS-7	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/10/2013	SW-846	LMCU-SS-4	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/10/2013	SW-846	LMCU-SS-2	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/10/2013	SW-846	LMCU-SS-1	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution

Sample Delivery Group (SDG)	Sampling Date	Protocol	Sample ID	Matrix	Compliance <sup>1</sup>					Noncompliance
					VOC	SVOC	PCB	MET	MISC	
480-47844-1	10/10/2013	SW-846	LMCU-SS-3	Soil	No	--	Yes	No	Yes	VOC – CCAL %D, Holding time MET – Serial dilution
480-47844-1	10/11/2013	SW-846	LMCU-SS-6	Soil	Yes	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/11/2013	SW-846	LMCU-SS-5	Soil	Yes	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/11/2013	SW-846	LMCU-SS-12	Soil	No	--	Yes	No	Yes	VOC – MS/MSD %Recovery MET – Serial dilution
480-47844-1	10/11/2013	SW-846	LMCU-SS-19	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/11/2013	SW-846	LMCU-SS-16	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution
480-47844-1	10/11/2013	SW-846	LMCU-SS-15	Soil	No	--	No	No	Yes	VOC – CCAL %D, MS/MSD %Recovery PCB – % Column difference MET – Serial dilution
480-47844-1	10/10/2013	SW-846	LMCU-SS-10	Soil	No	--	Yes	No	Yes	VOC – CCAL %D MET – Serial dilution

1 Samples which are compliant with no added validation qualifiers are listed as "yes". Samples which are non-compliant or which have added qualifiers are listed as "no". A "no" designation does not necessarily indicate that the data have been rejected or are otherwise unusable.

VALIDATION PERFORMED BY: Joseph C. Houser

SIGNATURE:



DATE: November 26, 2013

PEER REVIEW BY: Dennis Capria

DATE: November 27, 2013



**CHAIN OF CUSTODY/  
CORRECTED SAMPLE ANALYSIS DATA SHEETS**

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: FB

Lab Sample ID: 480-47844-1FB

Date Sampled: 10/11/2013 1600

Client Matrix: Water

Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-146452	Instrument ID:	HP5973C
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C33382.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/22/2013 0421			Final Weight/Volume:	5 mL
Prep Date:	10/22/2013 0421				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND	U	0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
1,2-Dibromoethane	ND		0.73	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: FB

Lab Sample ID: 480-47844-1FB

Client Matrix: Water

Date Sampled: 10/11/2013 1600

Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C                      Analysis Batch: 480-146452                      Instrument ID: HP5973C  
Prep Method: 5030C                      Prep Batch: N/A                      Lab File ID: C33382.D  
Dilution: 1.0                      Initial Weight/Volume: 5 mL  
Analysis Date: 10/22/2013 0421                      Final Weight/Volume: 5 mL  
Prep Date: 10/22/2013 0421

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	95		71 - 126
1,2-Dichloroethane-d4 (Surr)	111		66 - 137
4-Bromofluorobenzene (Surr)	100		73 - 120

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: TB

Lab Sample ID: 480-47844-2TB

Date Sampled: 10/11/2013 0000

Client Matrix: Water

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-146452	Instrument ID: HP5973C	
Prep Method: 5030C	Prep Batch: N/A	Lab File ID: C33383.D	
Dilution: 1.0		Initial Weight/Volume: 5 mL	
Analysis Date: 10/22/2013 0446		Final Weight/Volume: 5 mL	
Prep Date: 10/22/2013 0446			

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Dibromochloromethane	ND		0.32	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND	u	0.18	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
1,2-Dibromoethane	ND		0.73	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: TB  
Lab Sample ID: 480-47844-2TB  
Client Matrix: Water

Date Sampled: 10/11/2013 0000  
Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C      Analysis Batch: 480-146452      Instrument ID: HP5973C  
Prep Method: 5030C      Prep Batch: N/A      Lab File ID: C33383.D  
Dilution: 1.0      Initial Weight/Volume: 5 mL  
Analysis Date: 10/22/2013 0446      Final Weight/Volume: 5 mL  
Prep Date: 10/22/2013 0446

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	96		71 - 126
1,2-Dichloroethane-d4 (Surr)	111		66 - 137
4-Bromofluorobenzene (Surr)	98		73 - 120

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-6

Lab Sample ID: 480-47844-3

Client Matrix: Solid

% Moisture: 11.7

Date Sampled: 10/11/2013 1145

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-146925	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-146484	Lab File ID: F2674.D	
Dilution: 1.0		Initial Weight/Volume: 5.99 g	
Analysis Date: 10/23/2013 1907		Final Weight/Volume: 5 g	
Prep Date: 10/22/2013 0235			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.34	4.7
1,1,2,2-Tetrachloroethane		ND		0.77	4.7
1,1,2-Trichloroethane		ND		0.61	4.7
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.1	4.7
1,1-Dichloroethane		ND		0.58	4.7
1,1-Dichloroethene		ND		0.58	4.7
1,2,4-Trichlorobenzene		ND		0.29	4.7
1,2-Dibromo-3-Chloropropane		ND		2.4	4.7
1,2-Dichlorobenzene		ND		0.37	4.7
1,2-Dichloroethane		ND		0.24	4.7
1,2-Dichloropropane		ND		2.4	4.7
1,3-Dichlorobenzene		ND		0.24	4.7
1,4-Dichlorobenzene		ND		0.66	4.7
2-Butanone (MEK)		ND		1.7	24
2-Hexanone		ND		2.4	24
4-Methyl-2-pentanone (MIBK)		ND		1.6	24
Acetone		ND		4.0	24
Benzene		ND		0.23	4.7
Bromodichloromethane		ND		0.63	4.7
Bromoform		ND		2.4	4.7
Bromomethane		ND		0.43	4.7
Carbon disulfide		ND		2.4	4.7
Carbon tetrachloride		ND		0.46	4.7
Chlorobenzene		ND		0.62	4.7
Dibromochloromethane		ND		0.61	4.7
Chloroethane		ND		1.1	4.7
Chloroform		ND		0.29	4.7
Chloromethane		ND		0.29	4.7
cis-1,2-Dichloroethene		ND		0.61	4.7
cis-1,3-Dichloropropene		ND		0.68	4.7
Cyclohexane		ND		0.66	4.7
Dichlorodifluoromethane		ND		0.39	4.7
Ethylbenzene	0.40		J	0.33	4.7
1,2-Dibromoethane		ND		0.61	4.7
Isopropylbenzene		ND		0.71	4.7
Methyl acetate		ND		0.88	4.7
Methyl tert-butyl ether		ND		0.46	4.7
Methylcyclohexane		ND		0.72	4.7
Methylene Chloride		ND		2.2	4.7
Styrene		ND		0.24	4.7
Tetrachloroethene		ND		0.63	4.7
Toluene		ND		0.36	4.7
trans-1,2-Dichloroethene		ND		0.49	4.7
trans-1,3-Dichloropropene		ND		2.1	4.7
Trichloroethene		ND		1.0	4.7
Trichlorofluoromethane		ND		0.45	4.7

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-6

Lab Sample ID: 480-47844-3

Date Sampled: 10/11/2013 1145

Client Matrix: Solid

% Moisture: 11.7

Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C      Analysis Batch: 480-146925      Instrument ID: HP5973F  
Prep Method: 5035      Prep Batch: 480-146484      Lab File ID: F2674.D  
Dilution: 1.0      Initial Weight/Volume: 5.99 g  
Analysis Date: 10/23/2013 1907      Final Weight/Volume: 5 g  
Prep Date: 10/22/2013 0235

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.58	4.7
Xylenes, Total		1.9	J	0.79	9.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	103		71 - 125
1,2-Dichloroethane-d4 (Surr)	100		64 - 126
4-Bromofluorobenzene (Surr)	110		72 - 126

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-5

Lab Sample ID: 480-47844-4

Date Sampled: 10/11/2013 1230

Client Matrix: Solid

% Moisture: 26.8

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-146925	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-146484	Lab File ID: F2675.D	
Dilution: 1.0		Initial Weight/Volume: 6.73 g	
Analysis Date: 10/23/2013 1933		Final Weight/Volume: 5 g	
Prep Date: 10/22/2013 0235			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.37	5.1
1,1,2,2-Tetrachloroethane		ND		0.82	5.1
1,1,2-Trichloroethane		ND		0.66	5.1
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.2	5.1
1,1-Dichloroethane		ND		0.62	5.1
1,1-Dichloroethene		ND		0.62	5.1
1,2,4-Trichlorobenzene		ND		0.31	5.1
1,2-Dibromo-3-Chloropropane		ND		2.5	5.1
1,2-Dichlorobenzene		ND		0.40	5.1
1,2-Dichloroethane		ND		0.25	5.1
1,2-Dichloropropane		ND		2.5	5.1
1,3-Dichlorobenzene		ND		0.26	5.1
1,4-Dichlorobenzene		ND		0.71	5.1
2-Butanone (MEK)		ND		1.9	25
2-Hexanone		ND		2.5	25
4-Methyl-2-pentanone (MIBK)		ND		1.7	25
Acetone		ND		4.3	25
Benzene		ND		0.25	5.1
Bromodichloromethane		ND		0.68	5.1
Bromoform		ND		2.5	5.1
Bromomethane		ND		0.46	5.1
Carbon disulfide		ND		2.5	5.1
Carbon tetrachloride		ND		0.49	5.1
Chlorobenzene		ND		0.67	5.1
Dibromochloromethane		ND		0.65	5.1
Chloroethane		ND		1.1	5.1
Chloroform		ND		0.31	5.1
Chloromethane		ND		0.31	5.1
cis-1,2-Dichloroethene		ND		0.65	5.1
cis-1,3-Dichloropropene		ND		0.73	5.1
Cyclohexane		ND		0.71	5.1
Dichlorodifluoromethane		ND		0.42	5.1
Ethylbenzene		0.39	J	0.35	5.1
1,2-Dibromoethane		ND		0.65	5.1
Isopropylbenzene		ND		0.76	5.1
Methyl acetate		ND		0.94	5.1
Methyl tert-butyl ether		ND		0.50	5.1
Methylcyclohexane		ND		0.77	5.1
Methylene Chloride		ND		2.3	5.1
Styrene		ND		0.25	5.1
Tetrachloroethene		ND		0.68	5.1
Toluene		ND		0.38	5.1
trans-1,2-Dichloroethene		ND		0.52	5.1
trans-1,3-Dichloropropene		ND		2.2	5.1
Trichloroethene		ND		1.1	5.1
Trichlorofluoromethane		ND		0.48	5.1



Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-5

Lab Sample ID: 480-47844-4

Date Sampled: 10/11/2013 1230

Client Matrix: Solid

% Moisture: 26.8

Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-146925	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2675.D
Dilution:	1.0			Initial Weight/Volume:	6.73 g
Analysis Date:	10/23/2013 1933			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.62	5.1
Xylenes, Total		1.9	J	0.85	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	104		71 - 125
1,2-Dichloroethane-d4 (Surr)	102		64 - 126
4-Bromofluorobenzene (Surr)	110		72 - 126

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-12

Lab Sample ID: 480-47844-5

Date Sampled: 10/11/2013 1420

Client Matrix: Solid

% Moisture: 9.4

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-146925	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2676.D
Dilution:	1.0			Initial Weight/Volume:	5.57 g
Analysis Date:	10/23/2013 1958			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.36	5.0
1,1,2,2-Tetrachloroethane		ND		0.80	5.0
1,1,2-Trichloroethane		ND		0.64	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.1	5.0
1,1-Dichloroethane		ND		0.60	5.0
1,1-Dichloroethene		ND		0.61	5.0
1,2,4-Trichlorobenzene		ND		0.30	5.0
1,2-Dibromo-3-Chloropropane		ND		2.5	5.0
1,2-Dichlorobenzene		ND	UJ	0.39	5.0
1,2-Dichloroethane		ND	UJ	0.25	5.0
1,2-Dichloropropane		ND		2.5	5.0
1,3-Dichlorobenzene		ND		0.25	5.0
1,4-Dichlorobenzene		ND		0.69	5.0
2-Butanone (MEK)		ND		1.8	25
2-Hexanone		ND		2.5	25
4-Methyl-2-pentanone (MIBK)		ND		1.6	25
Acetone		ND		4.2	25
Benzene		ND		0.24	5.0
Bromodichloromethane		ND		0.66	5.0
Bromoform		ND		2.5	5.0
Bromomethane		ND		0.45	5.0
Carbon disulfide		ND		2.5	5.0
Carbon tetrachloride		ND		0.48	5.0
Chlorobenzene		ND	UJ	0.65	5.0
Dibromochloromethane		ND		0.63	5.0
Chloroethane		ND		1.1	5.0
Chloroform		ND		0.31	5.0
Chloromethane		ND		0.30	5.0
cis-1,2-Dichloroethene		ND	UJ	0.63	5.0
cis-1,3-Dichloropropene		ND		0.71	5.0
Cyclohexane		ND		0.69	5.0
Dichlorodifluoromethane		ND		0.41	5.0
Ethylbenzene		ND	UJ	0.34	5.0
1,2-Dibromoethane		ND		0.64	5.0
Isopropylbenzene		ND		0.75	5.0
Methyl acetate		ND		0.92	5.0
Methyl tert-butyl ether		ND		0.49	5.0
Methylcyclohexane		ND		0.75	5.0
Methylene Chloride		ND		2.3	5.0
Styrene		ND		0.25	5.0
Tetrachloroethene		ND		0.66	5.0
Toluene		ND		0.37	5.0
trans-1,2-Dichloroethene		ND		0.51	5.0
trans-1,3-Dichloropropene		ND		2.2	5.0
Trichloroethene		ND	UJ	1.1	5.0
Trichlorofluoromethane		ND		0.47	5.0

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-12

Lab Sample ID: 480-47844-5

Date Sampled: 10/11/2013 1420

Client Matrix: Solid

% Moisture: 9.4

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-146925	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2676.D
Dilution:	1.0			Initial Weight/Volume:	5.57 g
Analysis Date:	10/23/2013 1958			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.60	5.0
Xylenes, Total		1.5	J	0.83	9.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	103		71 - 125
1,2-Dichloroethane-d4 (Surr)	101		64 - 126
4-Bromofluorobenzene (Surr)	108		72 - 126

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-19

Lab Sample ID: 480-47844-6

Date Sampled: 10/11/2013 1520

Client Matrix: Solid

% Moisture: 16.4

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-147088	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-146484	Lab File ID: F2690.D	
Dilution: 1.0		Initial Weight/Volume: 5.73 g	
Analysis Date: 10/24/2013 0233		Final Weight/Volume: 5 g	
Prep Date: 10/22/2013 0235			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.38	5.2
1,1,2,2-Tetrachloroethane		ND		0.85	5.2
1,1,2-Trichloroethane		ND		0.68	5.2
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.2	5.2
1,1-Dichloroethane		ND		0.64	5.2
1,1-Dichloroethene		ND		0.64	5.2
1,2,4-Trichlorobenzene		ND		0.32	5.2
1,2-Dibromo-3-Chloropropane		ND		2.6	5.2
1,2-Dichlorobenzene		ND		0.41	5.2
1,2-Dichloroethane		ND		0.26	5.2
1,2-Dichloropropane		ND		2.6	5.2
1,3-Dichlorobenzene		ND		0.27	5.2
1,4-Dichlorobenzene		ND		0.73	5.2
2-Butanone (MEK)		ND		1.9	26
2-Hexanone		ND		2.6	26
4-Methyl-2-pentanone (MIBK)		ND		1.7	26
Acetone		ND		4.4	26
Benzene		ND		0.26	5.2
Bromodichloromethane		ND		0.70	5.2
Bromoform		ND		2.6	5.2
Bromomethane		ND		0.47	5.2
Carbon disulfide		ND		2.6	5.2
Carbon tetrachloride		ND		0.51	5.2
Chlorobenzene		ND		0.69	5.2
Dibromochloromethane		ND		0.67	5.2
Chloroethane		ND		1.2	5.2
Chloroform		ND		0.32	5.2
Chloromethane		ND		0.32	5.2
cis-1,2-Dichloroethene		ND		0.67	5.2
cis-1,3-Dichloropropene		ND		0.75	5.2
Cyclohexane		ND		0.73	5.2
Dichlorodifluoromethane		ND		0.43	5.2
Ethylbenzene		ND		0.36	5.2
1,2-Dibromoethane		ND		0.67	5.2
Isopropylbenzene		ND		0.79	5.2
Methyl acetate		ND		0.97	5.2
Methyl tert-butyl ether		ND		0.51	5.2
Methylcyclohexane		ND		0.79	5.2
Methylene Chloride		ND		2.4	5.2
Styrene		ND		0.26	5.2
Tetrachloroethene		ND		0.70	5.2
Toluene		ND		0.39	5.2
trans-1,2-Dichloroethene		ND		0.54	5.2
trans-1,3-Dichloropropene		ND		2.3	5.2
Trichloroethene		ND		1.1	5.2
Trichlorofluoromethane		ND		0.49	5.2

