July 19, 2018

Ms. Kathy Evans
West Michigan Shoreline Regional Development Commission
316 Morris Avenue, Ste 340
Muskegon, Michigan 49440

Consulting Engineers and Scientists

Sent via email to KEvans@wmsrdc.org

RE: Phase II Soil and Groundwater Sampling
Muskegon Lake Nature Preserve, North Muskegon, Michigan

Dear Ms. Evans,

GEI Consultants of Michigan, P.C. (GEI) has prepared this summary report for the soil and groundwater sampling conducted at the Muskegon Lake Nature Preserve site in North Muskegon, Michigan. A Phase I Environmental Site Assessment (ESA) was conducted in 1994 by Westshore Engineering and identified several potential issues with the site. A Phase II ESA or Baseline Environmental Assessment (BEA) was not conducted at that time. However, Due Care Obligations may be necessary to secure restoration grant funds and to guide the engineering, design, and construction activities at the site.

The 1994 Phase I ESA provided to GEI by the West Michigan Shoreline Regional Development Commission (WMSRDC) identified several potential issues. These include:

- Use of foundry sand as fill on the site,
- Concrete and household waste deposited on the site,
- A small spill of tar-like material, and
- Adjacent petroleum pipelines and sewage treatment facility.

Foundry sand often contains elevated concentrations of metals. Concrete and household waste may contain volatile organic compounds, semi-volatile organic compounds, oils and greases, and polychlorinated biphenyls (PCBs), depending on the source of the material. The adjacent petroleum pipelines may contribute petroleum compounds to the subsurface.

Sampling was conducted in accordance with the work plan and cost estimate prepared by GEI for WMSRDC, and submitted on March 9, 2018.

Sampling Methods

GEI visited the site on June 4, 2018 to conduct the sampling. GEI staff walked the site with Ms. Kathy Evans of WMSRDC and Mr. Clair Verway of the Muskegon Lake Nature Preserve (MLNP). During this site walk, potential ideas for restoration of the site were discussed. Sampling of the soil and groundwater by GEI was then conducted in areas where potential ground

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disturbance may occur, based on the potential restoration activities at the site.

Soil samples were collected from 8 locations across the site, as illustrated on Figure 1. Sample locations were labeled as "MLNP-SS-X", where the SS represents "soil sample" and X represents the sample location. Samples were collected using a shovel to collect soil within the upper 3 feet of the surface. Soil samples were visually inspected for the presence of staining, discoloration, fill material, and noted for any odor. No staining or odor was observed during the collection of the samples. The locations of sample collection were marked using a Trimble GPS receiver with sub-meter accuracy. Soil at each location consisted of fine sand with organic material, and scattered pieces of concrete. Based on conversations with Ms. Evans and Mr.Verway, this sand is likely foundry sand fill material.

A representative sample from each location was collected and placed into laboratory-supplied sample containers with appropriate preservatives. A duplicate sample was collected at location MLNP-SS-4, and was labeled as MLNP-SS-4a. Samples were submitted for analysis of volatile organic compounds (EPA Method 8260), polynuclear aromatic hydrocarbons (EPA Method 8270), polychlorinated biphenyls (EPA Method 8082), and Michigan 10 metals (As, Ba, Cd, Cr, Cu, Pb, Hg, Se, Ag, and Zn) (EPA Method 6020/7470/7471).

Due to the proximity of the site to historic petroleum pipelines and the potential for releases from these pipelines to impact the subsurface of the site, GEI also collected groundwater samples from up to 3 locations across the site. Samples of the groundwater were collected from the shallow subsurface, generally less than 3 feet below ground surface, using a PushPoint sediment pore water sampling system. As with the soil samples, the locations of the groundwater samples were marked using a Trimble GPS receiver. Groundwater samples were collected and placed into laboratory-supplied sample containers with appropriate preservatives. Groundwater samples were submitted for analysis of volatile organic compounds (EPA Method 8260) and polynuclear aromatic hydrocarbons (EPA Method 8270). Samples were designated as "MLNP-GW-X" where the GW represents "groundwater" and the X represents the sample location.

Chain of custody procedures were initiated in the field at the time of sampling and accompanied the samples to the laboratory. Samples were delivered immediately following sampling activities to the Trace Analytical Laboratories in Muskegon, Michigan. A copy of the laboratory report for the submitted samples is included in Attachment A.

Soil Sample Results

Samples MLNP-SS-1 and MLNP-SS-2 contained acetone and methylene chloride. These compounds, however, are common laboratory cleaning agents and are likely related to laboratory contamination during analysis. No other volatile organic compounds (VOCs) were detected in the soil samples in excess of the laboratory reporting limits. Also, no polynuclear aromatic hydrocarbon (PNA) compounds or polychlorinated biphenyls (PCBs) were detected in the soil samples in excess of the laboratory reporting limits.

Samples were also analyzed for metals. Table 1 contains a summary of the soil sample results for metals. Two samples contained concentrations of metals which exceeded applicable cleanup criteria (Michigan Department of Environmental Quality Part 201 Generic Residential and Non-

Residential Cleanup Criteria and Screening Levels, December 30, 2013). For comparison, these criteria are listed on Table 1 alongside the concentrations of metals in the soil samples.

The sample MLNP-SS-6 contained selenium at 430 micrograms per kilogram (µg/kg) (parts per billion, or ppb). This concentration exceeds the Groundwater-Surface Water Interface (GSI) Protection criteria of 400 µg/kg and the Statewide Default Background concentration of 410 µg/kg. The sample MLNP-SS-7 contained arsenic at 4,800 µg/kg, which is in excess of the Residential Drinking Water Protection criteria and the GSI Protection criteria (both at 4,600 µg/kg).

The concentration of arsenic in MLNA-SS-7 is below the Statewide Default Background (SDB) concentration. According to Section 20a(10) of Part 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), when the background concentration of a hazardous substance is greater than the corresponding Part 201 risk-based clean-up criteria, the background concentration becomes the Part 201 criteria. Therefore, the concentrations of arsenic which exceed published clean-up criteria yet, which are present at or below the SDB do not create a "facility" condition at the property.

No other metals were detected at concentrations which exceeded applicable criteria.

Groundwater Sample Results

Volatile organic compounds were detected in two of the three groundwater samples collected from the site. Tetrachloroethene was detected in the sample MLNP-GW-8 at 3.4 micrograms per liter (µg/l), and in sample MLNP-GW-7 at 1.3 µg/l. These concentrations are below applicable MDEQ Part 201 Generic Cleanup Criteria, including Drinking Water (5 µg/l) and GSI (60 µg/l). No other VOCs were detected in the samples above the laboratory reporting limit. Likewise, no PNA compounds were detected in the groundwater samples above the laboratory reporting limit.

Due Care Responsibilities

Concentrations of selenium and arsenic in the two soil samples exceed the MDEQ unrestricted residential criteria. This makes the site a "facility" per Section 1(s) of NREPA, and is therefore subject to follow the Due Care obligations under Part 201, Section 20107a of the NREPA and Part 10 of the Part 201 Administrative Rules. "Due care" means that an owner or operator of a facility is required to take measures to prevent unacceptable exposures to hazardous substances or create conditions that worsen the contamination. With certain exceptions, an owner or operator of a facility is required to do all of the following with respect to contamination existing at the facility:

- Not worsen the existing contamination.
- Prevent unacceptable human exposure and reduce fire and explosion hazards to allow for the intended use of the facility that is protective of the public health and safety.
- Take reasonable precautions against the reasonably foreseeable acts or omissions of a third party.
- Provide notification to the DEQ and others,
- Provide reasonable cooperation, assistance, and access to the persons that are authorized

to conduct response activities at the property.
- Comply with any land use or resource use restrictions established or relied on in connection with the response activities.
- Not impede the effectiveness or integrity of any land use or resource use restriction.

Two soil samples contain concentrations of metals which are above applicable criteria.

Arsenic

The concentration of arsenic in the sample MLNP-SS-7 exceeds the Residential Drinking Water Protection Criteria and the GSI Protection criteria. However, the Statewide Default Background (SDB) is 5,800 ug/kg for arsenic. The SDB level takes precedence over the calculated risk-based criteria. Therefore, the site is not considered "contaminated" under Part 201 due to the arsenic concentration. Because the site does not meet the definition to be considered "contaminated" the installation of a well for potable use is not prohibited. Care should be taken when choosing the well location and depth. Any proposed well (potable or limited to irrigation use) should be tested to ensure arsenic levels are safe for the intended use prior to placing the well in service. The depth of the well, overburden and recharge capabilities should be considered so that potential contaminants at the surface of the aquifer are not introduced to a potable supply.

The concentration of arsenic also exceeds the GSI protection criteria, indicating that arsenic could leach from the soil, into the groundwater, and then into the surface water. Given the proximity of surface water to the soil at the site (both horizontally and vertically), this pathway could be complete. However, the concentration of arsenic is below the statewide default background concentration, and therefore no further action is necessary regarding the soil with elevated arsenic concentrations.