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-19

Lab Sample ID: 480-47844-6

Date Sampled: 10/11/2013 1520

Client Matrix: Solid

% Moisture: 16.4

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2690.D
Dilution:	1.0			Initial Weight/Volume:	5.73 g
Analysis Date:	10/24/2013 0233			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.64	5.2
Xylenes, Total		ND		0.88	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	109		71 - 125
1,2-Dichloroethane-d4 (Surr)	99		64 - 126
4-Bromofluorobenzene (Surr)	109		72 - 126

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-16

Lab Sample ID: 480-47844-7

Date Sampled: 10/11/2013 1000

Client Matrix: Solid

% Moisture: 11.7

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-147088	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-146484	Lab File ID: F2691.D	
Dilution: 1.0		Initial Weight/Volume: 6.85 g	
Analysis Date: 10/24/2013 0259		Final Weight/Volume: 5 g	
Prep Date: 10/22/2013 0235			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.30	4.1
1,1,2,2-Tetrachloroethane		ND		0.67	4.1
1,1,2-Trichloroethane		ND		0.54	4.1
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.94	4.1
1,1-Dichloroethane		ND		0.50	4.1
1,1-Dichloroethene		ND		0.51	4.1
1,2,4-Trichlorobenzene		ND		0.25	4.1
1,2-Dibromo-3-Chloropropane		ND		2.1	4.1
1,2-Dichlorobenzene		ND		0.32	4.1
1,2-Dichloroethane		ND		0.21	4.1
1,2-Dichloropropane		ND		2.1	4.1
1,3-Dichlorobenzene		ND		0.21	4.1
1,4-Dichlorobenzene		ND		0.58	4.1
2-Butanone (MEK)		ND		1.5	21
2-Hexanone		ND		2.1	21
4-Methyl-2-pentanone (MIBK)		ND		1.4	21
Acetone		4.5		3.5	21
Benzene		ND		0.20	4.1
Bromodichloromethane		ND		0.55	4.1
Bromoform		ND		2.1	4.1
Bromomethane		ND		0.37	4.1
Carbon disulfide		ND		2.1	4.1
Carbon tetrachloride		ND		0.40	4.1
Chlorobenzene		ND		0.55	4.1
Dibromochloromethane		ND		0.53	4.1
Chloroethane		ND		0.93	4.1
Chloroform		ND		0.26	4.1
Chloromethane		ND		0.25	4.1
cis-1,2-Dichloroethene		ND		0.53	4.1
cis-1,3-Dichloropropene		ND		0.59	4.1
Cyclohexane		ND		0.58	4.1
Dichlorodifluoromethane		ND		0.34	4.1
Ethylbenzene		ND		0.29	4.1
1,2-Dibromoethane		ND		0.53	4.1
Isopropylbenzene		ND		0.62	4.1
Methyl acetate		ND		0.77	4.1
Methyl tert-butyl ether		ND		0.41	4.1
Methylcyclohexane		ND		0.63	4.1
Methylene Chloride		ND		1.9	4.1
Styrene		ND		0.21	4.1
Tetrachloroethene		ND		0.55	4.1
Toluene		ND		0.31	4.1
trans-1,2-Dichloroethene		ND		0.43	4.1
trans-1,3-Dichloropropene		ND		1.8	4.1
Trichloroethene		ND		0.91	4.1
Trichlorofluoromethane		ND		0.39	4.1

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-16

Lab Sample ID: 480-47844-7

Date Sampled: 10/11/2013 1000

Client Matrix: Solid

% Moisture: 11.7

Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C      Analysis Batch: 480-147088      Instrument ID: HP5973F  
Prep Method: 5035      Prep Batch: 480-146484      Lab File ID: F2691.D  
Dilution: 1.0      Initial Weight/Volume: 6.85 g  
Analysis Date: 10/24/2013 0259      Final Weight/Volume: 5 g  
Prep Date: 10/22/2013 0235

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.50	4.1
Xylenes, Total		ND		0.69	8.3

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	105		71 - 125
1,2-Dichloroethane-d4 (Surr)	108		64 - 126
4-Bromofluorobenzene (Surr)	113		72 - 126

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-15

Lab Sample ID: 480-47844-8

Date Sampled: 10/11/2013 1120

Client Matrix: Solid

% Moisture: 19.4

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-147088	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-146484	Lab File ID: F2692.D	
Dilution: 1.0		Initial Weight/Volume: 5.03 g	
Analysis Date: 10/24/2013 0324		Final Weight/Volume: 5 g	
Prep Date: 10/22/2013 0235			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.45	6.2
1,1,2,2-Tetrachloroethane		ND		1.0	6.2
1,1,2-Trichloroethane		ND		0.80	6.2
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.4	6.2
1,1-Dichloroethane		ND		0.75	6.2
1,1-Dichloroethene		ND		0.75	6.2
1,2,4-Trichlorobenzene		ND		0.37	6.2
1,2-Dibromo-3-Chloropropane		ND		3.1	6.2
1,2-Dichlorobenzene		ND	UJ	0.48	6.2
1,2-Dichloroethane		ND		0.31	6.2
1,2-Dichloropropane		ND		3.1	6.2
1,3-Dichlorobenzene		ND		0.32	6.2
1,4-Dichlorobenzene		ND		0.86	6.2
2-Butanone (MEK)		ND		2.3	31
2-Hexanone		ND		3.1	31
4-Methyl-2-pentanone (MIBK)		ND		2.0	31
Acetone		ND		5.2	31
Benzene		ND		0.30	6.2
Bromodichloromethane		ND		0.83	6.2
Bromoform		ND	UJ	3.1	6.2
Bromomethane		ND		0.55	6.2
Carbon disulfide		ND		3.1	6.2
Carbon tetrachloride		ND		0.60	6.2
Chlorobenzene		ND		0.81	6.2
Dibromochloromethane		ND		0.79	6.2
Chloroethane		ND		1.4	6.2
Chloroform		ND		0.38	6.2
Chloromethane		ND		0.37	6.2
cis-1,2-Dichloroethene		ND		0.79	6.2
cis-1,3-Dichloropropene		ND		0.89	6.2
Cyclohexane		ND		0.86	6.2
Dichlorodifluoromethane		ND	UJ	0.51	6.2
Ethylbenzene		ND	UJ	0.43	6.2
1,2-Dibromoethane		ND		0.79	6.2
Isopropylbenzene		ND		0.93	6.2
Methyl acetate		ND		1.1	6.2
Methyl tert-butyl ether		ND		0.61	6.2
Methylcyclohexane		ND		0.94	6.2
Methylene Chloride		ND		2.8	6.2
Styrene		ND		0.31	6.2
Tetrachloroethene		ND	—	0.83	6.2
Toluene		ND		0.47	6.2
trans-1,2-Dichloroethene		ND		0.64	6.2
trans-1,3-Dichloropropene		ND		2.7	6.2
Trichloroethene		ND		1.4	6.2
Trichlorofluoromethane		ND		0.58	6.2



**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-15

Lab Sample ID: 480-47844-8

Client Matrix: Solid

% Moisture: 19.4

Date Sampled: 10/11/2013 1120

Date Received: 10/12/2013 0200

**8260C Volatile Organic Compounds by GC/MS**

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2692.D
Dilution:	1.0			Initial Weight/Volume:	5.03 g
Analysis Date:	10/24/2013 0324			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.75	6.2
Xylenes, Total		ND		1.0	12

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	107		71 - 125
1,2-Dichloroethane-d4 (Surr)	104		64 - 126
4-Bromofluorobenzene (Surr)	111		72 - 126

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-10

Lab Sample ID: 480-47844-9

Date Sampled: 10/10/2013 1750

Client Matrix: Solid

% Moisture: 12.4

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-147088	Instrument ID: HP5973F
Prep Method: 5035	Prep Batch: 480-146484	Lab File ID: F2695.D
Dilution: 1.0		Initial Weight/Volume: 4.58 g
Analysis Date: 10/24/2013 0440		Final Weight/Volume: 5 g
Prep Date: 10/22/2013 0235		

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.45	6.2
1,1,2,2-Tetrachloroethane		ND		1.0	6.2
1,1,2-Trichloroethane		ND		0.81	6.2
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.4	6.2
1,1-Dichloroethane		ND		0.76	6.2
1,1-Dichloroethene		ND		0.76	6.2
1,2,4-Trichlorobenzene		ND		0.38	6.2
1,2-Dibromo-3-Chloropropane		ND		3.1	6.2
1,2-Dichlorobenzene		ND		0.49	6.2
1,2-Dichloroethane		ND		0.31	6.2
1,2-Dichloropropane		ND		3.1	6.2
1,3-Dichlorobenzene		ND		0.32	6.2
1,4-Dichlorobenzene		ND		0.87	6.2
2-Butanone (MEK)		ND		2.3	31
2-Hexanone		ND		3.1	31
4-Methyl-2-pentanone (MIBK)		ND		2.0	31
Acetone		ND		5.2	31
Benzene		ND		0.31	6.2
Bromodichloromethane		ND		0.83	6.2
Bromoform		ND		3.1	6.2
Bromomethane		ND		0.56	6.2
Carbon disulfide		ND		3.1	6.2
Carbon tetrachloride		ND		0.60	6.2
Chlorobenzene		ND		0.82	6.2
Dibromochloromethane		ND		0.80	6.2
Chloroethane		ND		1.4	6.2
Chloroform		ND		0.39	6.2
Chloromethane		ND		0.38	6.2
cis-1,2-Dichloroethene		ND		0.80	6.2
cis-1,3-Dichloropropene		ND		0.90	6.2
Cyclohexane		ND		0.87	6.2
Dichlorodifluoromethane		ND		0.51	6.2
Ethylbenzene		ND		0.43	6.2
1,2-Dibromoethane		ND		0.80	6.2
Isopropylbenzene		ND		0.94	6.2
Methyl acetate		ND		1.2	6.2
Methyl tert-butyl ether		ND		0.61	6.2
Methylcyclohexane		ND		0.95	6.2
Methylene Chloride		ND		2.9	6.2
Styrene		ND		0.31	6.2
Tetrachloroethene		ND		0.84	6.2
Toluene		ND		0.47	6.2
trans-1,2-Dichloroethene		ND		0.64	6.2
trans-1,3-Dichloropropene		ND		2.7	6.2
Trichloroethene		ND		1.4	6.2
Trichlorofluoromethane		ND		0.59	6.2

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-10

Lab Sample ID: 480-47844-9

Date Sampled: 10/10/2013 1750

Client Matrix: Solid

% Moisture: 12.4

Date Received: 10/12/2013 0200

**8260C Volatile Organic Compounds by GC/MS**

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2695.D
Dilution:	1.0			Initial Weight/Volume:	4.58 g
Analysis Date:	10/24/2013 0440			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.76	6.2
Xylenes, Total		ND		1.0	12

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	106		71 - 125
1,2-Dichloroethane-d4 (Surr)	101		64 - 126
4-Bromofluorobenzene (Surr)	110		72 - 126

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-17

Lab Sample ID: 480-47844-10

Date Sampled: 10/10/2013 1650

Client Matrix: Solid

% Moisture: 12.0

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-147088	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-146484	Lab File ID: F2696.D	
Dilution: 1.0		Initial Weight/Volume: 8.37 g	
Analysis Date: 10/24/2013 0506		Final Weight/Volume: 5 g	
Prep Date: 10/22/2013 0235			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.25	3.4
1,1,2,2-Tetrachloroethane		ND		0.55	3.4
1,1,2-Trichloroethane		ND		0.44	3.4
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.77	3.4
1,1-Dichloroethane		ND		0.41	3.4
1,1-Dichloroethene		ND		0.42	3.4
1,2,4-Trichlorobenzene		ND		0.21	3.4
1,2-Dibromo-3-Chloropropane		ND		1.7	3.4
1,2-Dichlorobenzene		ND		0.27	3.4
1,2-Dichloroethane		ND		0.17	3.4
1,2-Dichloropropane		ND		1.7	3.4
1,3-Dichlorobenzene		ND		0.17	3.4
1,4-Dichlorobenzene		ND		0.48	3.4
2-Butanone (MEK)		ND		1.2	17
2-Hexanone		ND		1.7	17
4-Methyl-2-pentanone (MIBK)		ND		1.1	17
Acetone		22		2.9	17
Benzene		ND		0.17	3.4
Bromodichloromethane		ND		0.45	3.4
Bromoform		ND	5	1.7	3.4
Bromomethane		ND		0.31	3.4
Carbon disulfide		ND		1.7	3.4
Carbon tetrachloride		ND		0.33	3.4
Chlorobenzene		ND		0.45	3.4
Dibromochloromethane		ND		0.43	3.4
Chloroethane		ND		0.77	3.4
Chloroform		ND		0.21	3.4
Chloromethane		ND		0.21	3.4
cis-1,2-Dichloroethene		ND		0.43	3.4
cis-1,3-Dichloropropene		ND		0.49	3.4
Cyclohexane		ND		0.48	3.4
Dichlorodifluoromethane		ND		0.28	3.4
Ethylbenzene		ND		0.23	3.4
1,2-Dibromoethane		ND		0.44	3.4
Isopropylbenzene		ND		0.51	3.4
Methyl acetate		ND		0.63	3.4
Methyl tert-butyl ether		ND		0.33	3.4
Methylcyclohexane		ND		0.52	3.4
Methylene Chloride		ND		1.6	3.4
Styrene		ND		0.17	3.4
Tetrachloroethene		ND	1	0.46	3.4
Toluene		ND		0.26	3.4
trans-1,2-Dichloroethene		ND		0.35	3.4
trans-1,3-Dichloropropene		ND		1.5	3.4
Trichloroethene		ND		0.75	3.4
Trichlorofluoromethane		ND		0.32	3.4

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-17

Lab Sample ID: 480-47844-10

Client Matrix: Solid

% Moisture: 12.0

Date Sampled: 10/10/2013 1650

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2696.D
Dilution:	1.0			Initial Weight/Volume:	8.37 g
Analysis Date:	10/24/2013 0506			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.41	3.4
Xylenes, Total		ND		0.57	6.8

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	105		71 - 125
1,2-Dichloroethane-d4 (Surr)	106		64 - 126
4-Bromofluorobenzene (Surr)	111		72 - 126

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-13

Lab Sample ID: 480-47844-11

Date Sampled: 10/10/2013 1714

Client Matrix: Solid

% Moisture: 11.1

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-147088	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-146484	Lab File ID: F2697.D	
Dilution: 1.0		Initial Weight/Volume: 8 g	
Analysis Date: 10/24/2013 0531		Final Weight/Volume: 5 g	
Prep Date: 10/22/2013 0235			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.26	3.5
1,1,1,2-Tetrachloroethane		ND		0.57	3.5
1,1,2-Trichloroethane		ND		0.46	3.5
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.80	3.5
1,1-Dichloroethane		ND		0.43	3.5
1,1-Dichloroethene		ND		0.43	3.5
1,2,4-Trichlorobenzene		ND		0.21	3.5
1,2-Dibromo-3-Chloropropane		ND		1.8	3.5
1,2-Dichlorobenzene		ND		0.27	3.5
1,2-Dichloroethane		ND		0.18	3.5
1,2-Dichloropropane		ND		1.8	3.5
1,3-Dichlorobenzene		ND		0.18	3.5
1,4-Dichlorobenzene		ND		0.49	3.5
2-Butanone (MEK)		ND		1.3	18
2-Hexanone		ND		1.8	18
4-Methyl-2-pentanone (MIBK)		ND		1.2	18
Acetone		ND		3.0	18
Benzene		ND		0.17	3.5
Bromodichloromethane		ND		0.47	3.5
Bromoform		ND		1.8	3.5
Bromomethane		ND		0.32	3.5
Carbon disulfide		ND		1.8	3.5
Carbon tetrachloride		ND		0.34	3.5
Chlorobenzene		ND		0.46	3.5
Dibromochloromethane		ND		0.45	3.5
Chloroethane		ND		0.79	3.5
Chloroform		ND		0.22	3.5
Chloromethane		ND		0.21	3.5
cis-1,2-Dichloroethene		ND		0.45	3.5
cis-1,3-Dichloropropene		ND		0.51	3.5
Cyclohexane		ND		0.49	3.5
Dichlorodifluoromethane		ND		0.29	3.5
Ethylbenzene		ND		0.24	3.5
1,2-Dibromoethane		ND		0.45	3.5
Isopropylbenzene		ND		0.53	3.5
Methyl acetate		ND		0.65	3.5
Methyl tert-butyl ether		ND		0.35	3.5
Methylcyclohexane		ND		0.53	3.5
Methylene Chloride		ND		1.6	3.5
Styrene		ND		0.18	3.5
Tetrachloroethene		ND		0.47	3.5
Toluene		ND		0.27	3.5
trans-1,2-Dichloroethene		ND		0.36	3.5
trans-1,3-Dichloropropene		ND		1.5	3.5
Trichloroethene		ND		0.77	3.5
Trichlorofluoromethane		ND		0.33	3.5

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-13

Lab Sample ID: 480-47844-11

Date Sampled: 10/10/2013 1714

Client Matrix: Solid

% Moisture: 11.1

Date Received: 10/12/2013 0200

**8260C Volatile Organic Compounds by GC/MS**

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2697.D
Dilution:	1.0			Initial Weight/Volume:	8 g
Analysis Date:	10/24/2013 0531			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.43	3.5
Xylenes, Total		ND		0.59	7.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	106		71 - 125
1,2-Dichloroethane-d4 (Surr)	105		64 - 126
4-Bromofluorobenzene (Surr)	109		72 - 126

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-18

Lab Sample ID: 480-47844-13

Date Sampled: 10/10/2013 0950

Client Matrix: Solid

% Moisture: 4.3

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-147088	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-146484	Lab File ID: F2698.D	
Dilution: 1.0		Initial Weight/Volume: 6.07 g	
Analysis Date: 10/24/2013 0557		Final Weight/Volume: 5 g	
Prep Date: 10/22/2013 0235			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.31	4.3
1,1,2,2-Tetrachloroethane		ND		0.70	4.3
1,1,2-Trichloroethane		ND		0.56	4.3
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.98	4.3
1,1-Dichloroethane		ND		0.52	4.3
1,1-Dichloroethene		ND		0.53	4.3
1,2,4-Trichlorobenzene		ND		0.26	4.3
1,2-Dibromo-3-Chloropropane		ND		2.2	4.3
1,2-Dichlorobenzene		ND		0.34	4.3
1,2-Dichloroethane		ND		0.22	4.3
1,2-Dichloropropane		ND		2.2	4.3
1,3-Dichlorobenzene		ND		0.22	4.3
1,4-Dichlorobenzene		ND		0.60	4.3
2-Butanone (MEK)		ND		1.6	22
2-Hexanone		ND		2.2	22
4-Methyl-2-pentanone (MIBK)		ND		1.4	22
Acetone		ND		3.6	22
Benzene		ND		0.21	4.3
Bromodichloromethane		ND		0.58	4.3
Bromoform		ND	UJ	2.2	4.3
Bromomethane		ND		0.39	4.3
Carbon disulfide		ND		2.2	4.3
Carbon tetrachloride		ND		0.42	4.3
Chlorobenzene		ND		0.57	4.3
Dibromochloromethane		ND		0.55	4.3
Chloroethane		ND		0.97	4.3
Chloroform		ND		0.27	4.3
Chloromethane		ND		0.26	4.3
cis-1,2-Dichloroethene		ND		0.55	4.3
cis-1,3-Dichloropropene		ND		0.62	4.3
Cyclohexane		ND		0.60	4.3
Dichlorodifluoromethane		ND		0.36	4.3
Ethylbenzene		ND		0.30	4.3
1,2-Dibromoethane		ND		0.55	4.3
Isopropylbenzene		ND		0.65	4.3
Methyl acetate		ND		0.80	4.3
Methyl tert-butyl ether		ND		0.42	4.3
Methylcyclohexane		ND		0.65	4.3
Methylene Chloride		ND		2.0	4.3
Styrene		ND		0.22	4.3
Tetrachloroethene		ND		0.58	4.3
Toluene		ND		0.33	4.3
trans-1,2-Dichloroethene		ND		0.44	4.3
trans-1,3-Dichloropropene		ND		1.9	4.3
Trichloroethene		ND		0.95	4.3
Trichlorofluoromethane		ND		0.41	4.3



Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-18

Lab Sample ID: 480-47844-13

Date Sampled: 10/10/2013 0950

Client Matrix: Solid

% Moisture: 4.3

Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2698.D
Dilution:	1.0			Initial Weight/Volume:	6.07 g
Analysis Date:	10/24/2013 0557			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.52	4.3
Xylenes, Total		ND		0.72	8.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	105		71 - 125
1,2-Dichloroethane-d4 (Surr)	101		64 - 126
4-Bromofluorobenzene (Surr)	109		72 - 126

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-11

Lab Sample ID: 480-47844-14

Date Sampled: 10/10/2013 1120

Client Matrix: Solid

% Moisture: 16.6

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-147088	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-146484	Lab File ID: F2699.D	
Dilution: 1.0		Initial Weight/Volume: 6.63 g	
Analysis Date: 10/24/2013 0622		Final Weight/Volume: 5 g	
Prep Date: 10/22/2013 0235			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.33	4.5
1,1,2,2-Tetrachloroethane		ND		0.73	4.5
1,1,2-Trichloroethane		ND		0.59	4.5
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.0	4.5
1,1-Dichloroethane		ND		0.55	4.5
1,1-Dichloroethene		ND		0.55	4.5
1,2,4-Trichlorobenzene		ND		0.27	4.5
1,2-Dibromo-3-Chloropropane		ND		2.3	4.5
1,2-Dichlorobenzene		ND		0.35	4.5
1,2-Dichloroethane		ND		0.23	4.5
1,2-Dichloropropane		ND		2.3	4.5
1,3-Dichlorobenzene		ND		0.23	4.5
1,4-Dichlorobenzene		ND		0.63	4.5
2-Butanone (MEK)		34		1.7	23
2-Hexanone		ND		2.3	23
4-Methyl-2-pentanone (MIBK)		ND		1.5	23
Acetone		150		3.8	23
Benzene		3.4		0.22	4.5
Bromodichloromethane		ND		0.61	4.5
Bromoform		ND		2.3	4.5
Bromomethane		ND		0.41	4.5
Carbon disulfide		ND		2.3	4.5
Carbon tetrachloride		ND		0.44	4.5
Chlorobenzene		ND		0.60	4.5
Dibromochloromethane		ND		0.58	4.5
Chloroethane		ND		1.0	4.5
Chloroform		ND		0.28	4.5
Chloromethane		ND		0.27	4.5
cis-1,2-Dichloroethene		9.6		0.58	4.5
cis-1,3-Dichloropropene		ND		0.65	4.5
Cyclohexane		1.6		0.63	4.5
Dichlorodifluoromethane		ND		0.37	4.5
Ethylbenzene		10		0.31	4.5
1,2-Dibromoethane		ND		0.58	4.5
Isopropylbenzene		ND		0.68	4.5
Methyl acetate		ND		0.84	4.5
Methyl tert-butyl ether		ND		0.44	4.5
Methylcyclohexane		5.7		0.69	4.5
Methylene Chloride		ND		2.1	4.5
Styrene		ND		0.23	4.5
Tetrachloroethene		ND		0.61	4.5
Toluene		1.6		0.34	4.5
trans-1,2-Dichloroethene		ND		0.47	4.5
trans-1,3-Dichloropropene		ND		2.0	4.5
Trichloroethene		ND		0.99	4.5
Trichlorofluoromethane		ND		0.43	4.5

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-11

Lab Sample ID: 480-47844-14

Date Sampled: 10/10/2013 1120

Client Matrix: Solid

% Moisture: 16.6

Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2699.D
Dilution:	1.0			Initial Weight/Volume:	6.63 g
Analysis Date:	10/24/2013 0622			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.55	4.5
Xylenes, Total		17		0.76	9.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	106		71 - 125
1,2-Dichloroethane-d4 (Surr)	110		64 - 126
4-Bromofluorobenzene (Surr)	111		72 - 126

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-14

Lab Sample ID: 480-47844-15

Date Sampled: 10/10/2013 1330

Client Matrix: Solid

% Moisture: 15.0

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-147088	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-146484	Lab File ID: F2700.D	
Dilution: 1.0		Initial Weight/Volume: 8.59 g	
Analysis Date: 10/24/2013 0648		Final Weight/Volume: 5 g	
Prep Date: 10/22/2013 0235			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.25	3.4
1,1,2,2-Tetrachloroethane		ND		0.56	3.4
1,1,2-Trichloroethane		ND		0.45	3.4
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.78	3.4
1,1-Dichloroethane		ND		0.42	3.4
1,1-Dichloroethene		ND		0.42	3.4
1,2,4-Trichlorobenzene		ND		0.21	3.4
1,2-Dibromo-3-Chloropropane		ND		1.7	3.4
1,2-Dichlorobenzene		ND		0.27	3.4
1,2-Dichloroethane		ND		0.17	3.4
1,2-Dichloropropane		ND		1.7	3.4
1,3-Dichlorobenzene		ND		0.18	3.4
1,4-Dichlorobenzene		ND		0.48	3.4
2-Butanone (MEK)		ND		1.3	17
2-Hexanone		ND		1.7	17
4-Methyl-2-pentanone (MIBK)		ND		1.1	17
Acetone		ND		2.9	17
Benzene		ND		0.17	3.4
Bromodichloromethane		ND		0.46	3.4
Bromoform		ND	UJ	1.7	3.4
Bromomethane		ND		0.31	3.4
Carbon disulfide		ND		1.7	3.4
Carbon tetrachloride		ND		0.33	3.4
Chlorobenzene		ND		0.45	3.4
Dibromochloromethane		ND		0.44	3.4
Chloroethane		ND		0.77	3.4
Chloroform		ND		0.21	3.4
Chloromethane		ND		0.21	3.4
cis-1,2-Dichloroethene		ND		0.44	3.4
cis-1,3-Dichloropropene		ND		0.49	3.4
Cyclohexane		ND		0.48	3.4
Dichlorodifluoromethane		ND		0.28	3.4
Ethylbenzene		ND		0.24	3.4
1,2-Dibromoethane		ND		0.44	3.4
Isopropylbenzene		ND		0.52	3.4
Methyl acetate		ND		0.64	3.4
Methyl tert-butyl ether		ND		0.34	3.4
Methylcyclohexane		ND		0.52	3.4
Methylene Chloride		ND		1.6	3.4
Styrene		ND		0.17	3.4
Tetrachloroethene		ND		0.46	3.4
Toluene		ND		0.26	3.4
trans-1,2-Dichloroethene		ND		0.35	3.4
trans-1,3-Dichloropropene		ND		1.5	3.4
Trichloroethene		ND		0.75	3.4
Trichlorofluoromethane		ND		0.32	3.4

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-14

Lab Sample ID: 480-47844-15

Date Sampled: 10/10/2013 1330

Client Matrix: Solid

% Moisture: 15.0

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2700.D
Dilution:	1.0			Initial Weight/Volume:	8.59 g
Analysis Date:	10/24/2013 0648			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.42	3.4
Xylenes, Total		ND		0.58	6.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	106		71 - 125
1,2-Dichloroethane-d4 (Surr)	105		64 - 126
4-Bromofluorobenzene (Surr)	108		72 - 126

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-28

Lab Sample ID: 480-47844-16

Date Sampled: 10/10/2013 1520

Client Matrix: Solid

% Moisture: 4.8

Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C      Analysis Batch: 480-147396      Instrument ID: HP5973F  
Prep Method: 5035      Prep Batch: 480-147411      Lab File ID: F2741.D  
Dilution: 1.0      Initial Weight/Volume: 6.63 g  
Analysis Date: 10/25/2013 0138      Final Weight/Volume: 5 g  
Prep Date: 10/24/2013 2343

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND	H U	0.29	4.0
1,1,2,2-Tetrachloroethane		ND	H	0.64	4.0
1,1,2-Trichloroethane		ND	H	0.51	4.0
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	H	0.90	4.0
1,1-Dichloroethane		ND	H	0.48	4.0
1,1-Dichloroethene		ND	H	0.48	4.0
1,2,4-Trichlorobenzene		ND	H	0.24	4.0
1,2-Dibromo-3-Chloropropane		ND	H	2.0	4.0
1,2-Dichlorobenzene		ND	H	0.31	4.0
1,2-Dichloroethane		ND	H	0.20	4.0
1,2-Dichloropropane		ND	H	2.0	4.0
1,3-Dichlorobenzene		ND	H	0.20	4.0
1,4-Dichlorobenzene		ND	H	0.55	4.0
2-Butanone (MEK)		ND	H	1.4	20
2-Hexanone		ND	H	2.0	20
4-Methyl-2-pentanone (MIBK)		ND	H	1.3	20
Acetone		ND	H	3.3	20
Benzene		ND	H	0.19	4.0
Bromodichloromethane		ND	H	0.53	4.0
Bromoform		ND	H	2.0	4.0
Bromomethane		ND	H	0.36	4.0
Carbon disulfide		ND	H	2.0	4.0
Carbon tetrachloride		ND	H	0.38	4.0
Chlorobenzene		ND	H	0.52	4.0
Dibromochloromethane		ND	H	0.51	4.0
Chloroethane		ND	H	0.89	4.0
Chloroform		ND	H	0.24	4.0
Chloromethane		ND	H	0.24	4.0
cis-1,2-Dichloroethene		ND	H	0.51	4.0
cis-1,3-Dichloropropene		ND	H	0.57	4.0
Cyclohexane		ND	H	0.55	4.0
Dichlorodifluoromethane		ND	H	0.33	4.0
Ethylbenzene		ND	H	0.27	4.0
1,2-Dibromoethane		ND	H	0.51	4.0
Isopropylbenzene		ND	H	0.60	4.0
Methyl acetate		ND	H	0.74	4.0
Methyl tert-butyl ether		ND	H	0.39	4.0
Methylcyclohexane		ND	H	0.60	4.0
Methylene Chloride		ND	H	1.8	4.0
Styrene		ND	H	0.20	4.0
Tetrachloroethene		8.1	H U	0.53	4.0
Toluene		ND	H U	0.30	4.0
trans-1,2-Dichloroethene		ND	H	0.41	4.0
trans-1,3-Dichloropropene		ND	H	1.7	4.0
Trichloroethene		2.9	H U	0.87	4.0
Trichlorofluoromethane		ND	H U	0.37	4.0

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-28

Lab Sample ID: 480-47844-16

Date Sampled: 10/10/2013 1520

Client Matrix: Solid

% Moisture: 4.8

Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147396	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-147411	Lab File ID:	F2741.D
Dilution:	1.0			Initial Weight/Volume:	6.63 g
Analysis Date:	10/25/2013 0138			Final Weight/Volume:	5 g
Prep Date:	10/24/2013 2343				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND	HUS	0.48	4.0
Xylenes, Total		ND	HUS	0.67	7.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	105		71 - 125
1,2-Dichloroethane-d4 (Surr)	110		64 - 126
4-Bromofluorobenzene (Surr)	104		72 - 126

### Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: DUP-1

Lab Sample ID: 480-47844-19FD

Date Sampled: 10/11/2013 0000

Client Matrix: Solid

% Moisture: 9.3

Date Received: 10/12/2013 0200

#### 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2702.D
Dilution:	1.0			Initial Weight/Volume:	6.18 g
Analysis Date:	10/24/2013 0738			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.32	4.5
1,1,2,2-Tetrachloroethane		ND		0.72	4.5
1,1,2-Trichloroethane		ND		0.58	4.5
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.0	4.5
1,1-Dichloroethane		ND		0.54	4.5
1,1-Dichloroethene		ND		0.55	4.5
1,2,4-Trichlorobenzene		ND		0.27	4.5
1,2-Dibromo-3-Chloropropane		ND		2.2	4.5
1,2-Dichlorobenzene		ND		0.35	4.5
1,2-Dichloroethane		ND		0.22	4.5
1,2-Dichloropropane		ND		2.2	4.5
1,3-Dichlorobenzene		ND		0.23	4.5
1,4-Dichlorobenzene		ND		0.62	4.5
2-Butanone (MEK)		ND		1.6	22
2-Hexanone		ND		2.2	22
4-Methyl-2-pentanone (MIBK)		ND		1.5	22
Acetone		ND		3.8	22
Benzene		ND		0.22	4.5
Bromodichloromethane		ND		0.60	4.5
Bromoform		ND	UJ	2.2	4.5
Bromomethane		ND		0.40	4.5
Carbon disulfide		ND		2.2	4.5
Carbon tetrachloride		ND		0.43	4.5
Chlorobenzene		ND		0.59	4.5
Dibromochloromethane		ND		0.57	4.5
Chloroethane		ND		1.0	4.5
Chloroform		ND		0.28	4.5
Chloromethane		ND		0.27	4.5
cis-1,2-Dichloroethene		ND		0.57	4.5
cis-1,3-Dichloropropene		ND		0.64	4.5
Cyclohexane		ND		0.62	4.5
Dichlorodifluoromethane		ND		0.37	4.5
Ethylbenzene		ND		0.31	4.5
1,2-Dibromoethane		ND		0.57	4.5
Isopropylbenzene		ND		0.67	4.5
Methyl acetate		ND		0.83	4.5
Methyl tert-butyl ether		ND		0.44	4.5
Methylcyclohexane		ND		0.68	4.5
Methylene Chloride		ND		2.1	4.5
Styrene		ND		0.22	4.5
Tetrachloroethene		ND		0.60	4.5
Toluene		ND		0.34	4.5
trans-1,2-Dichloroethene		ND		0.46	4.5
trans-1,3-Dichloropropene		ND		2.0	4.5
Trichloroethene		ND		0.98	4.5
Trichlorofluoromethane		ND		0.42	4.5



# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: DUP-1

Lab Sample ID: 480-47844-19FD

Date Sampled: 10/11/2013 0000

Client Matrix: Solid

% Moisture: 9.3

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2702.D
Dilution:	1.0			Initial Weight/Volume:	6.18 g
Analysis Date:	10/24/2013 0738			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.54	4.5
Xylenes, Total		ND		0.75	8.9

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	105		71 - 125
1,2-Dichloroethane-d4 (Surr)	105		64 - 126
4-Bromofluorobenzene (Surr)	108		72 - 126

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: DUP-2

Lab Sample ID: 480-47844-20FD

Date Sampled: 10/11/2013 0000

Client Matrix: Solid

% Moisture: 20.1

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C      Analysis Batch: 480-147088      Instrument ID: HP5973F  
Prep Method: 5035      Prep Batch: 480-146484      Lab File ID: F2703.D  
Dilution: 1.0      Initial Weight/Volume: 5.96 g  
Analysis Date: 10/24/2013 0804      Final Weight/Volume: 5 g  
Prep Date: 10/22/2013 0235

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.38	5.3
1,1,1,2-Tetrachloroethane		ND		0.85	5.3
1,1,2-Trichloroethane		ND		0.68	5.3
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.2	5.3
1,1-Dichloroethane		ND		0.64	5.3
1,1-Dichloroethene		ND		0.64	5.3
1,2,4-Trichlorobenzene		ND		0.32	5.3
1,2-Dibromo-3-Chloropropane		ND		2.6	5.3
1,2-Dichlorobenzene		ND		0.41	5.3
1,2-Dichloroethane		ND		0.26	5.3
1,2-Dichloropropane		ND		2.6	5.3
1,3-Dichlorobenzene		ND		0.27	5.3
1,4-Dichlorobenzene		ND		0.74	5.3
2-Butanone (MEK)		ND		1.9	26
2-Hexanone		ND		2.6	26
4-Methyl-2-pentanone (MIBK)		ND		1.7	26
Acetone		ND		4.4	26
Benzene		ND		0.26	5.3
Bromodichloromethane		ND		0.70	5.3
Bromoform		ND	UJ	2.6	5.3
Bromomethane		ND		0.47	5.3
Carbon disulfide		ND		2.6	5.3
Carbon tetrachloride		ND		0.51	5.3
Chlorobenzene		ND		0.69	5.3
Dibromochloromethane		ND		0.67	5.3
Chloroethane		ND		1.2	5.3
Chloroform		ND		0.32	5.3
Chloromethane		ND		0.32	5.3
cis-1,2-Dichloroethene		ND		0.67	5.3
cis-1,3-Dichloropropene		ND		0.76	5.3
Cyclohexane		ND		0.74	5.3
Dichlorodifluoromethane		ND		0.43	5.3
Ethylbenzene		ND		0.36	5.3
1,2-Dibromoethane		ND		0.67	5.3
Isopropylbenzene		ND		0.79	5.3
Methyl acetate		ND		0.98	5.3
Methyl tert-butyl ether		ND		0.52	5.3
Methylcyclohexane		ND		0.80	5.3
Methylene Chloride		ND		2.4	5.3
Styrene		ND		0.26	5.3
Tetrachloroethene		ND		0.70	5.3
Toluene		ND		0.40	5.3
trans-1,2-Dichloroethene		ND		0.54	5.3
trans-1,3-Dichloropropene		ND		2.3	5.3
Trichloroethene		ND		1.2	5.3
Trichlorofluoromethane		ND		0.50	5.3

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: DUP-2

Lab Sample ID: 480-47844-20FD

Date Sampled: 10/11/2013 0000

Client Matrix: Solid

% Moisture: 20.1

Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2703.D
Dilution:	1.0			Initial Weight/Volume:	5.96 g
Analysis Date:	10/24/2013 0804			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.64	5.3
Xylenes, Total		ND		0.88	11

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	109		71 - 125
1,2-Dichloroethane-d4 (Surr)	108		64 - 126
4-Bromofluorobenzene (Surr)	109		72 - 126

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-9

Lab Sample ID: 480-47844-21

Date Sampled: 10/10/2013 1155

Client Matrix: Solid

% Moisture: 27.5

Date Received: 10/12/2013 0200

**8260C Volatile Organic Compounds by GC/MS**

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2704.D
Dilution:	1.0			Initial Weight/Volume:	5.48 g
Analysis Date:	10/24/2013 0829			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.46	6.3
1,1,1,2-Tetrachloroethane		ND		1.0	6.3
1,1,2-Trichloroethane		ND		0.82	6.3
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.4	6.3
1,1-Dichloroethane		ND		0.77	6.3
1,1-Dichloroethene		ND		0.77	6.3
1,2,4-Trichlorobenzene		ND		0.38	6.3
1,2-Dibromo-3-Chloropropane		ND		3.1	6.3
1,2-Dichlorobenzene		ND		0.49	6.3
1,2-Dichloroethane		ND		0.32	6.3
1,2-Dichloropropane		ND		3.1	6.3
1,3-Dichlorobenzene		ND		0.32	6.3
1,4-Dichlorobenzene		ND		0.88	6.3
2-Butanone (MEK)		ND		2.3	31
2-Hexanone		ND		3.1	31
4-Methyl-2-pentanone (MIBK)		ND		2.1	31
Acetone		ND		5.3	31
Benzene		ND		0.31	6.3
Bromodichloromethane		ND		0.84	6.3
Bromoform		ND	UJ	3.1	6.3
Bromomethane		ND		0.57	6.3
Carbon disulfide		ND		3.1	6.3
Carbon tetrachloride		ND		0.61	6.3
Chlorobenzene		ND		0.83	6.3
Dibromochloromethane		ND		0.81	6.3
Chloroethane		ND		1.4	6.3
Chloroform		ND		0.39	6.3
Chloromethane		ND		0.38	6.3
cis-1,2-Dichloroethene		ND		0.81	6.3
cis-1,3-Dichloropropene		ND		0.91	6.3
Cyclohexane		ND		0.88	6.3
Dichlorodifluoromethane		ND		0.52	6.3
Ethylbenzene		ND		0.43	6.3
1,2-Dibromoethane		ND		0.81	6.3
Isopropylbenzene		ND		0.95	6.3
Methyl acetate		ND		1.2	6.3
Methyl tert-butyl ether		ND		0.62	6.3
Methylcyclohexane		ND		0.96	6.3
Methylene Chloride		ND		2.9	6.3
Styrene		ND		0.31	6.3
Tetrachloroethene		ND		0.84	6.3
Toluene		ND		0.48	6.3
trans-1,2-Dichloroethene		ND		0.65	6.3
trans-1,3-Dichloropropene		ND		2.8	6.3
Trichloroethene		ND		1.4	6.3
Trichlorofluoromethane		ND		0.60	6.3

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-9

Lab Sample ID: 480-47844-21

Date Sampled: 10/10/2013 1155

Client Matrix: Solid

% Moisture: 27.5

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2704.D
Dilution:	1.0			Initial Weight/Volume:	5.48 g
Analysis Date:	10/24/2013 0829			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.77	6.3
Xylenes, Total		ND		1.1	13

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	106		71 - 125
1,2-Dichloroethane-d4 (Surr)	109		64 - 126
4-Bromofluorobenzene (Surr)	107		72 - 126

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-8

Lab Sample ID: 480-47844-22

Date Sampled: 10/10/2013 1220

Client Matrix: Solid

% Moisture: 36.8

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2705.D
Dilution:	1.0			Initial Weight/Volume:	5.26 g
Analysis Date:	10/24/2013 0855			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.55	7.5
1,1,2,2-Tetrachloroethane		ND		1.2	7.5
1,1,2-Trichloroethane		ND		0.98	7.5
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.7	7.5
1,1-Dichloroethane		ND		0.92	7.5
1,1-Dichloroethene		ND		0.92	7.5
1,2,4-Trichlorobenzene		ND		0.46	7.5
1,2-Dibromo-3-Chloropropane		ND		3.8	7.5
1,2-Dichlorobenzene		ND		0.59	7.5
1,2-Dichloroethane		ND		0.38	7.5
1,2-Dichloropropane		ND		3.8	7.5
1,3-Dichlorobenzene		ND		0.39	7.5
1,4-Dichlorobenzene		ND		1.1	7.5
2-Butanone (MEK)		ND		2.8	38
2-Hexanone		ND		3.8	38
4-Methyl-2-pentanone (MIBK)		ND		2.5	38
Acetone		ND		6.3	38
Benzene		ND		0.37	7.5
Bromodichloromethane		ND		1.0	7.5
Bromoform		ND		3.8	7.5
Bromomethane		ND	UJ	0.68	7.5
Carbon disulfide		ND		3.8	7.5
Carbon tetrachloride		ND		0.73	7.5
Chlorobenzene		ND		0.99	7.5
Dibromochloromethane		ND		0.96	7.5
Chloroethane		ND		1.7	7.5
Chloroform		ND		0.47	7.5
Chloromethane		ND		0.45	7.5
cis-1,2-Dichloroethene		ND		0.96	7.5
cis-1,3-Dichloropropene		ND		1.1	7.5
Cyclohexane		ND		1.1	7.5
Dichlorodifluoromethane		ND		0.62	7.5
Ethylbenzene		ND		0.52	7.5
1,2-Dibromoethane		ND		0.97	7.5
Isopropylbenzene		ND		1.1	7.5
Methyl acetate		ND		1.4	7.5
Methyl tert-butyl ether		ND		0.74	7.5
Methylcyclohexane		ND		1.1	7.5
Methylene Chloride		ND		3.5	7.5
Styrene		ND		0.38	7.5
Tetrachloroethene		ND		1.0	7.5
Toluene		ND		0.57	7.5
trans-1,2-Dichloroethene		ND		0.78	7.5
trans-1,3-Dichloropropene		ND		3.3	7.5
Trichloroethene		ND		1.7	7.5
Trichlorofluoromethane		ND		0.71	7.5

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-8

Lab Sample ID: 480-47844-22

Date Sampled: 10/10/2013 1220

Client Matrix: Solid

% Moisture: 36.8

Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2705.D
Dilution:	1.0			Initial Weight/Volume:	5.26 g
Analysis Date:	10/24/2013 0855			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.92	7.5
Xylenes, Total		ND		1.3	15

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	110		71 - 125
1,2-Dichloroethane-d4 (Surr)	111		64 - 126
4-Bromofluorobenzene (Surr)	108		72 - 126

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-7

Lab Sample ID: 480-47844-23

Date Sampled: 10/10/2013 1255

Client Matrix: Solid

% Moisture: 17.3

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-147088	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-146484	Lab File ID: F2706.D	
Dilution: 1.0		Initial Weight/Volume: 6.25 g	
Analysis Date: 10/24/2013 0920		Final Weight/Volume: 5 g	
Prep Date: 10/22/2013 0235			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.35	4.8
1,1,1,2-Tetrachloroethane		ND		0.78	4.8
1,1,2-Trichloroethane		ND		0.63	4.8
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.1	4.8
1,1-Dichloroethane		ND		0.59	4.8
1,1-Dichloroethene		ND		0.59	4.8
1,2,4-Trichlorobenzene		ND		0.29	4.8
1,2-Dibromo-3-Chloropropane		ND		2.4	4.8
1,2-Dichlorobenzene		ND		0.38	4.8
1,2-Dichloroethane		ND		0.24	4.8
1,2-Dichloropropane		ND		2.4	4.8
1,3-Dichlorobenzene		ND		0.25	4.8
1,4-Dichlorobenzene		ND		0.68	4.8
2-Butanone (MEK)		350		1.8	24
2-Hexanone		ND		2.4	24
4-Methyl-2-pentanone (MIBK)		ND		1.6	24
Acetone		180		4.1	24
Benzene		ND		0.24	4.8
Bromodichloromethane		ND		0.65	4.8
Bromoform		ND	UJ	2.4	4.8
Bromomethane		ND		0.44	4.8
Carbon disulfide		ND		2.4	4.8
Carbon tetrachloride		ND		0.47	4.8
Chlorobenzene		ND		0.64	4.8
Dibromochloromethane		ND		0.62	4.8
Chloroethane		ND		1.1	4.8
Chloroform		ND		0.30	4.8
Chloromethane		ND		0.29	4.8
cis-1,2-Dichloroethene		ND		0.62	4.8
cis-1,3-Dichloropropene		ND		0.70	4.8
Cyclohexane		ND		0.68	4.8
Dichlorodifluoromethane		ND		0.40	4.8
Ethylbenzene		ND		0.33	4.8
1,2-Dibromoethane		ND		0.62	4.8
Isopropylbenzene		ND		0.73	4.8
Methyl acetate		ND		0.90	4.8
Methyl tert-butyl ether		ND		0.48	4.8
Methylcyclohexane		ND		0.74	4.8
Methylene Chloride		ND		2.2	4.8
Styrene		ND		0.24	4.8
Tetrachloroethene		ND		0.65	4.8
Toluene		ND		0.37	4.8
trans-1,2-Dichloroethene		ND		0.50	4.8
trans-1,3-Dichloropropene		ND		2.1	4.8
Trichloroethene		ND		1.1	4.8
Trichlorofluoromethane		ND		0.46	4.8



# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-7

Lab Sample ID: 480-47844-23

Date Sampled: 10/10/2013 1255

Client Matrix: Solid

% Moisture: 17.3

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2706.D
Dilution:	1.0			Initial Weight/Volume:	6.25 g
Analysis Date:	10/24/2013 0920			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.59	4.8
Xylenes, Total		ND		0.81	9.7

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	104		71 - 125
1,2-Dichloroethane-d4 (Surr)	111		64 - 126
4-Bromofluorobenzene (Surr)	109		72 - 126

### Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-4

Lab Sample ID: 480-47844-24

Date Sampled: 10/10/2013 1335

Client Matrix: Solid

% Moisture: 29.6

Date Received: 10/12/2013 0200

#### 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2707.D
Dilution:	1.0			Initial Weight/Volume:	6.2 g
Analysis Date:	10/24/2013 0946			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.42	5.7
1,1,1,2-Tetrachloroethane		ND		0.93	5.7
1,1,2-Trichloroethane		ND		0.74	5.7
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.3	5.7
1,1-Dichloroethane		ND		0.70	5.7
1,1-Dichloroethene		ND		0.70	5.7
1,2,4-Trichlorobenzene		ND		0.35	5.7
1,2-Dibromo-3-Chloropropane		ND		2.9	5.7
1,2-Dichlorobenzene		ND		0.45	5.7
1,2-Dichloroethane		ND		0.29	5.7
1,2-Dichloropropane		ND		2.9	5.7
1,3-Dichlorobenzene		ND		0.29	5.7
1,4-Dichlorobenzene		ND		0.80	5.7
2-Butanone (MEK)		ND		2.1	29
2-Hexanone		ND		2.9	29
4-Methyl-2-pentanone (MIBK)		ND		1.9	29
Acetone		ND		4.8	29
Benzene		ND		0.28	5.7
Bromodichloromethane		ND		0.77	5.7
Bromoform		ND	U3	2.9	5.7
Bromomethane		ND		0.52	5.7
Carbon disulfide		ND		2.9	5.7
Carbon tetrachloride		ND		0.55	5.7
Chlorobenzene		ND		0.76	5.7
Dibromochloromethane		ND		0.73	5.7
Chloroethane		ND		1.3	5.7
Chloroform		ND		0.35	5.7
Chloromethane		ND		0.35	5.7
cis-1,2-Dichloroethene		ND		0.73	5.7
cis-1,3-Dichloropropene		ND		0.82	5.7
Cyclohexane		ND		0.80	5.7
Dichlorodifluoromethane		ND		0.47	5.7
Ethylbenzene		ND		0.40	5.7
1,2-Dibromoethane		ND		0.74	5.7
Isopropylbenzene		ND		0.86	5.7
Methyl acetate		ND		1.1	5.7
Methyl tert-butyl ether		ND		0.56	5.7
Methylcyclohexane		ND		0.87	5.7
Methylene Chloride		ND		2.6	5.7
Styrene		ND		0.29	5.7
Tetrachloroethene		ND		0.77	5.7
Toluene		ND		0.43	5.7
trans-1,2-Dichloroethene		ND		0.59	5.7
trans-1,3-Dichloropropene		ND		2.5	5.7
Trichloroethene		ND		1.3	5.7
Trichlorofluoromethane		ND		0.54	5.7