Selenium

The concentration of selenium in the sample MLNP-SS-6 exceeds the GSI protection criteria, as well as the statewide default background concentration. Due care responsibilities for this soil would include not moving the soil off site and covering the impacted soil with clean soil to prevent exposure and leaching.

However, since selenium at concentrations exceeding applicable criteria was only detected in one sample, and at a concentration just slightly above the applicable criteria, it may be possible to perform statistical analysis of the dataset to illustrate that this concentration is an outlier to the dataset. The MDEQ has procedures available which allow for statistical comparison of site data to statewide default background concentrations. Statistical analysis of the dataset may indicate that the concentration in MLNP-SS-6 is an outlier, and that no further action is necessary.

Conclusions and Recommendations for Restoration Activities

Soil samples were collected from 8 locations at the Muskegon Lake Nature Preserve, and groundwater samples from 3 locations. Only arsenic and selenium were detected in two soil samples at concentrations above applicable criteria. Arsenic was detected in one soil sample (MLNP-SS-7) at concentrations above the drinking water protection and GSI protection criteria, but below the statewide default background concentration. Therefore, arsenic is not considered

"contaminated" under Part 201. Selenium was detected in one soil sample (MLNP-SS-6) at a concentration above the GSI protection criteria and above the statewide background concentration. Therefore, the site is considered a "facility" under NREPA, and is therefore subject to follow the Due Care obligations under Part 201, Section 20107a.

Depending on the proposed restoration activities and the earthwork required to complete these activities, several options exist to conform to Due Care obligations. When a plan for restoration is finalized, additional sampling of the soil proposed to be excavated/moved should be conducted. Analysis of the soil may indicate concentrations below applicable criteria. Alternatively, a statistical analysis may indicate that any observed concentration levels may be outliers. In the worst case, analysis of the soil may indicate that the soil in the proposed restoration area is impacted. This soil would then need to be handled appropriately, based on the concentrations of metals in the samples. This handling may include removal of the soil to a landfill, re-use of the soil on site, covering the impacted soil with a cap, or placing a deed restriction on the property to restrict access to the soil impacts.

If you have any questions regarding the information provided in our work plan or cost proposal, please contact us at 517-803-2839 or 517-803-2836.

Sincerely,

Allan R. Blaske, P.G., CPG
Senior Project Geologist

Brian Majka
Senior Professional

Encl: Figure 1 – Soil and Groundwater Sample Locations
Table 1 – Soil Sample Analytical Results-Metals
Attachment A – Laboratory Report

Soil and Groundwater Sampling
Muskegon Lake Nature Preserve
Muskegon County, Michigan

West Michigan Shoreline
Regional Development Commission

0 200 400 600 Feet

1 inch = 400 feet

GEI Consultants

SOIL AND GROUNDWATER SAMPLE LOCATIONS JUNE 4, 2018

Project: 1801540 Figure: 1

K:\WMSRDC\1801540_MLNP_Phase II\GIS\MXD\20180508_LocationMap.mxd

Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

June, 2018

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS - Metals
Muskegon Lake Nature Preserve

							Part 201 Generic Cleanup Criteria*				
Sample ID	MLNP-SS-1	MLNP-SS-2	MLNP-SS-3	MLNP-SS-4	MLNP-SS-4a	MLNP-SS-5	Residential	Groundwater	Residential	Non-Residential	Statewide
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Drinking	Surface Water	Direct	Direct	Default
Date Collected	6/4/18	6/4/18	6/4/18	6/4/18	6/4/18	6/4/18	Water	Interface	Contact	Contact	Background
							Protection	Protection			
Total Metals (µg/Kg)	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**	**Conc.**					
Arsenic	1,500	590	1,600	2,000	2,200	3,600	4,600	4,600	7,600	37,000	5,800
Barium	11,000	3,400	12,000	17,000	24,000	20,000	1,300,000	(G)	37,000,000	130,000,000	75,000
Cadmium	980	<200	470	920	1,100	990	6,000	(G,X)	550,000	2,100,000	1,200
Chromium	9,800	<2,000	9,600	20,000	24,000	25,000	1,000,000,000	(G,X)	790,000,000	1,000,000,000	18,000
Copper	11,000	1,200	8,600	24,000	32,000	25,000	5,800,000	(G)	20,000,000	73,000,000	32,000
Lead	52,000	2,800	12,000	41,000	39,000	53,000	700,000	(G,X)	400,000	900,000	21,000
Selenium	200	<200	210	280	360	380	4,000	400	26,000,000	59,000,000	410
Silver	<100	<100	<100	<100	<100	<100	4,500	100 (M); 27	2,500,000	9,000,000	1,000
Zinc	72,000	5,000	15,000	43,000	45,000	39,000	2,400,000	(G)	170,000,000	630,000,000	47,000

							Part 201 Generic Cleanup Criteria*				
Sample ID	MLNP-SS-6	MLNP-SS-7	MLNP-SS-8				Residential	Groundwater	Residential	Non-Residential	Statewide
Matrix	Soil	Soil	Soil				Drinking	Surface Water	Direct	Direct	Default
Date Collected	6/4/18	6/4/18	6/4/18				Water	Interface	Contact	Contact	Background
							Protection	Protection			
Total Metals (µg/Kg)	**Conc.**	**Conc.**	**Conc.**								
Arsenic	4,300	4,800	630				4,600	4,600	7,600	37,000	5,800
Barium	24,000	7,400	13,000				1,300,000	(G)	37,000,000	130,000,000	75,000
Cadmium	1,300	2,400	240				6,000	(G,X)	550,000	2,100,000	1,200
Chromium	29,000	72,000	11,000				1,000,000,000	(G,X)	790,000,000	1,000,000,000	18,000
Copper	32,000	79,000	5,000				5,800,000	(G)	20,000,000	73,000,000	32,000
Lead	57,000	19,000	4,900				700,000	(G,X)	400,000	900,000	21,000
Selenium	430	200	<200				4,000	400	26,000,000	59,000,000	410
Silver	<100	<100	<100				4,500	100 (M); 27	2,500,000	9,000,000	1,000
Zinc	45,000	13,000	39,000				2,400,000	(G)	170,000,000	630,000,000	47,000

*Part 201 Generic Cleanup Criteria and Screening Levels, MDEQ Administrative Rules, December 30, 2013
G = GSI criteria depends on the pH or water hardness, or both, of the receiving surface water.
M = Calculated criteria is below the analytical target detection limit, therefore, the criteria defaults to the target detection limit.
X = GSI criteria in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.
Shaded cell indicates concentration exceeds one or more applicable criteria.

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June 18, 2018

Mr. Brian Majka
GEI Consultants of Michigan, P.C.
5225 Edgewater Drive
Allendale, MI 49401

Phone: (616) 384-2710

RE: Trace Project T18F057
Client Project MLNP

Dear Mr. Majka:

Enclosed are your analytical results. The results of this report relate only to the samples listed in the body of this report.

All reports were examined through Trace's validation process to ensure that requirements for quality and completeness were satisfied. All reported analytical results were obtained in accordance with the methods referenced on the reports. Every practical effort was made to meet the reporting limit specifications for this work, however, some results may have raised reporting limits to correct for percent solids.

For clients that require NELAC Accreditation, Trace certifies that these test results meet all requirements of the NELAC Standard, except for those analytes with a "N" notation. These analytes have not been evaluated by NELAC at Trace's discretion and will not be reported unless requested by client.

If you have questions concerning this report, please contact me at 231.773.5998 or by email at jmink@trace-labs.com.

Sincerely,

Jon Mink
Senior Project Manager
Enclosures

ACCREDITED IN ACCORDANCE WITH nelac

NJDEP Accreditation No. MI008

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SAMPLE SUMMARY

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID	Sample ID	Matrix	Collected By	Date Collected	Date Received
T18F057-01	MLNP-SS-1	Solid	arb/bm	06/04/18 11:53	06/04/18 14:44
T18F057-02	MLNP-SS-2	Solid	arb/bm	06/04/18 12:03	06/04/18 14:44
T18F057-03	MLNP-SS-3	Solid	arb/bm	06/04/18 12:12	06/04/18 14:44
T18F057-04	MLNP-SS-4	Solid	arb/bm	06/04/18 12:20	06/04/18 14:44
T18F057-05	MLNP-SS-4a	Solid	arb/bm	06/04/18 12:20	06/04/18 14:44
T18F057-06	MLNP-SS-5	Solid	arb/bm	06/04/18 12:30	06/04/18 14:44
T18F057-07	MLNP-SS-6	Solid	arb/bm	06/04/18 12:35	06/04/18 14:44
T18F057-08	MLNP-SS-7	Solid	arb/bm	06/04/18 12:50	06/04/18 14:44
T18F057-09	MLNP-SS-8	Solid	arb/bm	06/04/18 13:10	06/04/18 14:44
T18F057-10	MLNP-GW-8	Ground Water	arb/bm	06/04/18 13:00	06/04/18 14:44
T18F057-11	MLNP-GW-7	Ground Water	arb/bm	06/04/18 13:45	06/04/18 14:44
T18F057-12	MLNP-GW-4	Ground Water	arb/bm	06/04/18 14:00	06/04/18 14:44

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AN EXPLANATION OF TERMS AND SYMBOLS WHICH MAY OCCUR IN THIS REPORT

DEFINITIONS

LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MS	Matrix Spike
MSD	Matrix Spike Duplicate
RPD	Relative Percent Difference
DUP	Matrix Duplicate
RDL	Reporting Detection Limit
MCL	Maximum Contamination Limit
TIC	Tentatively Identified Compound
<, ND or U	Indicates the compound was analyzed for but not detected
*	Indicates a result that exceeds its associated MCL or Surrogate control limits
N	Indicates that the compound has not been evaluated by NELAC
NA	Indicates that the compound is not available.