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-4

Lab Sample ID: 480-47844-24

Client Matrix: Solid

% Moisture: 29.6

Date Sampled: 10/10/2013 1335

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147088	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2707.D
Dilution:	1.0			Initial Weight/Volume:	6.2 g
Analysis Date:	10/24/2013 0946			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.70	5.7
Xylenes, Total		ND		0.96	11

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	107		71 - 125
1,2-Dichloroethane-d4 (Surr)	110		64 - 126
4-Bromofluorobenzene (Surr)	108		72 - 126

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-2

Lab Sample ID: 480-47844-25

Date Sampled: 10/10/2013 1550

Client Matrix: Solid

% Moisture: 20.7

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C      Analysis Batch: 480-147179      Instrument ID: HP5973F  
Prep Method: 5035      Prep Batch: 480-146484      Lab File ID: F2713.D  
Dilution: 1.0      Initial Weight/Volume: 6.98 g  
Analysis Date: 10/24/2013 1245      Final Weight/Volume: 5 g  
Prep Date: 10/22/2013 0235

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.33	4.5
1,1,1,2-Tetrachloroethane		ND		0.73	4.5
1,1,2-Trichloroethane		ND		0.59	4.5
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.0	4.5
1,1-Dichloroethane		ND		0.55	4.5
1,1-Dichloroethene		ND		0.55	4.5
1,2,4-Trichlorobenzene		ND		0.27	4.5
1,2-Dibromo-3-Chloropropane		ND		2.3	4.5
1,2-Dichlorobenzene		ND		0.35	4.5
1,2-Dichloroethane		ND		0.23	4.5
1,2-Dichloropropane		ND		2.3	4.5
1,3-Dichlorobenzene		ND		0.23	4.5
1,4-Dichlorobenzene		ND		0.63	4.5
2-Butanone (MEK)		ND		1.7	23
2-Hexanone		ND		2.3	23
4-Methyl-2-pentanone (MIBK)		ND		1.5	23
Acetone		ND		3.8	23
Benzene		ND		0.22	4.5
Bromodichloromethane		ND		0.61	4.5
Bromoform		ND		2.3	4.5
Bromomethane		ND		0.41	4.5
Carbon disulfide		ND		2.3	4.5
Carbon tetrachloride		ND		0.44	4.5
Chlorobenzene		ND		0.60	4.5
Dibromochloromethane		ND		0.58	4.5
Chloroethane		ND		1.0	4.5
Chloroform		ND		0.28	4.5
Chloromethane		ND		0.27	4.5
cis-1,2-Dichloroethene		ND		0.58	4.5
cis-1,3-Dichloropropene		ND		0.65	4.5
Cyclohexane		ND		0.63	4.5
Dichlorodifluoromethane		ND		0.37	4.5
Ethylbenzene		ND		0.31	4.5
1,2-Dibromoethane		ND		0.58	4.5
Isopropylbenzene		ND		0.68	4.5
Methyl acetate		ND		0.84	4.5
Methyl tert-butyl ether		ND		0.44	4.5
Methylcyclohexane		ND		0.69	4.5
Methylene Chloride		ND		2.1	4.5
Styrene		ND		0.23	4.5
Tetrachloroethene		ND		0.61	4.5
Toluene		ND		0.34	4.5
trans-1,2-Dichloroethene		ND		0.47	4.5
trans-1,3-Dichloropropene		ND		2.0	4.5
Trichloroethene		ND		0.99	4.5
Trichlorofluoromethane		ND		0.43	4.5

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-2

Lab Sample ID: 480-47844-25

Date Sampled: 10/10/2013 1550

Client Matrix: Solid

% Moisture: 20.7

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147179	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2713.D
Dilution:	1.0			Initial Weight/Volume:	6.98 g
Analysis Date:	10/24/2013 1245			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.55	4.5
Xylenes, Total		ND		0.76	9.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	103		71 - 125
1,2-Dichloroethane-d4 (Surr)	117		64 - 126
4-Bromofluorobenzene (Surr)	106		72 - 126

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-1

Lab Sample ID: 480-47844-26

Date Sampled: 10/10/2013 1630

Client Matrix: Solid

% Moisture: 16.2

Date Received: 10/12/2013 0200

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C	Analysis Batch: 480-147179	Instrument ID: HP5973F	
Prep Method: 5035	Prep Batch: 480-146484	Lab File ID: F2714.D	
Dilution: 1.0		Initial Weight/Volume: 6.5 g	
Analysis Date: 10/24/2013 1311		Final Weight/Volume: 5 g	
Prep Date: 10/22/2013 0235			

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.33	4.6
1,1,2,2-Tetrachloroethane		ND		0.74	4.6
1,1,2-Trichloroethane		ND		0.60	4.6
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.0	4.6
1,1-Dichloroethane		ND		0.56	4.6
1,1-Dichloroethene		ND		0.56	4.6
1,2,4-Trichlorobenzene		ND		0.28	4.6
1,2-Dibromo-3-Chloropropane		ND		2.3	4.6
1,2-Dichlorobenzene		ND		0.36	4.6
1,2-Dichloroethane		ND		0.23	4.6
1,2-Dichloropropane		ND		2.3	4.6
1,3-Dichlorobenzene		ND		0.24	4.6
1,4-Dichlorobenzene		ND		0.64	4.6
2-Butanone (MEK)		ND		1.7	23
2-Hexanone		ND		2.3	23
4-Methyl-2-pentanone (MIBK)		ND		1.5	23
Acetone		ND		3.9	23
Benzene		ND		0.23	4.6
Bromodichloromethane		ND		0.62	4.6
Bromoform		ND	U3	2.3	4.6
Bromomethane		ND		0.41	4.6
Carbon disulfide		ND		2.3	4.6
Carbon tetrachloride		ND		0.44	4.6
Chlorobenzene		ND		0.61	4.6
Dibromochloromethane		ND		0.59	4.6
Chloroethane		ND		1.0	4.6
Chloroform		ND		0.28	4.6
Chloromethane		ND		0.28	4.6
cis-1,2-Dichloroethene		ND		0.59	4.6
cis-1,3-Dichloropropene		ND		0.66	4.6
Cyclohexane		ND		0.64	4.6
Dichlorodifluoromethane		ND		0.38	4.6
Ethylbenzene		ND		0.32	4.6
1,2-Dibromoethane		ND		0.59	4.6
Isopropylbenzene		ND		0.69	4.6
Methyl acetate		ND		0.85	4.6
Methyl tert-butyl ether		ND		0.45	4.6
Methylcyclohexane		ND		0.70	4.6
Methylene Chloride		ND		2.1	4.6
Styrene		ND		0.23	4.6
Tetrachloroethene		ND		0.62	4.6
Toluene		ND		0.35	4.6
trans-1,2-Dichloroethene		ND		0.47	4.6
trans-1,3-Dichloropropene		ND		2.0	4.6
Trichloroethene		ND		1.0	4.6
Trichlorofluoromethane		ND		0.43	4.6

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-1

Lab Sample ID: 480-47844-26

Date Sampled: 10/10/2013 1630

Client Matrix: Solid

% Moisture: 16.2

Date Received: 10/12/2013 0200

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147179	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-146484	Lab File ID:	F2714.D
Dilution:	1.0			Initial Weight/Volume:	6.5 g
Analysis Date:	10/24/2013 1311			Final Weight/Volume:	5 g
Prep Date:	10/22/2013 0235				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.56	4.6
Xylenes, Total		ND		0.77	9.2

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	105		71 - 125
1,2-Dichloroethane-d4 (Surr)	108		64 - 126
4-Bromofluorobenzene (Surr)	106		72 - 126

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-3

Lab Sample ID: 480-47844-27

Date Sampled: 10/10/2013 1725

Client Matrix: Solid

% Moisture: 18.6

Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C                      Analysis Batch: 480-147396                      Instrument ID: HP5973F  
 Prep Method: 5035                          Prep Batch: 480-147411                      Lab File ID: F2742.D  
 Dilution: 1.0    Initial Weight/Volume: 6.72 g  
 Analysis Date: 10/25/2013 0203                      Final Weight/Volume: 5 g  
 Prep Date: 10/24/2013 2343

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND	H	0.33	4.6
1,1,2,2-Tetrachloroethane		ND	H	0.74	4.6
1,1,2-Trichloroethane		ND	H	0.59	4.6
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	H	1.0	4.6
1,1-Dichloroethane		ND	H	0.56	4.6
1,1-Dichloroethene		ND	H	0.56	4.6
1,2,4-Trichlorobenzene		ND	H	0.28	4.6
1,2-Dibromo-3-Chloropropane		ND	H	2.3	4.6
1,2-Dichlorobenzene		ND	H	0.36	4.6
1,2-Dichloroethane		ND	H	0.23	4.6
1,2-Dichloropropane		ND	H	2.3	4.6
1,3-Dichlorobenzene		ND	H	0.23	4.6
1,4-Dichlorobenzene		ND	H	0.64	4.6
2-Butanone (MEK)		ND	H	1.7	23
2-Hexanone		ND	H	2.3	23
4-Methyl-2-pentanone (MIBK)		ND	H	1.5	23
Acetone		ND	H	3.8	23
Benzene		ND	H	0.22	4.6
Bromodichloromethane		ND	H	0.61	4.6
Bromoform		ND	H	2.3	4.6
Bromomethane		ND	H	0.41	4.6
Carbon disulfide		ND	H	2.3	4.6
Carbon tetrachloride		ND	H	0.44	4.6
Chlorobenzene		ND	H	0.60	4.6
Dibromochloromethane		ND	H	0.59	4.6
Chloroethane		ND	H	1.0	4.6
Chloroform		ND	H	0.28	4.6
Chloromethane		ND	H	0.28	4.6
cis-1,2-Dichloroethene		ND	H	0.59	4.6
cis-1,3-Dichloropropene		ND	H	0.66	4.6
Cyclohexane		ND	H	0.64	4.6
Dichlorodifluoromethane		ND	H	0.38	4.6
Ethylbenzene		ND	H	0.32	4.6
1,2-Dibromoethane		ND	H	0.59	4.6
Isopropylbenzene		ND	H	0.69	4.6
Methyl acetate		ND	H	0.85	4.6
Methyl tert-butyl ether		ND	H	0.45	4.6
Methylcyclohexane		ND	H	0.69	4.6
Methylene Chloride		ND	H	2.1	4.6
Styrene		ND	H	0.23	4.6
Tetrachloroethene		ND	H	0.61	4.6
Toluene		ND	H	0.35	4.6
trans-1,2-Dichloroethene		ND	H	0.47	4.6
trans-1,3-Dichloropropene		ND	H	2.0	4.6
Trichloroethene		ND	H	1.0	4.6
Trichlorofluoromethane		ND	H	0.43	4.6



Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-3

Lab Sample ID: 480-47844-27

Client Matrix: Solid

% Moisture: 18.6

Date Sampled: 10/10/2013 1725

Date Received: 10/12/2013 0200

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-147396	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-147411	Lab File ID:	F2742.D
Dilution:	1.0			Initial Weight/Volume:	6.72 g
Analysis Date:	10/25/2013 0203			Final Weight/Volume:	5 g
Prep Date:	10/24/2013 2343				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND	H US	0.56	4.6
Xylenes, Total		ND	H US	0.77	9.1

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	103		71 - 125
1,2-Dichloroethane-d4 (Surr)	115		64 - 126
4-Bromofluorobenzene (Surr)	105		72 - 126

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: FB

Lab Sample ID: 480-47844-1FB

Client Matrix: Water

Date Sampled: 10/11/2013 1600

Date Received: 10/12/2013 0200

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A      Analysis Batch: 480-145203      Instrument ID: HP6890-7  
Prep Method: 3510C      Prep Batch: 480-144925      Initial Weight/Volume: 271.1 mL  
Dilution: 1.0      Final Weight/Volume: 2 mL  
Analysis Date: 10/16/2013 1515      Injection Volume: 1 uL  
Prep Date: 10/15/2013 0633      Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.16	0.46
PCB-1221	ND		0.16	0.46
PCB-1232	ND		0.16	0.46
PCB-1242	ND		0.16	0.46
PCB-1248	ND		0.16	0.46
PCB-1254	ND		0.23	0.46
PCB-1260	ND		0.23	0.46

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	60		23 - 127
DCB Decachlorobiphenyl	71		19 - 126

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-6

Lab Sample ID: 480-47844-3

Date Sampled: 10/11/2013 1145

Client Matrix: Solid

% Moisture: 11.7

Date Received: 10/12/2013 0200

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.37 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/15/2013 1947			Injection Volume:	1 uL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		47	240
PCB-1221		ND		47	240
PCB-1232		ND		47	240
PCB-1242		ND		47	240
PCB-1248		ND		47	240
PCB-1254		ND		110	240
PCB-1260		ND		110	240
Surrogate		%Rec	Qualifier	Acceptance Limits	
DCB Decachlorobiphenyl		140		47 - 176	
Tetrachloro-m-xylene		120		46 - 175	

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-5

Lab Sample ID: 480-47844-4

Date Sampled: 10/11/2013 1230

Client Matrix: Solid

% Moisture: 26.8

Date Received: 10/12/2013 0200

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.81 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/15/2013 2002			Injection Volume:	1 uL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		48	240
PCB-1221		ND		48	240
PCB-1232		ND		48	240
PCB-1242		ND		48	240
PCB-1248		ND		48	240
PCB-1254		ND		110	240
PCB-1260		ND		110	240

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	122		47 - 176
Tetrachloro-m-xylene	113		46 - 175

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-12

Lab Sample ID: 480-47844-5

Date Sampled: 10/11/2013 1420

Client Matrix: Solid

% Moisture: 9.4

Date Received: 10/12/2013 0200

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.16 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/15/2013 2017			Injection Volume:	1 µL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		50	260
PCB-1221		ND		50	260
PCB-1232		ND		50	260
PCB-1242		ND		50	260
PCB-1248		ND		50	260
PCB-1254		ND		120	260
PCB-1260		ND		120	260
Surrogate		%Rec	Qualifier	Acceptance Limits	
DCB Decachlorobiphenyl		127		47 - 176	
Tetrachloro-m-xylene		116		46 - 175	

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-19

Lab Sample ID: 480-47844-6

Date Sampled: 10/11/2013 1520

Client Matrix: Solid

% Moisture: 16.4

Date Received: 10/12/2013 0200

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.43 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/15/2013 2101			Injection Volume:	1 uL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		48	250
PCB-1221		ND		48	250
PCB-1232		ND		48	250
PCB-1242		ND		48	250
PCB-1248		ND		48	250
PCB-1254		ND		120	250
PCB-1260		ND		120	250

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	135		47 - 176
Tetrachloro-m-xylene	121		46 - 175

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-16

Lab Sample ID: 480-47844-7

Date Sampled: 10/11/2013 1000

Client Matrix: Solid

% Moisture: 11.7

Date Received: 10/12/2013 0200

### 8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A	Analysis Batch: 480-144916	Instrument ID: HP5890-12	
Prep Method: 3550C	Prep Batch: 480-144724	Initial Weight/Volume: +2.55 g	
Dilution: 1.0		Final Weight/Volume: 10 mL	
Analysis Date: 10/15/2013 2116		Injection Volume: 1 µL	
Prep Date: 10/14/2013 1044		Result Type: PRIMARY	

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		43	220
PCB-1221		ND		43	220
PCB-1232		ND		43	220
PCB-1242		ND		43	220
PCB-1248		ND		43	220
PCB-1254		ND		100	220
PCB-1260		ND		100	220
Surrogate		%Rec	Qualifier	Acceptance Limits	
DCB Decachlorobiphenyl		131		47 - 176	
Tetrachloro-m-xylene		120		46 - 175	

Quali

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-15

Lab Sample ID: 480-47844-8

Date Sampled: 10/11/2013 1120

Client Matrix: Solid

% Moisture: 19.4

Date Received: 10/12/2013 0200

### 8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A	Analysis Batch: 480-144916	Instrument ID: HP5890-12	
Prep Method: 3550C	Prep Batch: 480-144724	Initial Weight/Volume: +2.24 g	
Dilution: 1.0		Final Weight/Volume: 10 mL	
Analysis Date: 10/15/2013 2200		Injection Volume: 1 uL	
Prep Date: 10/14/2013 1044		Result Type: PRIMARY	

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		54	280
PCB-1221		ND		54	280
PCB-1232		ND		54	280
PCB-1242		ND		54	280
PCB-1248		ND		54	280
PCB-1254		350		130	280
PCB-1260		ND		130	280

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	106		47 - 176
Tetrachloro-m-xylene	111		46 - 175



**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-10

Lab Sample ID: 480-47844-9

Date Sampled: 10/10/2013 1750

Client Matrix: Solid

% Moisture: 12.4

Date Received: 10/12/2013 0200

**8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analysis Method: 8082A	Analysis Batch: 480-144916	Instrument ID: HP5890-12
Prep Method: 3550C	Prep Batch: 480-144724	Initial Weight/Volume: +2.13 g
Dilution: 1.0		Final Weight/Volume: 10 mL
Analysis Date: 10/15/2013 2245		Injection Volume: 1 uL
Prep Date: 10/14/2013 1044		Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		52	270
PCB-1221		ND		52	270
PCB-1232		ND		52	270
PCB-1242		ND		52	270
PCB-1248		ND		52	270
PCB-1254		ND		130	270
PCB-1260		ND		130	270

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	145		47 - 176
Tetrachloro-m-xylene	117		46 - 175

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-17

Lab Sample ID: 480-47844-10

Date Sampled: 10/10/2013 1650

Client Matrix: Solid

% Moisture: 12.0

Date Received: 10/12/2013 0200

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A      Analysis Batch: 480-144916      Instrument ID: HP5890-12  
Prep Method: 3550C      Prep Batch: 480-144724      Initial Weight/Volume: +2.15 g  
Dilution: 1.0      Final Weight/Volume: 10 mL  
Analysis Date: 10/15/2013 2259      Injection Volume: 1 uL  
Prep Date: 10/14/2013 1044      Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		52	260
PCB-1221		ND		52	260
PCB-1232		ND		52	260
PCB-1242		ND		52	260
PCB-1248		ND		52	260
PCB-1254		ND		120	260
PCB-1260		ND		120	260

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	131		47 - 176
Tetrachloro-m-xylene	118		46 - 175

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-13

Lab Sample ID: 480-47844-11

Date Sampled: 10/10/2013 1714

Client Matrix: Solid

% Moisture: 11.1

Date Received: 10/12/2013 0200

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.08 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/15/2013 2314			Injection Volume:	1 µL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		53	270
PCB-1221		ND		53	270
PCB-1232		ND		53	270
PCB-1242		ND		53	270
PCB-1248		ND		53	270
PCB-1254		ND		130	270
PCB-1260		ND		130	270

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	139		47 - 176
Tetrachloro-m-xylene	120		46 - 175

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-18

Lab Sample ID: 480-47844-13

Date Sampled: 10/10/2013 0950

Client Matrix: Solid

% Moisture: 4.3

Date Received: 10/12/2013 0200

**8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analysis Method: 8082A	Analysis Batch: 480-144916	Instrument ID: HP5890-12
Prep Method: 3550C	Prep Batch: 480-144724	Initial Weight/Volume: +2.22 g
Dilution: 1.0		Final Weight/Volume: 10 mL
Analysis Date: 10/15/2013 2329		Injection Volume: 1 uL
Prep Date: 10/14/2013 1044		Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		46	240
PCB-1221		ND		46	240
PCB-1232		ND		46	240
PCB-1242		ND		46	240
PCB-1248		ND		46	240
PCB-1254		ND		110	240
PCB-1260		ND		110	240

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	144		47 - 176
Tetrachloro-m-xylene	121		46 - 175

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-11

Lab Sample ID: 480-47844-14

Date Sampled: 10/10/2013 1120

Client Matrix: Solid

% Moisture: 16.6

Date Received: 10/12/2013 0200

**8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.15 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/15/2013 2344			Injection Volume:	1 µL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		55	280
PCB-1221		ND		55	280
PCB-1232		ND		55	280
PCB-1242		ND		55	280
PCB-1248		ND		55	280
PCB-1254		ND		130	280
PCB-1260		ND		130	280

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	137		47 - 176
Tetrachloro-m-xylene	106		46 - 175

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-14

Lab Sample ID: 480-47844-15

Date Sampled: 10/10/2013 1330

Client Matrix: Solid

% Moisture: 15.0

Date Received: 10/12/2013 0200

**8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.45 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/15/2013 2359			Injection Volume:	1 µL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		47	240
PCB-1221		ND		47	240
PCB-1232		ND		47	240
PCB-1242		ND		47	240
PCB-1248		ND		47	240
PCB-1254		ND		110	240
PCB-1260		ND		110	240

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	126		47 - 176
Tetrachloro-m-xylene	115		46 - 175

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-28

Lab Sample ID: 480-47844-16

Date Sampled: 10/10/2013 1520

Client Matrix: Solid

% Moisture: 4.8

Date Received: 10/12/2013 0200

**8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.27 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/16/2013 0014			Injection Volume:	1 uL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		45	230
PCB-1221		ND		45	230
PCB-1232		ND		45	230
PCB-1242		ND		45	230
PCB-1248		ND		45	230
PCB-1254		<del>140</del> 230	JU	110	230
PCB-1260		ND		110	230

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	143		47 - 176
Tetrachloro-m-xylene	121		46 - 175

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: DUP-1

Lab Sample ID: 480-47844-19FD

Date Sampled: 10/11/2013 0000

Client Matrix: Solid

% Moisture: 9.3

Date Received: 10/12/2013 0200

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.23 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/16/2013 0058			Injection Volume:	1 uL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		48	250
PCB-1221		ND		48	250
PCB-1232		ND		48	250
PCB-1242		ND		48	250
PCB-1248		ND		48	250
PCB-1254		ND		120	250
PCB-1260		ND		120	250

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	141		47 - 176
Tetrachloro-m-xylene	122		46 - 175



**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: DUP-2

Lab Sample ID: 480-47844-20FD

Date Sampled: 10/11/2013 0000

Client Matrix: Solid

% Moisture: 20.1

Date Received: 10/12/2013 0200

**8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.29 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/16/2013 0113			Injection Volume:	1 uL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		53	270
PCB-1221		ND		53	270
PCB-1232		ND		53	270
PCB-1242		ND		53	270
PCB-1248		ND		53	270
PCB-1254		ND		130	270
PCB-1260		ND		130	270

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	114		47 - 176
Tetrachloro-m-xylene	115		46 - 175

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-9

Lab Sample ID: 480-47844-21

Date Sampled: 10/10/2013 1155

Client Matrix: Solid

% Moisture: 27.5

Date Received: 10/12/2013 0200

**8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.20 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/16/2013 0128			Injection Volume:	1 uL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		61	310
PCB-1221		ND		61	310
PCB-1232		ND		61	310
PCB-1242		ND		61	310
PCB-1248		ND		61	310
PCB-1254		ND		150	310
PCB-1260		ND		150	310

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	110		47 - 176
Tetrachloro-m-xylene	118		46 - 175

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-8

Lab Sample ID: 480-47844-22

Date Sampled: 10/10/2013 1220

Client Matrix: Solid

% Moisture: 36.8

Date Received: 10/12/2013 0200

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.24 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/16/2013 0143			Injection Volume:	1 uL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		69	350
PCB-1221		ND		69	350
PCB-1232		ND		69	350
PCB-1242		ND		69	350
PCB-1248		ND		69	350
PCB-1254		ND		170	350
PCB-1260		ND		170	350

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	85		47 - 176
Tetrachloro-m-xylene	111		46 - 175

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-7

Lab Sample ID: 480-47844-23

Date Sampled: 10/10/2013 1255

Client Matrix: Solid

% Moisture: 17.3

Date Received: 10/12/2013 0200

**8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.76 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/16/2013 0157			Injection Volume:	1 uL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		43	220
PCB-1221		ND		43	220
PCB-1232		ND		43	220
PCB-1242		ND		43	220
PCB-1248		ND		43	220
PCB-1254		2400		100	220
PCB-1260		ND		100	220

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	124		47 - 176
Tetrachloro-m-xylene	118		46 - 175

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-4

Lab Sample ID: 480-47844-24

Date Sampled: 10/10/2013 1335

Client Matrix: Solid

% Moisture: 29.6

Date Received: 10/12/2013 0200

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A      Analysis Batch: 480-144916      Instrument ID: HP5890-12  
Prep Method: 3550C      Prep Batch: 480-144724      Initial Weight/Volume: +2.12 g  
Dilution: 1.0      Final Weight/Volume: 10 mL  
Analysis Date: 10/16/2013 0212      Injection Volume: 1 µL  
Prep Date: 10/14/2013 1044      Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		66	340
PCB-1221		ND		66	340
PCB-1232		ND		66	340
PCB-1242		ND		66	340
PCB-1248		ND		66	340
PCB-1254		ND		160	340
PCB-1260		ND		160	340

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	125		47 - 176
Tetrachloro-m-xylene	120		46 - 175

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-2

Lab Sample ID: 480-47844-25

Date Sampled: 10/10/2013 1550

Client Matrix: Solid

% Moisture: 20.7

Date Received: 10/12/2013 0200

### 8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144724	Initial Weight/Volume:	+2.29 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/16/2013 0227			Injection Volume:	1 uL
Prep Date:	10/14/2013 1044			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		54	280
PCB-1221		ND		54	280
PCB-1232		ND		54	280
PCB-1242		ND		54	280
PCB-1248		ND		54	280
PCB-1254		ND		130	280
PCB-1260		ND		130	280
Surrogate		%Rec	Qualifier	Acceptance Limits	
DCB Decachlorobiphenyl		132		47 - 176	
Tetrachloro-m-xylene		121		46 - 175	

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-1

Lab Sample ID: 480-47844-26

Date Sampled: 10/10/2013 1630

Client Matrix: Solid

% Moisture: 16.2

Date Received: 10/12/2013 0200

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	480-144916	Instrument ID:	HP5890-12
Prep Method:	3550C	Prep Batch:	480-144730	Initial Weight/Volume:	+2.43 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Analysis Date:	10/15/2013 1506			Injection Volume:	1 uL
Prep Date:	10/14/2013 1052			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		48	250
PCB-1221		ND		48	250
PCB-1232		ND		48	250
PCB-1242		ND		48	250
PCB-1248		ND		48	250
PCB-1254		ND		120	250
PCB-1260		ND		120	250

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	140		47 - 176
Tetrachloro-m-xylene	121		46 - 175

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-3

Lab Sample ID: 480-47844-27

Date Sampled: 10/10/2013 1725

Client Matrix: Solid

% Moisture: 18.6

Date Received: 10/12/2013 0200

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A      Analysis Batch: 480-144916      Instrument ID: HP5890-12  
Prep Method: 3550C      Prep Batch: 480-144730      Initial Weight/Volume: +2.54 g  
Dilution: 1.0      Final Weight/Volume: 10 mL  
Analysis Date: 10/15/2013 1521      Injection Volume: 1 uL  
Prep Date: 10/14/2013 1052      Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		47	240
PCB-1221		ND		47	240
PCB-1232		ND		47	240
PCB-1242		ND		47	240
PCB-1248		ND		47	240
PCB-1254		ND		110	240
PCB-1260		ND		110	240

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	122		47 - 176
Tetrachloro-m-xylene	115		46 - 175



**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: FB

Lab Sample ID: 480-47844-1FB

Date Sampled: 10/11/2013 1600

Client Matrix: Water

Date Received: 10/12/2013 0200

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**6010C Metals (ICP)**

Analysis Method: 6010C  
Prep Method: 3005A  
Dilution: 1.0  
Analysis Date: 10/18/2013 1335  
Prep Date: 10/14/2013 0845

Analysis Batch: 480-146331  
Prep Batch: 480-144634

Instrument ID: ICAP2  
Lab File ID: N/A  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

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Analyte	Result (mg/L)	Qualifier	MDL	RL
Lead	ND		0.0030	0.0050

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Analysis Method: 6010C  
Prep Method: 3005A  
Dilution: 1.0  
Analysis Date: 10/23/2013 2259  
Prep Date: 10/21/2013 0825

Analysis Batch: 480-147235  
Prep Batch: 480-146115

Instrument ID: ICAP2  
Lab File ID: I2102313A-6.asc  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

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Analyte	Result (mg/L)	Qualifier	MDL	RL
Silver	ND		0.0017	0.0030

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**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-6

Lab Sample ID: 480-47844-3

Date Sampled: 10/11/2013 1145

Client Matrix: Solid

% Moisture: 11.7

Date Received: 10/12/2013 0200

**6010C Metals (ICP)**

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.4976 g

Analysis Date: 10/14/2013 2217

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		21.8	B	0.27	1.1
Silver		ND		0.23	0.57

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-5

Lab Sample ID: 480-47844-4

Date Sampled: 10/11/2013 1230

Client Matrix: Solid

% Moisture: 26.8

Date Received: 10/12/2013 0200

**6010C Metals (ICP)**

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.4522 g

Analysis Date: 10/14/2013 2220

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		21.1	-B	0.36	1.5
Silver		ND		0.30	0.75

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-12

Lab Sample ID: 480-47844-5

Date Sampled: 10/11/2013 1420

Client Matrix: Solid

% Moisture: 9.4

Date Received: 10/12/2013 0200

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**6010C Metals (ICP)**

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.4600 g

Analysis Date: 10/14/2013 2222

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		23.8	B	0.29	1.2
Silver		ND		0.24	0.60

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-19

Lab Sample ID: 480-47844-6

Date Sampled: 10/11/2013 1520

Client Matrix: Solid

% Moisture: 16.4

Date Received: 10/12/2013 0200

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.5388 g

Analysis Date: 10/14/2013 2242

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		17.0	B*	0.27	1.1
Silver		ND		0.22	0.56

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-16

Lab Sample ID: 480-47844-7

Date Sampled: 10/11/2013 1000

Client Matrix: Solid

% Moisture: 11.7

Date Received: 10/12/2013 0200

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**6010C Metals (ICP)**

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.5236 g

Analysis Date: 10/14/2013 2244

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		25.0	B	0.26	1.1
Silver		ND		0.22	0.54

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-15

Lab Sample ID: 480-47844-8

Date Sampled: 10/11/2013 1120

Client Matrix: Solid

% Moisture: 19.4

Date Received: 10/12/2013 0200

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.4690 g

Analysis Date: 10/14/2013 2247

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		1090	BA J	0.32	1.3
Silver		ND		0.26	0.66

# Client Sample Results

Client: ARCADIS U.S., Inc.  
Project/Site: Surface Soil Sampling - Utica

TestAmerica Job ID: 480-47844-1

**Client Sample ID: LMCU-SS-15**

**Lab Sample ID: 480-47844-8**

Date Collected: 10/11/13 11:20

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 80.6

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		6.2	0.47	ug/Kg	*	10/22/13 02:35	10/24/13 03:24	1
trans-1,2-Dichloroethene	ND		6.2	0.64	ug/Kg	*	10/22/13 02:35	10/24/13 03:24	1
trans-1,3-Dichloropropene	ND		6.2	2.7	ug/Kg	*	10/22/13 02:35	10/24/13 03:24	1
Trichloroethene	ND		6.2	1.4	ug/Kg	*	10/22/13 02:35	10/24/13 03:24	1
Trichlorofluoromethane	ND		6.2	0.58	ug/Kg	*	10/22/13 02:35	10/24/13 03:24	1
Vinyl chloride	ND		6.2	0.75	ug/Kg	*	10/22/13 02:35	10/24/13 03:24	1
Xylenes, Total	ND		12	1.0	ug/Kg	*	10/22/13 02:35	10/24/13 03:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	107		71 - 125	10/22/13 02:35	10/24/13 03:24	1
1,2-Dichloroethane-d4 (Surr)	104		64 - 126	10/22/13 02:35	10/24/13 03:24	1
4-Bromofluorobenzene (Surr)	111		72 - 126	10/22/13 02:35	10/24/13 03:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		280	54	ug/Kg	*	10/14/13 10:44	10/15/13 22:00	1
PCB-1221	ND		280	54	ug/Kg	*	10/14/13 10:44	10/15/13 22:00	1
PCB-1232	ND		280	54	ug/Kg	*	10/14/13 10:44	10/15/13 22:00	1
PCB-1242	ND		280	54	ug/Kg	*	10/14/13 10:44	10/15/13 22:00	1
PCB-1248	ND		280	54	ug/Kg	*	10/14/13 10:44	10/15/13 22:00	1
PCB-1254	350		280	130	ug/Kg	*	10/14/13 10:44	10/15/13 22:00	1
PCB-1260	ND		280	130	ug/Kg	*	10/14/13 10:44	10/15/13 22:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	106		47 - 176	10/14/13 10:44	10/15/13 22:00	1
Tetrachloro-m-xylene	111		46 - 175	10/14/13 10:44	10/15/13 22:00	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	37.7		1.3	0.32	mg/Kg	*	11/26/13 14:35	11/27/13 12:15	1
Silver	ND		0.66	0.26	mg/Kg	*	10/12/13 11:40	10/14/13 22:47	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.50	0.12	mg/Kg	*	10/16/13 10:42	10/18/13 12:27	1
Cyanide, Total	ND		1.2	0.57	mg/Kg	*	10/17/13 16:35	10/18/13 14:32	1