NOTE: Samples for volatiles that have been extracted with a water miscible solvent were corrected for the total volume of the solvent/water mixture.
Solid matrices Method Blanks are at 100% solids as such results are the same wet or dry.

DATA QUALIFIERS

Trace ID: T077876-MSD1

Analysis: EPA 6010B

Barium	Note 207 : The RPD between the MS and the MSD was out of control. Because both spike recoveries were in control, no data require qualification.
Lead	Note 207 : The RPD between the MS and the MSD was out of control. Because both spike recoveries were in control, no data require qualification.

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-01 Date Collected: 06/04/18 11:53 Matrix: Solid
Sample ID: MLNP-SS-1 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
METALS, TOTAL										
Analysis Method: EPA 7471A										
Batch: T077882										
Mercury	<0.050	mg/kg dry	0.050	1	06/11/18	gmr	06/11/18	edc		
METALS, TOTAL										
Analysis Method: EPA 6010B										
Batch: T077876										
Barium	**11**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Cadmium	**0.98**	**mg/kg dry**	**0.20**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Chromium	**9.8**	**mg/kg dry**	**2.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Copper	**11**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Lead	**52**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Zinc	**72**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Analysis Method: EPA 6020										
Batch: T077876										
Arsenic	**1.5**	**mg/kg dry**	**0.12**	**10**	**06/11/18**	**gmr**	**06/12/18**	**nws**		
Selenium	**0.20**	**mg/kg dry**	**0.20**	**10**	**06/11/18**	**gmr**	**06/12/18**	**nws**		
Silver	<0.10	mg/kg dry	0.10	10	06/11/18	gmr	06/12/18	nws		
PESTICIDES/PCBS										
Analysis Method: EPA 8082A										
Batch: T077815										
Aroclor-1016	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1221	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1232	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1242	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1248	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1254	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1260	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Surrogates:										
Tetrachloro-m-xylene	68	%	40-113	1	06/07/18	kbc	06/08/18	tml	N	
Decachlorobiphenyl	83	%	32-111	1	06/07/18	kbc	06/08/18	tml	N	

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-01 Date Collected: 06/04/18 11:53 Matrix: Solid
Sample ID: MLNP-SS-1 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
PESTICIDES/PCBS										
SEMI-VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8270C										
Batch: T077846										
Naphthalene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
2-Methylnaphthalene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Acenaphthylene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Acenaphthene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Fluorene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Phenanthrene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Anthracene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Fluoranthene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Pyrene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Benzo (a) anthracene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Chrysene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Benzo (b) fluoranthene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Benzo (k) fluoranthene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Benzo (a) pyrene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Indeno (1,2,3-cd) pyrene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Dibenz (a,h) anthracene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Benzo (g,h,i) perylene	<330	ug/kg dry	330	2	06/08/18	kbc	06/08/18	avl		
Surrogates:										
Nitrobenzene-d5	78	%	36-98	2	06/08/18	kbc	06/08/18	avl		
2-Fluorobiphenyl	77	%	44-105	2	06/08/18	kbc	06/08/18	avl		
Terphenyl-d14	77	%	46-109	2	06/08/18	kbc	06/08/18	avl		