**Client Sample ID: LMCU-SS-10**

**Lab Sample ID: 480-47844-9**

Date Collected: 10/10/13 17:50

Matrix: Solid

Date Received: 10/12/13 02:00

Percent Solids: 87.6

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		6.2	0.45	ug/Kg	*	10/22/13 02:35	10/24/13 04:40	1
1,1,1,2-Tetrachloroethane	ND		6.2	1.0	ug/Kg	*	10/22/13 02:35	10/24/13 04:40	1
1,1,2-Trichloroethane	ND		6.2	0.81	ug/Kg	*	10/22/13 02:35	10/24/13 04:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.2	1.4	ug/Kg	*	10/22/13 02:35	10/24/13 04:40	1
1,1-Dichloroethane	ND		6.2	0.76	ug/Kg	*	10/22/13 02:35	10/24/13 04:40	1
1,1-Dichloroethene	ND		6.2	0.76	ug/Kg	*	10/22/13 02:35	10/24/13 04:40	1
1,2,4-Trichlorobenzene	ND		6.2	0.38	ug/Kg	*	10/22/13 02:35	10/24/13 04:40	1
1,2-Dibromo-3-Chloropropane	ND		6.2	3.1	ug/Kg	*	10/22/13 02:35	10/24/13 04:40	1

TestAmerica Buffalo



**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-10

Lab Sample ID: 480-47844-9

Date Sampled: 10/10/2013 1750

Client Matrix: Solid

% Moisture: 12.4

Date Received: 10/12/2013 0200

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**6010C Metals (ICP)**

Analysis Method:	6010C	Analysis Batch:	480-144987	Instrument ID:	ICAP1
Prep Method:	3050B	Prep Batch:	480-144541	Lab File ID:	I1101413A-6.asc
Dilution:	1.0			Initial Weight/Volume:	+0.5094 g
Analysis Date:	10/14/2013 2254			Final Weight/Volume:	50 mL
Prep Date:	10/12/2013 1140				

---

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		12.2	BA	0.27	1.1
Silver		ND		0.22	0.56

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# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-17

Lab Sample ID: 480-47844-10

Date Sampled: 10/10/2013 1650

Client Matrix: Solid

% Moisture: 12.0

Date Received: 10/12/2013 0200

## 6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.4868 g

Analysis Date: 10/14/2013 2256

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		14.0	B <sup>u</sup>	0.28	1.2
Silver		ND		0.23	0.58

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-13

Lab Sample ID: 480-47844-11

Date Sampled: 10/10/2013 1714

Client Matrix: Solid

% Moisture: 11.1

Date Received: 10/12/2013 0200

## 6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.5007 g

Analysis Date: 10/14/2013 2259

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		24.8	B	0.27	1.1
Silver		ND		0.22	0.56

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-18

Lab Sample ID: 480-47844-13

Date Sampled: 10/10/2013 0950

Client Matrix: Solid

% Moisture: 4.3

Date Received: 10/12/2013 0200

6010C Metals (ICP)

Analysis Method: 6010C      Analysis Batch: 480-144987      Instrument ID: ICAP1  
Prep Method: 3050B      Prep Batch: 480-144541      Lab File ID: I1101413A-6.asc  
Dilution: 1.0      Initial Weight/Volume: +0.4828 g  
Analysis Date: 10/14/2013 2309      Final Weight/Volume: 50 mL  
Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		ND		0.22	0.54

Analysis Method: 6010C      Analysis Batch: 480-145915      Instrument ID: ICAP2  
Prep Method: 3050B      Prep Batch: 480-144541      Lab File ID: I2101713A-2.asc  
Dilution: 1.0      Initial Weight/Volume: +0.4828 g  
Analysis Date: 10/17/2013 1855      Final Weight/Volume: 50 mL  
Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		3.0	B	0.26	1.1

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-11

Lab Sample ID: 480-47844-14

Date Sampled: 10/10/2013 1120

Client Matrix: Solid

% Moisture: 16.6

Date Received: 10/12/2013 0200

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.4979 g

Analysis Date: 10/14/2013 2311

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		18.2	B*	0.29	1.2
Silver		ND		0.24	0.60

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-14

Lab Sample ID: 480-47844-15

Date Sampled: 10/10/2013 1330

Client Matrix: Solid

% Moisture: 15.0

Date Received: 10/12/2013 0200

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.4885 g

Analysis Date: 10/14/2013 2313

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		17.3	BA	0.29	1.2
Silver		ND		0.24	0.60

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-28

Lab Sample ID: 480-47844-16

Date Sampled: 10/10/2013 1520

Client Matrix: Solid

% Moisture: 4.8

Date Received: 10/12/2013 0200

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**6010C Metals (ICP)**

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.5512 g

Analysis Date: 10/14/2013 2316

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		16.1	B	0.23	0.95
Silver		ND		0.19	0.48

### Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: DUP-1

Lab Sample ID: 480-47844-19FD

Date Sampled: 10/11/2013 0000

Client Matrix: Solid

% Moisture: 9.3

Date Received: 10/12/2013 0200

#### 6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.5138 g

Analysis Date: 10/14/2013 2318

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		16.6	B** )	0.26	1.1
Silver		ND		0.21	0.54



# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: DUP-2

Lab Sample ID: 480-47844-20FD

Date Sampled: 10/11/2013 0000

Client Matrix: Solid

% Moisture: 20.1

Date Received: 10/12/2013 0200

## 6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.4808 g

Analysis Date: 10/14/2013 2321

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		18.4	BA J	0.31	1.3
Silver		ND		0.26	0.65

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-9

Lab Sample ID: 480-47844-21

Date Sampled: 10/10/2013 1155

Client Matrix: Solid

% Moisture: 27.5

Date Received: 10/12/2013 0200

## 6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.4729 g

Analysis Date: 10/14/2013 2323

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		27.3	B	0.35	1.5
Silver		ND		0.29	0.73

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-8

Lab Sample ID: 480-47844-22

Date Sampled: 10/10/2013 1220

Client Matrix: Solid

% Moisture: 36.8

Date Received: 10/12/2013 0200

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.4574 g

Analysis Date: 10/14/2013 2326

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		29.3	B	0.42	1.7
Silver		ND		0.35	0.87

# Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-7

Lab Sample ID: 480-47844-23

Date Sampled: 10/10/2013 1255

Client Matrix: Solid

% Moisture: 17.3

Date Received: 10/12/2013 0200

## 6010C Metals (ICP)

Analysis Method: 6010C  
Prep Method: 3050B  
Dilution: 1.0  
Analysis Date: 10/14/2013 2328  
Prep Date: 10/12/2013 1140

Analysis Batch: 480-144987  
Prep Batch: 480-144541

Instrument ID: ICAP1  
Lab File ID: I1101413A-6.asc  
Initial Weight/Volume: +0.5197 g  
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		8.7	B <sup>+</sup> }	0.28	1.2
Silver		ND		0.23	0.58

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-4

Lab Sample ID: 480-47844-24

Date Sampled: 10/10/2013 1335

Client Matrix: Solid

% Moisture: 29.6

Date Received: 10/12/2013 0200

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**6010C Metals (ICP)**

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.4999 g

Analysis Date: 10/14/2013 2338

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWT Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		35.7	B	0.34	1.4
Silver		ND		0.28	0.71

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-2

Lab Sample ID: 480-47844-25

Date Sampled: 10/10/2013 1550

Client Matrix: Solid

% Moisture: 20.7

Date Received: 10/12/2013 0200

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**6010C Metals (ICP)**

Analysis Method: 6010C

Analysis Batch: 480-144987

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144541

Lab File ID: I1101413A-6.asc

Dilution: 1.0

Initial Weight/Volume: +0.4439 g

Analysis Date: 10/14/2013 2340

Final Weight/Volume: 50 mL

Prep Date: 10/12/2013 1140

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		21.0	B J	0.34	1.4
Silver		ND		0.28	0.71

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-1

Lab Sample ID: 480-47844-26

Date Sampled: 10/10/2013 1630

Client Matrix: Solid

% Moisture: 16.2

Date Received: 10/12/2013 0200

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**6010C Metals (ICP)**

Analysis Method: 6010C  
Prep Method: 3050B  
Dilution: 1.0  
Analysis Date: 10/17/2013 1523  
Prep Date: 10/14/2013 1415

Analysis Batch: 480-145858  
Prep Batch: 480-144782

Instrument ID: ICAP1  
Lab File ID: I1101713A-5.asc  
Initial Weight/Volume: +0.5082 g  
Final Weight/Volume: 50 mL

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Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		13.4	J	0.28	1.2
Silver		ND		0.23	0.59

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**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

Client Sample ID: LMCU-SS-3

Lab Sample ID: 480-47844-27

Date Sampled: 10/10/2013 1725

Client Matrix: Solid

% Moisture: 18.6

Date Received: 10/12/2013 0200

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**6010C Metals (ICP)**

Analysis Method: 6010C

Analysis Batch: 480-145858

Instrument ID: ICAP1

Prep Method: 3050B

Prep Batch: 480-144782

Lab File ID: I1101713A-5.asc

Dilution: 1.0

Initial Weight/Volume: +0.4654 g

Analysis Date: 10/17/2013 1526

Final Weight/Volume: 50 mL

Prep Date: 10/14/2013 1415

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Lead		24.1	J	0.32	1.3
Silver		ND		0.26	0.66



**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

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**General Chemistry**

Client Sample ID: FB

Lab Sample ID: 480-47844-1FB

Client Matrix: Water

Date Sampled: 10/11/2013 1600

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Chromium, hexavalent	ND		mg/L	0.0050	0.010	1.0	7196A
	Analysis Batch: 480-144575	Analysis Date: 10/12/2013 1300					
Cyanide, Total	ND		mg/L	0.0050	0.010	1.0	9012B
	Analysis Batch: 480-145633	Analysis Date: 10/17/2013 0954					
	Prep Batch: 480-145153	Prep Date: 10/15/2013 2042					

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

General Chemistry

Client Sample ID: LMCU-SS-6

Lab Sample ID: 480-47844-3

Date Sampled: 10/11/2013 1145

Client Matrix: Solid

% Moisture: 11.7

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.33	J	mg/Kg	0.11	0.45	1.0	7196A
	Analysis Batch: 180-87147			Analysis Date: 10/18/2013 1505			DryWt Corrected: Y
	Prep Batch: 180-86851			Prep Date: 10/16/2013 1025			
Cyanide, Total	ND		mg/Kg	0.51	1.1	1.0	9012B
	Analysis Batch: 480-145761			Analysis Date: 10/17/2013 2003			DryWt Corrected: Y
	Prep Batch: 480-145692			Prep Date: 10/17/2013 0945			
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N
Percent Solids	88		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

**General Chemistry**

Client Sample ID: LMCU-SS-5

Lab Sample ID: 480-47844-4

Client Matrix: Solid

% Moisture: 26.8

Date Sampled: 10/11/2013 1230

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.48	J	mg/Kg	0.14	0.54	1.0	7196A
	Analysis Batch: 180-87147	Analysis Date: 10/18/2013 1507					DryWt Corrected: Y
	Prep Batch: 180-86851	Prep Date: 10/16/2013 1025					
Cyanide, Total	ND		mg/Kg	0.61	1.3	1.0	9012B
	Analysis Batch: 480-145761	Analysis Date: 10/17/2013 2004					DryWt Corrected: Y
	Prep Batch: 480-145692	Prep Date: 10/17/2013 0945					
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	27		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560	Analysis Date: 10/12/2013 1306					DryWt Corrected: N
Percent Solids	73		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560	Analysis Date: 10/12/2013 1306					DryWt Corrected: N

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

**General Chemistry**

Client Sample ID: LMCU-SS-12

Lab Sample ID: 480-47844-5

Client Matrix: Solid

% Moisture: 9.4

Date Sampled: 10/11/2013 1420

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.11	J	mg/Kg	0.11	0.44	1.0	7196A
	Analysis Batch: 180-87147			Analysis Date: 10/18/2013 1454			DryWt Corrected: Y
	Prep Batch: 180-86851			Prep Date: 10/16/2013 1025			
Cyanide, Total	ND		mg/Kg	0.53	1.1	1.0	9012B
	Analysis Batch: 480-145761			Analysis Date: 10/17/2013 2005			DryWt Corrected: Y
	Prep Batch: 480-145692			Prep Date: 10/17/2013 0945			
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.4		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N
Percent Solids	91		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

General Chemistry

Client Sample ID: LMCU-SS-19

Lab Sample ID: 480-47844-6

Client Matrix: Solid

% Moisture: 16.4

Date Sampled: 10/11/2013 1520

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.42	J	mg/Kg	0.12	0.47	1.0	7196A
	Analysis Batch: 180-87147			Analysis Date: 10/18/2013 1509			DryWt Corrected: Y
	Prep Batch: 180-86851			Prep Date: 10/16/2013 1025			
Cyanide, Total	ND		mg/Kg	0.56	1.1	1.0	9012B
	Analysis Batch: 480-146030			Analysis Date: 10/18/2013 1440			DryWt Corrected: Y
	Prep Batch: 480-145760			Prep Date: 10/17/2013 1635			
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	16		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N
Percent Solids	84		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

**General Chemistry**

Client Sample ID: LMCU-SS-16

Lab Sample ID: 480-47844-7

Client Matrix: Solid

% Moisture: 11.7

Date Sampled: 10/11/2013 1000

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.83		mg/Kg	0.11	0.44	1.0	7196A
	Analysis Batch: 180-87147			Analysis Date: 10/18/2013 1510			DryWt Corrected: Y
	Prep Batch: 180-86851			Prep Date: 10/16/2013 1025			
Cyanide, Total	ND		mg/Kg	0.50	1.0	1.0	9012B
	Analysis Batch: 480-145761			Analysis Date: 10/17/2013 2008			DryWt Corrected: Y
	Prep Batch: 480-145692			Prep Date: 10/17/2013 0945			
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N
Percent Solids	88		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

**General Chemistry**

Client Sample ID: LMCU-SS-15

Lab Sample ID: 480-47844-8

Client Matrix: Solid

% Moisture: 19.4

Date Sampled: 10/11/2013 1120

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	ND		mg/Kg	0.12	0.50	1.0	7196A
	Analysis Batch: 180-87125			Analysis Date: 10/18/2013 1227			DryWt Corrected: Y
	Prep Batch: 180-86856			Prep Date: 10/16/2013 1042			
Cyanide, Total	ND		mg/Kg	0.57	1.2	1.0	9012B
	Analysis Batch: 480-146030			Analysis Date: 10/18/2013 1432			DryWt Corrected: Y
	Prep Batch: 480-145760			Prep Date: 10/17/2013 1635			

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	19		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N
Percent Solids	81		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

**General Chemistry**

Client Sample ID: LMCU-SS-10

Lab Sample ID: 480-47844-9

Client Matrix: Solid

% Moisture: 12.4

Date Sampled: 10/10/2013 1750

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.55		mg/Kg	0.11	0.45	1.0	7196A
	Analysis Batch: 180-87147			Analysis Date: 10/18/2013 1512			DryWt Corrected: Y
	Prep Batch: 180-86851			Prep Date: 10/16/2013 1025			
Cyanide, Total	ND		mg/Kg	0.51	1.1	1.0	9012B
	Analysis Batch: 480-146030			Analysis Date: 10/18/2013 1437			DryWt Corrected: Y
	Prep Batch: 480-145760			Prep Date: 10/17/2013 1635			
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N
Percent Solids	88		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N



Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

General Chemistry

Client Sample ID: LMCU-SS-17

Lab Sample ID: 480-47844-10

Date Sampled: 10/10/2013 1650

Client Matrix: Solid

% Moisture: 12.0

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	1.2		mg/Kg	0.12	0.46	1.0	7196A
	Analysis Batch: 180-87147			Analysis Date: 10/18/2013 1514			DryWt Corrected: Y
	Prep Batch: 180-86851			Prep Date: 10/16/2013 1025			
Cyanide, Total	ND		mg/Kg	0.52	1.1	1.0	9012B
	Analysis Batch: 480-146030			Analysis Date: 10/18/2013 1435			DryWt Corrected: Y
	Prep Batch: 480-145760			Prep Date: 10/17/2013 1635			
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N
Percent Solids	88		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