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-01 Date Collected: 06/04/18 11:53 Matrix: Solid
Sample ID: MLNP-SS-1 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Analysis Method: EPA 8260C									
Batch: T077918									
Dichlorodifluoromethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Chloromethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Vinyl chloride	<40 ug/kg dry	40	50	06/12/18	was	06/12/18	was	N	
Bromomethane	<200 ug/kg dry	200	50	06/12/18	was	06/12/18	was		
Chloroethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Trichlorofluoromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Diethyl ether	<200 ug/kg dry	200	50	06/12/18	was	06/12/18	was	N	
Tert-butyl alcohol	<2500 ug/kg dry	2500	50	06/12/18	was	06/12/18	was	N	
1,1-Dichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Acetone	**3000 ug/kg dry**	**1000**	**50**	**06/12/18**	**was**	**06/12/18**	**was**		
Iodomethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
Carbon disulfide	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Methyl-tert-butyl ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Methylene chloride	**670 ug/kg dry**	**250**	**50**	**06/12/18**	**was**	**06/12/18**	**was**		
Acrylonitrile	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
trans-1,2-Dichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1-Dichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Diisopropyl Ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
2-Butanone	<750 ug/kg dry	750	50	06/12/18	was	06/12/18	was		
cis-1,2-Dichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
t-Butyl Ethyl Ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
Bromochloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Tetrahydrofuran	<1000 ug/kg dry	1000	50	06/12/18	was	06/12/18	was	N	
Chloroform	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1,1-Trichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Carbon tetrachloride	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Benzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
t-Amyl Methyl Ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
1,2-Dichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Cyclohexane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
Trichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,2-Dichloropropane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-01 Date Collected: 06/04/18 11:53 Matrix: Solid
Sample ID: MLNP-SS-1 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Dibromomethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Bromodichloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
cis-1,3-Dichloropropene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
4-Methyl-2-pentanone	<2500 ug/kg dry	2500	50	06/12/18	was	06/12/18	was		
Toluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,3-Dichloropropene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1,2-Trichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Tetrachloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
2-Hexanone	<2500 ug/kg dry	2500	50	06/12/18	was	06/12/18	was		
Dibromochloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromoethane (EDB)	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Chlorobenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1,1,2-Tetrachloroethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Ethylbenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
m,p-Xylene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
o-Xylene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was	N	
Xylenes, total	<150 ug/kg dry	150	50	06/12/18	was	06/12/18	was	N	
Styrene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Bromoform	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Isopropylbenzene	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
1,1,2,2-Tetrachloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,2,3-Trichloropropane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,4-Dichloro-2-butene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Bromobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Propylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3,5-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
t-Butyl Benzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,2,4-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
sec-Butylbenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
p-Isopropyltoluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,4-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Butylbenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-01 Date Collected: 06/04/18 11:53 Matrix: Solid
Sample ID: MLNP-SS-1 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
1,2,3-Trimethylbenzene	<50	ug/kg dry	50	50	06/12/18	was	06/12/18	was	N	
1,2-Dichlorobenzene	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromo-3-chloropropane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Hexachloroethane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
1,2,4-Trichlorobenzene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was		
Naphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
1,2,3-Trichlorobenzene	<250	ug/kg dry	250	50	06/12/18	was	06/12/18	was		
2-Methylnaphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
Surrogates:										
1,2-Dichloroethane-d4	104	%	68-133	50	06/12/18	was	06/12/18	was		
Toluene-d8	95	%	75-120	50	06/12/18	was	06/12/18	was		
4-Bromofluorobenzene	106	%	69-119	50	06/12/18	was	06/12/18	was		
1,2-Dichlorobenzene-d4	101	%	72-127	50	06/12/18	was	06/12/18	was		
WET CHEMISTRY										
Analysis Method: ASTM D2974-87										
Batch: T077734										
% Solids	**94**	**% by Wt.**	**0.10**	**1**	**06/05/18**	**jm**	**06/05/18**	**jm**	**N**	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-02 Date Collected: 06/04/18 12:03 Matrix: Solid
Sample ID: MLNP-SS-2 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
METALS, TOTAL										
Analysis Method: EPA 7471A										
Batch: T077882										
Mercury	<0.050	mg/kg dry	0.050	1	06/11/18	gmr	06/11/18	edc		
METALS, TOTAL										
Analysis Method: EPA 6010B										
Batch: T077876										
Barium	**3.4**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Cadmium	<0.20	mg/kg dry	0.20	1	06/11/18	gmr	06/12/18	edc		
Chromium	<2.0	mg/kg dry	2.0	1	06/11/18	gmr	06/12/18	edc		
Copper	**1.2**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Lead	**2.8**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Zinc	**5.0**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Analysis Method: EPA 6020										
Batch: T077876										
Arsenic	**0.59**	**mg/kg dry**	**0.10**	**10**	**06/11/18**	**gmr**	**06/12/18**	**nws**		
Selenium	<0.20	mg/kg dry	0.20	10	06/11/18	gmr	06/12/18	nws		
Silver	<0.10	mg/kg dry	0.10	10	06/11/18	gmr	06/12/18	nws		
PESTICIDES/PCBS										
Analysis Method: EPA 8082A										
Batch: T077815										
Aroclor-1016	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1221	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1232	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1242	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1248	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1254	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1260	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Surrogates:										
Tetrachloro-m-xylene	67	%	40-113	1	06/07/18	kbc	06/08/18	tml	N	
Decachlorobiphenyl	80	%	32-111	1	06/07/18	kbc	06/08/18	tml	N	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-02 Date Collected: 06/04/18 12:03 Matrix: Solid
Sample ID: MLNP-SS-2 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
PESTICIDES/PCBS										
SEMI-VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8270C										
Batch: T077846										
Naphthalene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
2-Methylnaphthalene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Acenaphthylene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Acenaphthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Fluorene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Phenanthrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (a) anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Chrysene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (b) fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (k) fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (a) pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Indeno (1,2,3-cd) pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Dibenz (a,h) anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (g,h,i) perylene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Surrogates:										
Nitrobenzene-d5	72	%	36-98	1	06/08/18	kbc	06/08/18	avl		
2-Fluorobiphenyl	64	%	44-105	1	06/08/18	kbc	06/08/18	avl		
Terphenyl-d14	69	%	46-109	1	06/08/18	kbc	06/08/18	avl		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-02 | Date Collected: 06/04/18 12:03 | Matrix: Solid
Sample ID: MLNP-SS-2 | Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Analysis Method: EPA 8260C									
Batch: T077918									
Dichlorodifluoromethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Chloromethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Vinyl chloride	<40 ug/kg dry	40	50	06/12/18	was	06/12/18	was	N	
Bromomethane	<200 ug/kg dry	200	50	06/12/18	was	06/12/18	was		
Chloroethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Trichlorofluoromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Diethyl ether	<200 ug/kg dry	200	50	06/12/18	was	06/12/18	was	N	
Tert-butyl alcohol	<2500 ug/kg dry	2500	50	06/12/18	was	06/12/18	was	N	
1,1-Dichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Acetone	**1200 ug/kg dry**	**1000**	**50**	**06/12/18**	**was**	**06/12/18**	**was**		
Iodomethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
Carbon disulfide	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Methyl-tert-butyl ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Methylene chloride	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Acrylonitrile	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
trans-1,2-Dichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1-Dichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Diisopropyl Ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
2-Butanone	<750 ug/kg dry	750	50	06/12/18	was	06/12/18	was		
cis-1,2-Dichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
t-Butyl Ethyl Ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
Bromochloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Tetrahydrofuran	<1000 ug/kg dry	1000	50	06/12/18	was	06/12/18	was	N	
Chloroform	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1,1-Trichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Carbon tetrachloride	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Benzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
t-Amyl Methyl Ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
1,2-Dichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Cyclohexane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
Trichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,2-Dichloropropane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-02 Date Collected: 06/04/18 12:03 Matrix: Solid
Sample ID: MLNP-SS-2 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Dibromomethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Bromodichloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
cis-1,3-Dichloropropene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
4-Methyl-2-pentanone	<2500 ug/kg dry	2500	50	06/12/18	was	06/12/18	was		
Toluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,3-Dichloropropene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1,2-Trichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Tetrachloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
2-Hexanone	<2500 ug/kg dry	2500	50	06/12/18	was	06/12/18	was		
Dibromochloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromoethane (EDB)	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Chlorobenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1,1,2-Tetrachloroethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Ethylbenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
m,p-Xylene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
o-Xylene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was	N	
Xylenes, total	<150 ug/kg dry	150	50	06/12/18	was	06/12/18	was	N	
Styrene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Bromoform	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Isopropylbenzene	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