General Chemistry

Client Sample ID: LMCU-SS-13

Lab Sample ID: 480-47844-11

Client Matrix: Solid

% Moisture: 11.1

Date Sampled: 10/10/2013 1714

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.77		mg/Kg	0.11	0.45	1.0	7196A
	Analysis Batch: 180-87147			Analysis Date: 10/18/2013 1515			DryWt Corrected: Y
	Prep Batch: 180-86851			Prep Date: 10/16/2013 1025			
Cyanide, Total	ND		mg/Kg	0.51	1.1	1.0	9012B
	Analysis Batch: 480-146030			Analysis Date: 10/18/2013 1441			DryWt Corrected: Y
	Prep Batch: 480-145760			Prep Date: 10/17/2013 1635			
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	11		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N
Percent Solids	89		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

**General Chemistry**

Client Sample ID: LMCU-SS-18

Lab Sample ID: 480-47844-13

Client Matrix: Solid

% Moisture: 4.3

Date Sampled: 10/10/2013 0950

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.77		mg/Kg	0.10	0.41	1.0	7196A
	Analysis Batch: 180-87147			Analysis Date: 10/18/2013 1517			DryWt Corrected: Y
	Prep Batch: 180-86851			Prep Date: 10/16/2013 1025			
Cyanide, Total	ND		mg/Kg	0.48	1.0	1.0	9012B
	Analysis Batch: 480-146030			Analysis Date: 10/18/2013 1436			DryWt Corrected: Y
	Prep Batch: 480-145760			Prep Date: 10/17/2013 1635			
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.3		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N
Percent Solids	96		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

**General Chemistry**

Client Sample ID: LMCU-SS-11

Lab Sample ID: 480-47844-14

Date Sampled: 10/10/2013 1120

Client Matrix: Solid

% Moisture: 16.6

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.58		mg/Kg	0.12	0.48	1.0	7196A
	Analysis Batch: 180-87147		Analysis Date: 10/18/2013 1519				DryWt Corrected: Y
	Prep Batch: 180-86851		Prep Date: 10/16/2013 1025				
Cyanide, Total	1.2		mg/Kg	0.57	1.2	1.0	9012B
	Analysis Batch: 480-146030		Analysis Date: 10/18/2013 1438				DryWt Corrected: Y
	Prep Batch: 480-145760		Prep Date: 10/17/2013 1635				

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	17		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N
Percent Solids	83		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

**General Chemistry**

Client Sample ID: LMCU-SS-14  
 Lab Sample ID: 480-47844-15  
 Client Matrix: Solid

% Moisture: 15.0

Date Sampled: 10/10/2013 1330  
 Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.12	J	mg/Kg	0.12	0.48	1.0	7196A
	Analysis Batch: 180-87125		Analysis Date: 10/18/2013 1238				DryWt Corrected: Y
	Prep Batch: 180-86856		Prep Date: 10/16/2013 1042				
Cyanide, Total	ND		mg/Kg	0.54	1.1	1.0	9012B
	Analysis Batch: 480-146030		Analysis Date: 10/18/2013 1442				DryWt Corrected: Y
	Prep Batch: 480-145760		Prep Date: 10/17/2013 1635				

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N
Percent Solids	85		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

### General Chemistry

Client Sample ID: LMCU-SS-28

Lab Sample ID: 480-47844-16

Date Sampled: 10/10/2013 1520

Client Matrix: Solid

% Moisture: 4.8

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.17	J	mg/Kg	0.10	0.41	1.0	7196A
	Analysis Batch: 180-87125		Analysis Date: 10/18/2013 1239				DryWt Corrected: Y
	Prep Batch: 180-86856		Prep Date: 10/16/2013 1042				
Cyanide, Total	ND		mg/Kg	0.50	1.0	1.0	9012B
	Analysis Batch: 480-146030		Analysis Date: 10/18/2013 1443				DryWt Corrected: Y
	Prep Batch: 480-145760		Prep Date: 10/17/2013 1635				
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.8		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N
Percent Solids	95		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

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**General Chemistry**

Client Sample ID: DUP-1

Lab Sample ID: 480-47844-19FD

Date Sampled: 10/11/2013 0000

Client Matrix: Solid

% Moisture: 9.3

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.11	J	mg/Kg	0.11	0.44	1.0	7196A
	Analysis Batch: 180-87125		Analysis Date: 10/18/2013 1241				DryWt Corrected: Y
	Prep Batch: 180-86856		Prep Date: 10/16/2013 1042				
Cyanide, Total	ND		mg/Kg	0.49	1.0	1.0	9012B
	Analysis Batch: 480-146030		Analysis Date: 10/18/2013 1444				DryWt Corrected: Y
	Prep Batch: 480-145760		Prep Date: 10/17/2013 1635				
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.3		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N
Percent Solids	91		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

General Chemistry

Client Sample ID: DUP-2

Lab Sample ID: 480-47844-20FD

Date Sampled: 10/11/2013 0000

Client Matrix: Solid

% Moisture: 20.1

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	ND		mg/Kg	0.13	0.50	1.0	7196A
	Analysis Batch: 180-87125		Analysis Date: 10/18/2013 1243				DryWt Corrected: Y
	Prep Batch: 180-86856		Prep Date: 10/16/2013 1042				
Cyanide, Total	ND		mg/Kg	0.56	1.2	1.0	9012B
	Analysis Batch: 480-146030		Analysis Date: 10/18/2013 1444				DryWt Corrected: Y
	Prep Batch: 480-145760		Prep Date: 10/17/2013 1635				
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	20		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N
Percent Solids	80		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N



**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

**General Chemistry**

Client Sample ID: LMCU-SS-9

Lab Sample ID: 480-47844-21

Date Sampled: 10/10/2013 1155

Client Matrix: Solid

% Moisture: 27.5

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.50	J	mg/Kg	0.14	0.55	1.0	7196A
	Analysis Batch: 180-87125			Analysis Date: 10/18/2013 1244			DryWt Corrected: Y
	Prep Batch: 180-86856			Prep Date: 10/16/2013 1042			
Cyanide, Total	ND		mg/Kg	0.66	1.4	1.0	9012B
	Analysis Batch: 480-146030			Analysis Date: 10/18/2013 1447			DryWt Corrected: Y
	Prep Batch: 480-145760			Prep Date: 10/17/2013 1635			
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	28		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N
Percent Solids	72		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

### General Chemistry

**Client Sample ID:** LMCU-SS-8

**Lab Sample ID:** 480-47844-22

Date Sampled: 10/10/2013 1220

**Client Matrix:** Solid

% Moisture: 36.8

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.47	J	mg/Kg	0.16	0.64	1.0	7196A
	Analysis Batch: 180-87125		Analysis Date: 10/18/2013 1246				DryWt Corrected: Y
	Prep Batch: 180-86856		Prep Date: 10/16/2013 1042				
Cyanide, Total	ND		mg/Kg	0.73	1.5	1.0	9012B
	Analysis Batch: 480-146030		Analysis Date: 10/18/2013 1536				DryWt Corrected: Y
	Prep Batch: 480-145987		Prep Date: 10/18/2013 1015				
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	37		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N
Percent Solids	63		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

### General Chemistry

Client Sample ID: LMCU-SS-7

Lab Sample ID: 480-47844-23

Date Sampled: 10/10/2013 1255

Client Matrix: Solid

% Moisture: 17.3

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.12	J	mg/Kg	0.12	0.49	1.0	7196A
	Analysis Batch: 180-87125		Analysis Date: 10/18/2013 1247				DryWt Corrected: Y
	Prep Batch: 180-86856		Prep Date: 10/16/2013 1042				
Cyanide, Total	ND		mg/Kg	0.56	1.2	1.0	9012B
	Analysis Batch: 480-146964		Analysis Date: 10/23/2013 1155				DryWt Corrected: Y
	Prep Batch: 480-146734		Prep Date: 10/22/2013 1949				
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	17		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N
Percent Solids	83		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

General Chemistry

Client Sample ID: LMCU-SS-4

Lab Sample ID: 480-47844-24

Date Sampled: 10/10/2013 1335

Client Matrix: Solid

% Moisture: 29.6

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	1.4		mg/Kg	0.14	0.58	1.0	7196A
	Analysis Batch: 180-87125			Analysis Date: 10/18/2013 1252			DryWt Corrected: Y
	Prep Batch: 180-86856			Prep Date: 10/16/2013 1042			
Cyanide, Total	ND		mg/Kg	0.67	1.4	1.0	9012B
	Analysis Batch: 480-146030			Analysis Date: 10/18/2013 1538			DryWt Corrected: Y
	Prep Batch: 480-145987			Prep Date: 10/18/2013 1015			
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	30		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N
Percent Solids	70		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560			Analysis Date: 10/12/2013 1306			DryWt Corrected: N

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

### General Chemistry

Client Sample ID: LMCU-SS-2

Lab Sample ID: 480-47844-25

Client Matrix: Solid

% Moisture: 20.7

Date Sampled: 10/10/2013 1550

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	0.79		mg/Kg	0.13	0.51	1.0	7196A
	Analysis Batch: 180-87125		Analysis Date: 10/18/2013 1254				DryWt Corrected: Y
	Prep Batch: 180-86856		Prep Date: 10/16/2013 1042				
Cyanide, Total	ND		mg/Kg	0.56	1.2	1.0	9012B
	Analysis Batch: 480-146030		Analysis Date: 10/18/2013 1448				DryWt Corrected: Y
	Prep Batch: 480-145760		Prep Date: 10/17/2013 1635				
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	21		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N
Percent Solids	79		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

**General Chemistry**

Client Sample ID: LMCU-SS-1

Lab Sample ID: 480-47844-26

Date Sampled: 10/10/2013 1630

Client Matrix: Solid

% Moisture: 16.2

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	2.0		mg/Kg	0.12	0.47	1.0	7196A DryWt Corrected: Y
	Analysis Batch: 180-87125		Analysis Date: 10/18/2013 1255				
	Prep Batch: 180-86856		Prep Date: 10/16/2013 1042				
Cyanide, Total	ND		mg/Kg	0.56	1.2	1.0	9012B DryWt Corrected: Y
	Analysis Batch: 480-146030		Analysis Date: 10/18/2013 1539				
	Prep Batch: 480-145987		Prep Date: 10/18/2013 1015				
Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	16		%	0.10	0.10	1.0	Moisture DryWt Corrected: N
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				
Percent Solids	84		%	0.10	0.10	1.0	Moisture DryWt Corrected: N
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				

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**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 480-47844-1

**General Chemistry**

Client Sample ID: LMCU-SS-3

Lab Sample ID: 480-47844-27

Date Sampled: 10/10/2013 1725

Client Matrix: Solid

% Moisture: 18.6

Date Received: 10/12/2013 0200

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Cr (VI)	1.4		mg/Kg	0.12	0.49	1.0	7196A
	Analysis Batch: 180-87125		Analysis Date: 10/18/2013 1257				DryWt Corrected: Y
	Prep Batch: 180-86856		Prep Date: 10/16/2013 1042				
Cyanide, Total	ND		mg/Kg	0.52	1.1	1.0	9012B
	Analysis Batch: 480-146030		Analysis Date: 10/18/2013 1540				DryWt Corrected: Y
	Prep Batch: 480-145987		Prep Date: 10/18/2013 1015				

Analyte	Result	Qual	Units	RL <sub>1</sub>	RL	Dil	Method
Percent Moisture	19		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N
Percent Solids	81		%	0.10	0.10	1.0	Moisture
	Analysis Batch: 480-144560		Analysis Date: 10/12/2013 1306				DryWt Corrected: N

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt \_\_\_\_\_

Drinking Water? Yes  No

## Chain of Custody Record

TAL-4124 (1007)

Client: Apex Project Manager: D. Zerk Date: 10/11/13 Chain of Custody Number: 231371  
 Address: 6723 Tompkins Rd Telephone Number (Area Code)/Fax Number: 516-369-2741/315-671-919 Lab Number: \_\_\_\_\_ Page: 1 of 2  
 City: Spartanburg State: SC Zip Code: 29214 Site Contact: D. Zerk Lab Contact: C. Fox Analysis (Attach list if more space is needed):  
 Project Name and Location (State): LMC UTRCN MP Carrier/Waybill Number: \_\_\_\_\_  
 Contract/Purchase Order/Quote No.: \_\_\_\_\_

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Special Instructions/ Conditions of Receipt				
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH		#			
FB	10/11/13	1600	X														
TB	10/11/13		X														
LMCU-SS-6	10/11/13	1145				X											
" " - 5		1230				X											
" " - 12		1420				X											MS/MSD
" " - 14		1520				X											
" " - 16		1000				X											
" " - 15		1120				X											MS/MSD
" " - 10	10/14/13	1730				X											
" " - 17		1650				X											
" " - 13		1714				X											
" " - 21	10/11/13	1430				X											

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Other \_\_\_\_\_  
 Turn Around Time Required:  24 Hours  48 Hours  7 Days  14 Days  21 Days  Other \_\_\_\_\_  
 1. Requisitioned By: [Signature] Date: 10/11/13 Time: 1630  
 2. Requisitioned By: [Signature] Date: 10-11-13 Time: 1900  
 3. Requisitioned By: [Signature] Date: 10-11-13 Time: 1900  
 1. Received By: [Signature] Date: 10-11-13 Time: 6:30  
 2. Received By: [Signature] Date: 10-12-11 Time: 2200  
 3. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Comments: 2.1, 2.4, 3.6, 3.2 #1



Temperature on Receipt \_\_\_\_\_  
 Drinking Water? Yes  No

## Chain of Custody Record

TAL-4124 (1007)

Client: **Aradco**  
 Address: **6723 Tompkins Rd**  
 City: **Spokane WA** Zip Code: **99204**  
 Project Name and Location (State): **L-ML Utica**  
 Contract/Purchase Order/Quote No.: \_\_\_\_\_

Project Manager: **D. Zuck** Date: **10/11/13** Chain of Custody Number: **231373**  
 Telephone Number (Area Code)/Fax Number: **315-671-9152** Lab Number: \_\_\_\_\_ Page **2** of **2**  
 Site Contact: **D. Zuck** Lab Contact: **C. FOX**  
 Carrier/Waybill Number: \_\_\_\_\_

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives							Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt	
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc	#				
L-MLU-55- <del>16</del>	<del>10/10/13</del>						X										VOLs PCBS Metals CR (VE)
4	10/10/13	1120															
		1330															
		1520															
	10/9/13	1259															
	10/9/13	1200-1230															
	10/9/13	1230-1023															
DUP-1	10/11/13																
DUP-2	10/11/13																

Possible Hazard Identification:  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required:  
 24 Hours  48 Hours  7 Days  14 Days  21 Days  Other \_\_\_\_\_

QC Requirements (Specify): \_\_\_\_\_

1. Relinquished By: *[Signature]* Date: **10/11/13** Time: **16:30**  
 2. Relinquished By: *[Signature]* Date: **10-11-13** Time: **19:00**  
 3. Relinquished By: *[Signature]* Date: **10-12-13** Time: **02:00**

Comments: **2.1 2.4 3 6 3.2 #1**

11/19/2013

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt \_\_\_\_\_

Drinking Water? Yes  No

## Chain of Custody Record

TAL-4124 (1007)

Client: **Francis** Project Manager: **D. Zuch** Date: **10/11/13** Chain of Custody Number: **231372**  
 Address: **6773 Tompkins Rd** Telephone Number (Area Code)/Fax Number: **215-671-1152** Lab Number: **3** of **3**  
 City: **Smyrna** State: **GA** Zip Code: **30214** Site Contact: **PEAK** Lab Contact: **FOX** Page: **3** of **3**

Project Name and Location (State): **EMC AT 10A** Carrier/Waybill Number: \_\_\_\_\_  
 Contract/Purchase Order/Quote No.: \_\_\_\_\_

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					Special Instructions/ Conditions of Receipt		
			Air	Aqueous	Sed	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH			
LNCU-65-9	10/10/13	1155				X									
A		1226													
		1244													
		1234													
		1446													
		1626													
		1724													

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required	Date	Time	Received By	Date	Time
1. 24 Hours					
2. 7 Days					
3. 14 Days					
4. 21 Days					
5. Other					
1. Relinquished By	10/11/13	1030	[Signature]	10/11/13	16:30
2. Relinquished By	10/11/13	1940	[Signature]	10/22/13	1200
3. Relinquished By					

Comments: \_\_\_\_\_  
 Distribution: WHITE - Returned to Client with Report; CANARY - Slays with the Sample; PINK - Field Copy  
 2.1 2.1 3.6 3.2 #1