1,1,2,2-Tetrachloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,2,3-Trichloropropane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,4-Dichloro-2-butene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Bromobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Propylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3,5-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
t-Butyl Benzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,2,4-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
sec-Butylbenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
p-Isopropyltoluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,4-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Butylbenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-02 Date Collected: 06/04/18 12:03 Matrix: Solid
Sample ID: MLNP-SS-2 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
1,2,3-Trimethylbenzene	<50	ug/kg dry	50	50	06/12/18	was	06/12/18	was	N	
1,2-Dichlorobenzene	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromo-3-chloropropane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Hexachloroethane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
1,2,4-Trichlorobenzene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was		
Naphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
1,2,3-Trichlorobenzene	<250	ug/kg dry	250	50	06/12/18	was	06/12/18	was		
2-Methylnaphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
Surrogates:										
1,2-Dichloroethane-d4	105	%	68-133	50	06/12/18	was	06/12/18	was		
Toluene-d8	98	%	75-120	50	06/12/18	was	06/12/18	was		
4-Bromofluorobenzene	103	%	69-119	50	06/12/18	was	06/12/18	was		
1,2-Dichlorobenzene-d4	102	%	72-127	50	06/12/18	was	06/12/18	was		
WET CHEMISTRY										
Analysis Method: ASTM D2974-87										
Batch: T077734										
% Solids	**95**	**% by Wt.**	**0.10**	**1**	**06/05/18**	**jm**	**06/05/18**	**jm**	**N**	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-03 Date Collected: 06/04/18 12:12 Matrix: Solid
Sample ID: MLNP-SS-3 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
METALS, TOTAL										
Analysis Method: EPA 7471A										
Batch: T077882										
Mercury	<0.050	mg/kg dry	0.050	1	06/11/18	gmr	06/11/18	edc		
METALS, TOTAL										
Analysis Method: EPA 6010B										
Batch: T077876										
Barium	**12**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Cadmium	**0.47**	**mg/kg dry**	**0.20**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Chromium	**9.6**	**mg/kg dry**	**2.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Copper	**8.6**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Lead	**12**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Zinc	**15**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Analysis Method: EPA 6020										
Batch: T077876										
Arsenic	**1.6**	**mg/kg dry**	**0.11**	**10**	**06/11/18**	**gmr**	**06/12/18**	**nws**		
Selenium	**0.21**	**mg/kg dry**	**0.20**	**10**	**06/11/18**	**gmr**	**06/12/18**	**nws**		
Silver	<0.10	mg/kg dry	0.10	10	06/11/18	gmr	06/12/18	nws		
PESTICIDES/PCBS										
Analysis Method: EPA 8082A										
Batch: T077815										
Aroclor-1016	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1221	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1232	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1242	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1248	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1254	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1260	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Surrogates:										
Tetrachloro-m-xylene	72	%	40-113	1	06/07/18	kbc	06/08/18	tml	N	
Decachlorobiphenyl	90	%	32-111	1	06/07/18	kbc	06/08/18	tml	N	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-03 Date Collected: 06/04/18 12:12 Matrix: Solid
Sample ID: MLNP-SS-3 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
PESTICIDES/PCBS										
SEMI-VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8270C										
Batch: T077846										
Naphthalene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
2-Methylnaphthalene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Acenaphthylene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Acenaphthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Fluorene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Phenanthrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (a) anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Chrysene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (b) fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (k) fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (a) pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Indeno (1,2,3-cd) pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Dibenz (a,h) anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (g,h,i) perylene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Surrogates:										
Nitrobenzene-d5	76	%	36-98	1	06/08/18	kbc	06/08/18	avl		
2-Fluorobiphenyl	69	%	44-105	1	06/08/18	kbc	06/08/18	avl		
Terphenyl-d14	76	%	46-109	1	06/08/18	kbc	06/08/18	avl		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-03 Date Collected: 06/04/18 12:12 Matrix: Solid
Sample ID: MLNP-SS-3 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Analysis Method: EPA 8260C									
Batch: T077918									
Dichlorodifluoromethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Chloromethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Vinyl chloride	<40 ug/kg dry	40	50	06/12/18	was	06/12/18	was	N	
Bromomethane	<200 ug/kg dry	200	50	06/12/18	was	06/12/18	was		
Chloroethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Trichlorofluoromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Diethyl ether	<200 ug/kg dry	200	50	06/12/18	was	06/12/18	was	N	
Tert-butyl alcohol	<2500 ug/kg dry	2500	50	06/12/18	was	06/12/18	was	N	
1,1-Dichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Acetone	<1000 ug/kg dry	1000	50	06/12/18	was	06/12/18	was		
Iodomethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
Carbon disulfide	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Methyl-tert-butyl ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Methylene chloride	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Acrylonitrile	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
trans-1,2-Dichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1-Dichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Diisopropyl Ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
2-Butanone	<750 ug/kg dry	750	50	06/12/18	was	06/12/18	was		
cis-1,2-Dichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
t-Butyl Ethyl Ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
Bromochloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Tetrahydrofuran	<1000 ug/kg dry	1000	50	06/12/18	was	06/12/18	was	N	
Chloroform	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1,1-Trichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Carbon tetrachloride	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Benzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
t-Amyl Methyl Ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
1,2-Dichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Cyclohexane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
Trichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,2-Dichloropropane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-03 Date Collected: 06/04/18 12:12 Matrix: Solid
Sample ID: MLNP-SS-3 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Dibromomethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Bromodichloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
cis-1,3-Dichloropropene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
4-Methyl-2-pentanone	<2500 ug/kg dry	2500	50	06/12/18	was	06/12/18	was		
Toluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,3-Dichloropropene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1,2-Trichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Tetrachloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
2-Hexanone	<2500 ug/kg dry	2500	50	06/12/18	was	06/12/18	was		
Dibromochloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromoethane (EDB)	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Chlorobenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1,1,2-Tetrachloroethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Ethylbenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
m,p-Xylene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
o-Xylene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was	N	
Xylenes, total	<150 ug/kg dry	150	50	06/12/18	was	06/12/18	was	N	
Styrene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Bromoform	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Isopropylbenzene	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
1,1,2,2-Tetrachloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,2,3-Trichloropropane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,4-Dichloro-2-butene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Bromobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Propylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3,5-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
t-Butyl Benzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,2,4-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
sec-Butylbenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
p-Isopropyltoluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,4-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Butylbenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-03 Date Collected: 06/04/18 12:12 Matrix: Solid
Sample ID: MLNP-SS-3 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
1,2,3-Trimethylbenzene	<50	ug/kg dry	50	50	06/12/18	was	06/12/18	was	N	
1,2-Dichlorobenzene	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromo-3-chloropropane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Hexachloroethane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
1,2,4-Trichlorobenzene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was		
Naphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
1,2,3-Trichlorobenzene	<250	ug/kg dry	250	50	06/12/18	was	06/12/18	was		
2-Methylnaphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
Surrogates:										
1,2-Dichloroethane-d4	108	%	68-133	50	06/12/18	was	06/12/18	was		
Toluene-d8	94	%	75-120	50	06/12/18	was	06/12/18	was		
4-Bromofluorobenzene	106	%	69-119	50	06/12/18	was	06/12/18	was		
1,2-Dichlorobenzene-d4	100	%	72-127	50	06/12/18	was	06/12/18	was		
WET CHEMISTRY										
Analysis Method: ASTM D2974-87										
Batch: T077734										
% Solids	**92**	**% by Wt.**	**0.10**	**1**	**06/05/18**	**jm**	**06/05/18**	**jm**	**N**	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-04 Date Collected: 06/04/18 12:20 Matrix: Solid
Sample ID: MLNP-SS-4 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
METALS, TOTAL										
Analysis Method: EPA 7471A										
Batch: T077773										
Mercury	<0.050	mg/kg dry	0.050	1	06/06/18	gmr	06/06/18	nws		
METALS, TOTAL										
Analysis Method: EPA 6010B										
Batch: T077728										
Barium	**17**	**mg/kg dry**	**1.0**	**1**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Cadmium	**0.92**	**mg/kg dry**	**0.20**	**1**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Chromium	**20**	**mg/kg dry**	**2.0**	**1**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Copper	**24**	**mg/kg dry**	**1.0**	**1**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Lead	**41**	**mg/kg dry**	**1.0**	**1**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Zinc	**43**	**mg/kg dry**	**1.0**	**1**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Analysis Method: EPA 6020										
Batch: T077728										
Arsenic	**2.0**	**mg/kg dry**	**0.12**	**10**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Selenium	**0.28**	**mg/kg dry**	**0.20**	**10**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Silver	<0.10	mg/kg dry	0.10	10	06/05/18	gmr	06/06/18	nws		
PESTICIDES/PCBS										
Analysis Method: EPA 8082A										
Batch: T077764										
Aroclor-1016	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Aroclor-1221	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Aroclor-1232	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Aroclor-1242	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Aroclor-1248	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Aroclor-1254	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Aroclor-1260	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Surrogates:										
Tetrachloro-m-xylene	52	%	40-113	1	06/06/18	kbc	06/06/18	tml	N	
Decachlorobiphenyl	60	%	32-111	1	06/06/18	kbc	06/06/18	tml	N	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-04 Date Collected: 06/04/18 12:20 Matrix: Solid
Sample ID: MLNP-SS-4 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
PESTICIDES/PCBS										
SEMI-VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8270C										
Batch: T077765										
Naphthalene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
2-Methylnaphthalene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Acenaphthylene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Acenaphthene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Fluorene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Phenanthrene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Anthracene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Fluoranthene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Pyrene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Benzo (a) anthracene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Chrysene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Benzo (b) fluoranthene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Benzo (k) fluoranthene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Benzo (a) pyrene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Indeno (1,2,3-cd) pyrene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Dibenz (a,h) anthracene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Benzo (g,h,i) perylene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Surrogates:										
Nitrobenzene-d5	80	%	36-98	1	06/06/18	kbc	06/06/18	avl		
2-Fluorobiphenyl	79	%	44-105	1	06/06/18	kbc	06/06/18	avl		
Terphenyl-d14	70	%	46-109	1	06/06/18	kbc	06/06/18	avl		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-04 | Date Collected: 06/04/18 12:20 | Matrix: Solid
Sample ID: MLNP-SS-4 | Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Analysis Method: EPA 8260C									
Batch: T077774									
Dichlorodifluoromethane	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
Chloromethane	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
Vinyl chloride	<41 ug/kg dry	41	50	06/06/18	was	06/06/18	was	N	
Bromomethane	<200 ug/kg dry	200	50	06/06/18	was	06/06/18	was		
Chloroethane	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
Trichlorofluoromethane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
Diethyl ether	<200 ug/kg dry	200	50	06/06/18	was	06/06/18	was	N	
Tert-butyl alcohol	<2500 ug/kg dry	2500	50	06/06/18	was	06/06/18	was	N	
1,1-Dichloroethene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
Acetone	<1000 ug/kg dry	1000	50	06/06/18	was	06/06/18	was		
Iodomethane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was	N	
Carbon disulfide	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
Methyl-tert-butyl ether	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
Methylene chloride	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
Acrylonitrile	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was	N	
trans-1,2-Dichloroethene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
1,1-Dichloroethane	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
Diisopropyl Ether	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was	N	
2-Butanone	<760 ug/kg dry	760	50	06/06/18	was	06/06/18	was		
cis-1,2-Dichloroethene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
t-Butyl Ethyl Ether	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was	N	
Bromochloromethane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
Tetrahydrofuran	<1000 ug/kg dry	1000	50	06/06/18	was	06/06/18	was	N	
Chloroform	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
1,1,1-Trichloroethane	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
Carbon tetrachloride	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
Benzene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
t-Amyl Methyl Ether	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was	N	
1,2-Dichloroethane	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
Cyclohexane	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was	N	
Trichloroethene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
1,2-Dichloropropane	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-04 Date Collected: 06/04/18 12:20 Matrix: Solid
Sample ID: MLNP-SS-4 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Dibromomethane	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
Bromodichloromethane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
cis-1,3-Dichloropropene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
4-Methyl-2-pentanone	<2500 ug/kg dry	2500	50	06/06/18	was	06/06/18	was		
Toluene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
trans-1,3-Dichloropropene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
1,1,2-Trichloroethane	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
Tetrachloroethene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
2-Hexanone	<2500 ug/kg dry	2500	50	06/06/18	was	06/06/18	was		
Dibromochloromethane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
1,2-Dibromoethane (EDB)	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
Chlorobenzene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
1,1,1,2-Tetrachloroethane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
Ethylbenzene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
m,p-Xylene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was	N	
o-Xylene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was	N	
Xylenes, total	<150 ug/kg dry	150	50	06/06/18	was	06/06/18	was	N	
Styrene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
Bromoform	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
Isopropylbenzene	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
1,1,2,2-Tetrachloroethane	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
1,2,3-Trichloropropane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
trans-1,4-Dichloro-2-butene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
Bromobenzene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
n-Propylbenzene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
1,3,5-Trimethylbenzene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
t-Butyl Benzene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
1,2,4-Trimethylbenzene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
sec-Butylbenzene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		
p-Isopropyltoluene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
1,3-Dichlorobenzene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
1,4-Dichlorobenzene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
n-Butylbenzene	<51 ug/kg dry	51	50	06/06/18	was	06/06/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-04 Date Collected: 06/04/18 12:20 Matrix: Solid
Sample ID: MLNP-SS-4 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
1,2,3-Trimethylbenzene	<51	ug/kg dry	51	50	06/06/18	was	06/06/18	was	N	
1,2-Dichlorobenzene	<100	ug/kg dry	100	50	06/06/18	was	06/06/18	was		
1,2-Dibromo-3-chloropropane	<100	ug/kg dry	100	50	06/06/18	was	06/06/18	was		
Hexachloroethane	<100	ug/kg dry	100	50	06/06/18	was	06/06/18	was	N	
1,2,4-Trichlorobenzene	<330	ug/kg dry	330	50	06/06/18	was	06/06/18	was		
Naphthalene	<330	ug/kg dry	330	50	06/06/18	was	06/06/18	was	N	
1,2,3-Trichlorobenzene	<250	ug/kg dry	250	50	06/06/18	was	06/06/18	was		
2-Methylnaphthalene	<330	ug/kg dry	330	50	06/06/18	was	06/06/18	was	N	
Surrogates:										
1,2-Dichloroethane-d4	100	%	68-133	50	06/06/18	was	06/06/18	was		
Toluene-d8	106	%	75-120	50	06/06/18	was	06/06/18	was		
4-Bromofluorobenzene	98	%	69-119	50	06/06/18	was	06/06/18	was		
1,2-Dichlorobenzene-d4	98	%	72-127	50	06/06/18	was	06/06/18	was		
WET CHEMISTRY										
Analysis Method: ASTM D2974-87										
Batch: T077734										
% Solids	**85**	**% by Wt.**	**0.10**	**1**	**06/06/18**	**jm**	**06/06/18**	**jm**	**N**	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-05 Date Collected: 06/04/18 12:20 Matrix: Solid
Sample ID: MLNP-SS-4a Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
METALS, TOTAL										
Analysis Method: EPA 7471A										
Batch: T077882										
Mercury	<0.050	mg/kg dry	0.050	1	06/11/18	gmr	06/11/18	edc		
METALS, TOTAL										
Analysis Method: EPA 6010B										
Batch: T077876										
Barium	**24**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Cadmium	**1.1**	**mg/kg dry**	**0.20**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Chromium	**24**	**mg/kg dry**	**2.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Copper	**32**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Lead	**39**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Zinc	**45**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Analysis Method: EPA 6020										
Batch: T077876										
Arsenic	**2.2**	**mg/kg dry**	**0.12**	**10**	**06/11/18**	**gmr**	**06/12/18**	**nws**		
Selenium	**0.36**	**mg/kg dry**	**0.20**	**10**	**06/11/18**	**gmr**	**06/12/18**	**nws**		
Silver	<0.10	mg/kg dry	0.10	10	06/11/18	gmr	06/12/18	nws		
PESTICIDES/PCBS										
Analysis Method: EPA 8082A										
Batch: T077815										
Aroclor-1016	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1221	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1232	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1242	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1248	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1254	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1260	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Surrogates:										
Tetrachloro-m-xylene	59	%	40-113	1	06/07/18	kbc	06/08/18	tml	N	
Decachlorobiphenyl	46	%	32-111	1	06/07/18	kbc	06/08/18	tml	N	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-05 Date Collected: 06/04/18 12:20 Matrix: Solid
Sample ID: MLNP-SS-4a Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
PESTICIDES/PCBS										
SEMI-VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8270C										
Batch: T077846										
Naphthalene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
2-Methylnaphthalene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Acenaphthylene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Acenaphthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Fluorene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Phenanthrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (a) anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Chrysene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (b) fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (k) fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (a) pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Indeno (1,2,3-cd) pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Dibenz (a,h) anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (g,h,i) perylene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Surrogates:										
Nitrobenzene-d5	66	%	36-98	1	06/08/18	kbc	06/08/18	avl		
2-Fluorobiphenyl	58	%	44-105	1	06/08/18	kbc	06/08/18	avl		
Terphenyl-d14	67	%	46-109	1	06/08/18	kbc	06/08/18	avl		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-05 Date Collected: 06/04/18 12:20 Matrix: Solid
Sample ID: MLNP-SS-4a Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8260C										
Batch: T077918										
Dichlorodifluoromethane	<250	ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Chloromethane	<250	ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Vinyl chloride	<44	ug/kg dry	44	50	06/12/18	was	06/12/18	was	N	
Bromomethane	<200	ug/kg dry	200	50	06/12/18	was	06/12/18	was		
Chloroethane	<250	ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Trichlorofluoromethane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Diethyl ether	<220	ug/kg dry	220	50	06/12/18	was	06/12/18	was	N	
Tert-butyl alcohol	<2700	ug/kg dry	2700	50	06/12/18	was	06/12/18	was	N	
1,1-Dichloroethene	<55	ug/kg dry	55	50	06/12/18	was	06/12/18	was		
Acetone	<1000	ug/kg dry	1000	50	06/12/18	was	06/12/18	was		
Iodomethane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
Carbon disulfide	<270	ug/kg dry	270	50	06/12/18	was	06/12/18	was		
Methyl-tert-butyl ether	<270	ug/kg dry	270	50	06/12/18	was	06/12/18	was		
Methylene chloride	<250	ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Acrylonitrile	<110	ug/kg dry	110	50	06/12/18	was	06/12/18	was	N	
trans-1,2-Dichloroethene	<55	ug/kg dry	55	50	06/12/18	was	06/12/18	was		
1,1-Dichloroethane	<55	ug/kg dry	55	50	06/12/18	was	06/12/18	was		
Diisopropyl Ether	<270	ug/kg dry	270	50	06/12/18	was	06/12/18	was	N	
2-Butanone	<820	ug/kg dry	820	50	06/12/18	was	06/12/18	was		
cis-1,2-Dichloroethene	<55	ug/kg dry	55	50	06/12/18	was	06/12/18	was		
t-Butyl Ethyl Ether	<270	ug/kg dry	270	50	06/12/18	was	06/12/18	was	N	
Bromochloromethane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Tetrahydrofuran	<1100	ug/kg dry	1100	50	06/12/18	was	06/12/18	was	N	
Chloroform	<55	ug/kg dry	55	50	06/12/18	was	06/12/18	was		
1,1,1-Trichloroethane	<55	ug/kg dry	55	50	06/12/18	was	06/12/18	was		
Carbon tetrachloride	<55	ug/kg dry	55	50	06/12/18	was	06/12/18	was		
Benzene	<55	ug/kg dry	55	50	06/12/18	was	06/12/18	was		
t-Amyl Methyl Ether	<270	ug/kg dry	270	50	06/12/18	was	06/12/18	was	N	
1,2-Dichloroethane	<55	ug/kg dry	55	50	06/12/18	was	06/12/18	was		
Cyclohexane	<270	ug/kg dry	270	50	06/12/18	was	06/12/18	was	N	
Trichloroethene	<55	ug/kg dry	55	50	06/12/18	was	06/12/18	was		
1,2-Dichloropropane	<55	ug/kg dry	55	50	06/12/18	was	06/12/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-05 Date Collected: 06/04/18 12:20 Matrix: Solid
Sample ID: MLNP-SS-4a Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Dibromomethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Bromodichloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
cis-1,3-Dichloropropene	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was		
4-Methyl-2-pentanone	<2700 ug/kg dry	2700	50	06/12/18	was	06/12/18	was		
Toluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,3-Dichloropropene	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was		
1,1,2-Trichloroethane	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was		
Tetrachloroethene	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was		
2-Hexanone	<2700 ug/kg dry	2700	50	06/12/18	was	06/12/18	was		
Dibromochloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromoethane (EDB)	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was		
Chlorobenzene	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was		
1,1,1,2-Tetrachloroethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Ethylbenzene	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was		
m,p-Xylene	<110 ug/kg dry	110	50	06/12/18	was	06/12/18	was	N	
o-Xylene	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was	N	
Xylenes, total	<160 ug/kg dry	160	50	06/12/18	was	06/12/18	was	N	
Styrene	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was		
Bromoform	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Isopropylbenzene	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
1,1,2,2-Tetrachloroethane	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was		
1,2,3-Trichloropropane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,4-Dichloro-2-butene	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was		
Bromobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Propylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3,5-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
t-Butyl Benzene	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was		
1,2,4-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
sec-Butylbenzene	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was		
p-Isopropyltoluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,4-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Butylbenzene	<55 ug/kg dry	55	50	06/12/18	was	06/12/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-05 Date Collected: 06/04/18 12:20 Matrix: Solid
Sample ID: MLNP-SS-4a Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
1,2,3-Trimethylbenzene	<55	ug/kg dry	55	50	06/12/18	was	06/12/18	was	N	
1,2-Dichlorobenzene	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromo-3-chloropropane	<110	ug/kg dry	110	50	06/12/18	was	06/12/18	was		
Hexachloroethane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
1,2,4-Trichlorobenzene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was		
Naphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
1,2,3-Trichlorobenzene	<250	ug/kg dry	250	50	06/12/18	was	06/12/18	was		
2-Methylnaphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
Surrogates:										
1,2-Dichloroethane-d4	108	%	68-133	50	06/12/18	was	06/12/18	was		
Toluene-d8	93	%	75-120	50	06/12/18	was	06/12/18	was		
4-Bromofluorobenzene	102	%	69-119	50	06/12/18	was	06/12/18	was		
1,2-Dichlorobenzene-d4	101	%	72-127	50	06/12/18	was	06/12/18	was		
WET CHEMISTRY										
Analysis Method: ASTM D2974-87										
Batch: T077734										
% Solids	**85**	**% by Wt.**	**0.10**	**1**	**06/05/18**	**jm**	**06/05/18**	**jm**	**N**	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-06 Date Collected: 06/04/18 12:30 Matrix: Solid
Sample ID: MLNP-SS-5 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
METALS, TOTAL										
Analysis Method: EPA 7471A										
Batch: T077773										
Mercury	<0.050	mg/kg dry	0.050	1	06/06/18	gmr	06/06/18	nws		
METALS, TOTAL										
Analysis Method: EPA 6010B										
Batch: T077728										
Barium	**20**	**mg/kg dry**	**1.0**	**1**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Cadmium	**0.99**	**mg/kg dry**	**0.20**	**1**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Chromium	**25**	**mg/kg dry**	**2.0**	**1**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Copper	**25**	**mg/kg dry**	**1.0**	**1**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Lead	**53**	**mg/kg dry**	**1.0**	**1**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Zinc	**39**	**mg/kg dry**	**1.0**	**1**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Analysis Method: EPA 6020										
Batch: T077728										
Arsenic	**3.6**	**mg/kg dry**	**0.11**	**10**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Selenium	**0.38**	**mg/kg dry**	**0.20**	**10**	**06/05/18**	**gmr**	**06/06/18**	**nws**		
Silver	<0.10	mg/kg dry	0.10	10	06/05/18	gmr	06/06/18	nws		
PESTICIDES/PCBS										
Analysis Method: EPA 8082A										
Batch: T077764										
Aroclor-1016	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Aroclor-1221	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Aroclor-1232	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Aroclor-1242	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Aroclor-1248	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Aroclor-1254	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Aroclor-1260	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	tml		
Surrogates:										
Tetrachloro-m-xylene	45	%	40-113	1	06/06/18	kbc	06/06/18	tml	N	
Decachlorobiphenyl	32	%	32-111	1	06/06/18	kbc	06/06/18	tml	N	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-06 Date Collected: 06/04/18 12:30 Matrix: Solid
Sample ID: MLNP-SS-5 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
PESTICIDES/PCBS										
SEMI-VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8270C										
Batch: T077765										
Naphthalene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
2-Methylnaphthalene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Acenaphthylene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Acenaphthene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Fluorene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Phenanthrene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Anthracene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Fluoranthene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Pyrene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Benzo (a) anthracene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Chrysene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Benzo (b) fluoranthene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Benzo (k) fluoranthene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Benzo (a) pyrene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Indeno (1,2,3-cd) pyrene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Dibenz (a,h) anthracene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Benzo (g,h,i) perylene	<330	ug/kg dry	330	1	06/06/18	kbc	06/06/18	avl		
Surrogates:										
Nitrobenzene-d5	72	%	36-98	1	06/06/18	kbc	06/06/18	avl		
2-Fluorobiphenyl	70	%	44-105	1	06/06/18	kbc	06/06/18	avl		
Terphenyl-d14	59	%	46-109	1	06/06/18	kbc	06/06/18	avl		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-06 | Date Collected: 06/04/18 12:30 | Matrix: Solid
Sample ID: MLNP-SS-5 | Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Analysis Method: EPA 8260C									
Batch: T077774									
Dichlorodifluoromethane	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
Chloromethane	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
Vinyl chloride	<58 ug/kg dry	58	50	06/06/18	was	06/06/18	was	N	
Bromomethane	<200 ug/kg dry	200	50	06/06/18	was	06/06/18	was		
Chloroethane	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
Trichlorofluoromethane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
Diethyl ether	<290 ug/kg dry	290	50	06/06/18	was	06/06/18	was	N	
Tert-butyl alcohol	<3600 ug/kg dry	3600	50	06/06/18	was	06/06/18	was	N	
1,1-Dichloroethene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
Acetone	<1100 ug/kg dry	1100	50	06/06/18	was	06/06/18	was		
Iodomethane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was	N	
Carbon disulfide	<360 ug/kg dry	360	50	06/06/18	was	06/06/18	was		
Methyl-tert-butyl ether	<360 ug/kg dry	360	50	06/06/18	was	06/06/18	was		
Methylene chloride	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
Acrylonitrile	<150 ug/kg dry	150	50	06/06/18	was	06/06/18	was	N	
trans-1,2-Dichloroethene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
1,1-Dichloroethane	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
Diisopropyl Ether	<360 ug/kg dry	360	50	06/06/18	was	06/06/18	was	N	
2-Butanone	<1100 ug/kg dry	1100	50	06/06/18	was	06/06/18	was		
cis-1,2-Dichloroethene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
t-Butyl Ethyl Ether	<360 ug/kg dry	360	50	06/06/18	was	06/06/18	was	N	
Bromochloromethane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
Tetrahydrofuran	<1500 ug/kg dry	1500	50	06/06/18	was	06/06/18	was	N	
Chloroform	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
1,1,1-Trichloroethane	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
Carbon tetrachloride	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
Benzene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
t-Amyl Methyl Ether	<360 ug/kg dry	360	50	06/06/18	was	06/06/18	was	N	
1,2-Dichloroethane	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
Cyclohexane	<360 ug/kg dry	360	50	06/06/18	was	06/06/18	was	N	
Trichloroethene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
1,2-Dichloropropane	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-06 Date Collected: 06/04/18 12:30 Matrix: Solid
Sample ID: MLNP-SS-5 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Dibromomethane	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
Bromodichloromethane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
cis-1,3-Dichloropropene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
4-Methyl-2-pentanone	<3600 ug/kg dry	3600	50	06/06/18	was	06/06/18	was		
Toluene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
trans-1,3-Dichloropropene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
1,1,2-Trichloroethane	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
Tetrachloroethene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
2-Hexanone	<3600 ug/kg dry	3600	50	06/06/18	was	06/06/18	was		
Dibromochloromethane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
1,2-Dibromoethane (EDB)	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
Chlorobenzene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
1,1,1,2-Tetrachloroethane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
Ethylbenzene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
m,p-Xylene	<150 ug/kg dry	150	50	06/06/18	was	06/06/18	was	N	
o-Xylene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was	N	
Xylenes, total	<220 ug/kg dry	220	50	06/06/18	was	06/06/18	was	N	
Styrene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
Bromoform	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
Isopropylbenzene	<250 ug/kg dry	250	50	06/06/18	was	06/06/18	was		
1,1,2,2-Tetrachloroethane	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
1,2,3-Trichloropropane	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
trans-1,4-Dichloro-2-butene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
Bromobenzene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
n-Propylbenzene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
1,3,5-Trimethylbenzene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
t-Butyl Benzene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
1,2,4-Trimethylbenzene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
sec-Butylbenzene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		
p-Isopropyltoluene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
1,3-Dichlorobenzene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
1,4-Dichlorobenzene	<100 ug/kg dry	100	50	06/06/18	was	06/06/18	was		
n-Butylbenzene	<73 ug/kg dry	73	50	06/06/18	was	06/06/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-06 Date Collected: 06/04/18 12:30 Matrix: Solid
Sample ID: MLNP-SS-5 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
1,2,3-Trimethylbenzene	<73	ug/kg dry	73	50	06/06/18	was	06/06/18	was	N	
1,2-Dichlorobenzene	<100	ug/kg dry	100	50	06/06/18	was	06/06/18	was		
1,2-Dibromo-3-chloropropane	<150	ug/kg dry	150	50	06/06/18	was	06/06/18	was		
Hexachloroethane	<100	ug/kg dry	100	50	06/06/18	was	06/06/18	was	N	
1,2,4-Trichlorobenzene	<330	ug/kg dry	330	50	06/06/18	was	06/06/18	was		
Naphthalene	<360	ug/kg dry	360	50	06/06/18	was	06/06/18	was	N	
1,2,3-Trichlorobenzene	<250	ug/kg dry	250	50	06/06/18	was	06/06/18	was		
2-Methylnaphthalene	<360	ug/kg dry	360	50	06/06/18	was	06/06/18	was	N	
Surrogates:										
1,2-Dichloroethane-d4	103	%	68-133	50	06/06/18	was	06/06/18	was		
Toluene-d8	100	%	75-120	50	06/06/18	was	06/06/18	was		
4-Bromofluorobenzene	103	%	69-119	50	06/06/18	was	06/06/18	was		
1,2-Dichlorobenzene-d4	101	%	72-127	50	06/06/18	was	06/06/18	was		
WET CHEMISTRY										
Analysis Method: ASTM D2974-87										
Batch: T077734										
% Solids	**73**	**% by Wt.**	**0.10**	**1**	**06/06/18**	**jm**	**06/06/18**	**jm**	**N**	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-07 Date Collected: 06/04/18 12:35 Matrix: Solid
Sample ID: MLNP-SS-6 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
METALS, TOTAL										
Analysis Method: EPA 7471A										
Batch: T077882										
Mercury	<0.050	mg/kg dry	0.050	1	06/11/18	gmr	06/11/18	edc		
METALS, TOTAL										
Analysis Method: EPA 6010B										
Batch: T077876										
Barium	**24**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Cadmium	**1.3**	**mg/kg dry**	**0.20**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Chromium	**29**	**mg/kg dry**	**2.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Copper	**32**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Lead	**57**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Zinc	**45**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Analysis Method: EPA 6020										
Batch: T077876										
Arsenic	**4.3**	**mg/kg dry**	**0.12**	**10**	**06/11/18**	**gmr**	**06/12/18**	**nws**		
Selenium	**0.43**	**mg/kg dry**	**0.20**	**10**	**06/11/18**	**gmr**	**06/12/18**	**nws**		
Silver	<0.10	mg/kg dry	0.10	10	06/11/18	gmr	06/12/18	nws		
PESTICIDES/PCBS										
Analysis Method: EPA 8082A										
Batch: T077815										
Aroclor-1016	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1221	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1232	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1242	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1248	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1254	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1260	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Surrogates:										
Tetrachloro-m-xylene	76	%	40-113	1	06/07/18	kbc	06/08/18	tml	N	
Decachlorobiphenyl	90	%	32-111	1	06/07/18	kbc	06/08/18	tml	N	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-07 Date Collected: 06/04/18 12:35 Matrix: Solid
Sample ID: MLNP-SS-6 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
PESTICIDES/PCBS										
SEMI-VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8270C										
Batch: T077846										
Naphthalene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
2-Methylnaphthalene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Acenaphthylene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Acenaphthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Fluorene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Phenanthrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (a) anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Chrysene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (b) fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (k) fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (a) pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Indeno (1,2,3-cd) pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Dibenz (a,h) anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (g,h,i) perylene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Surrogates:										
Nitrobenzene-d5	61	%	36-98	1	06/08/18	kbc	06/08/18	avl		
2-Fluorobiphenyl	56	%	44-105	1	06/08/18	kbc	06/08/18	avl		
Terphenyl-d14	64	%	46-109	1	06/08/18	kbc	06/08/18	avl		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-07 Date Collected: 06/04/18 12:35 Matrix: Solid
Sample ID: MLNP-SS-6 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Analysis Method: EPA 8260C									
Batch: T077918									
Dichlorodifluoromethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Chloromethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Vinyl chloride	<46 ug/kg dry	46	50	06/12/18	was	06/12/18	was	N	
Bromomethane	<200 ug/kg dry	200	50	06/12/18	was	06/12/18	was		
Chloroethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Trichlorofluoromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Diethyl ether	<230 ug/kg dry	230	50	06/12/18	was	06/12/18	was	N	
Tert-butyl alcohol	<2900 ug/kg dry	2900	50	06/12/18	was	06/12/18	was	N	
1,1-Dichloroethene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
Acetone	<1000 ug/kg dry	1000	50	06/12/18	was	06/12/18	was		
Iodomethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
Carbon disulfide	<290 ug/kg dry	290	50	06/12/18	was	06/12/18	was		
Methyl-tert-butyl ether	<290 ug/kg dry	290	50	06/12/18	was	06/12/18	was		
Methylene chloride	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Acrylonitrile	<110 ug/kg dry	110	50	06/12/18	was	06/12/18	was	N	
trans-1,2-Dichloroethene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
1,1-Dichloroethane	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
Diisopropyl Ether	<290 ug/kg dry	290	50	06/12/18	was	06/12/18	was	N	
2-Butanone	<860 ug/kg dry	860	50	06/12/18	was	06/12/18	was		
cis-1,2-Dichloroethene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
t-Butyl Ethyl Ether	<290 ug/kg dry	290	50	06/12/18	was	06/12/18	was	N	
Bromochloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Tetrahydrofuran	<1100 ug/kg dry	1100	50	06/12/18	was	06/12/18	was	N	
Chloroform	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
1,1,1-Trichloroethane	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
Carbon tetrachloride	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
Benzene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
t-Amyl Methyl Ether	<290 ug/kg dry	290	50	06/12/18	was	06/12/18	was	N	
1,2-Dichloroethane	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
Cyclohexane	<290 ug/kg dry	290	50	06/12/18	was	06/12/18	was	N	
Trichloroethene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
1,2-Dichloropropane	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-07 Date Collected: 06/04/18 12:35 Matrix: Solid
Sample ID: MLNP-SS-6 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Dibromomethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Bromodichloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
cis-1,3-Dichloropropene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
4-Methyl-2-pentanone	<2900 ug/kg dry	2900	50	06/12/18	was	06/12/18	was		
Toluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,3-Dichloropropene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
1,1,2-Trichloroethane	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
Tetrachloroethene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
2-Hexanone	<2900 ug/kg dry	2900	50	06/12/18	was	06/12/18	was		
Dibromochloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromoethane (EDB)	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
Chlorobenzene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
1,1,1,2-Tetrachloroethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Ethylbenzene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
m,p-Xylene	<110 ug/kg dry	110	50	06/12/18	was	06/12/18	was	N	
o-Xylene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was	N	
Xylenes, total	<170 ug/kg dry	170	50	06/12/18	was	06/12/18	was	N	
Styrene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
Bromoform	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Isopropylbenzene	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
1,1,2,2-Tetrachloroethane	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
1,2,3-Trichloropropane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,4-Dichloro-2-butene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
Bromobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Propylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3,5-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
t-Butyl Benzene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
1,2,4-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
sec-Butylbenzene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		
p-Isopropyltoluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,4-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Butylbenzene	<57 ug/kg dry	57	50	06/12/18	was	06/12/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-07 Date Collected: 06/04/18 12:35 Matrix: Solid
Sample ID: MLNP-SS-6 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
1,2,3-Trimethylbenzene	<57	ug/kg dry	57	50	06/12/18	was	06/12/18	was	N	
1,2-Dichlorobenzene	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromo-3-chloropropane	<110	ug/kg dry	110	50	06/12/18	was	06/12/18	was		
Hexachloroethane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
1,2,4-Trichlorobenzene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was		
Naphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
1,2,3-Trichlorobenzene	<250	ug/kg dry	250	50	06/12/18	was	06/12/18	was		
2-Methylnaphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
Surrogates:										
1,2-Dichloroethane-d4	106	%	68-133	50	06/12/18	was	06/12/18	was		
Toluene-d8	95	%	75-120	50	06/12/18	was	06/12/18	was		
4-Bromofluorobenzene	104	%	69-119	50	06/12/18	was	06/12/18	was		
1,2-Dichlorobenzene-d4	102	%	72-127	50	06/12/18	was	06/12/18	was		
WET CHEMISTRY										
Analysis Method: ASTM D2974-87										
Batch: T077734										
% Solids	**87**	**% by Wt.**	**0.10**	**1**	**06/05/18**	**jm**	**06/05/18**	**jm**	**N**	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-08 Date Collected: 06/04/18 12:50 Matrix: Solid
Sample ID: MLNP-SS-7 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
METALS, TOTAL										
Analysis Method: EPA 7471A										
Batch: T077882										
Mercury	<0.050	mg/kg dry	0.050	1	06/11/18	gmr	06/11/18	edc		
METALS, TOTAL										
Analysis Method: EPA 6010B										
Batch: T077876										
Barium	**7.4**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Cadmium	**2.4**	**mg/kg dry**	**0.20**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Chromium	**72**	**mg/kg dry**	**2.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Copper	**79**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Lead	**19**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Zinc	**13**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Analysis Method: EPA 6020										
Batch: T077876										
Arsenic	**4.8**	**mg/kg dry**	**0.11**	**10**	**06/11/18**	**gmr**	**06/12/18**	**nws**		
Selenium	**0.20**	**mg/kg dry**	**0.20**	**10**	**06/11/18**	**gmr**	**06/12/18**	**nws**		
Silver	<0.10	mg/kg dry	0.10	10	06/11/18	gmr	06/12/18	nws		
PESTICIDES/PCBS										
Analysis Method: EPA 8082A										
Batch: T077815										
Aroclor-1016	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1221	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1232	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1242	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1248	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1254	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1260	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Surrogates:										
Tetrachloro-m-xylene	64	%	40-113	1	06/07/18	kbc	06/08/18	tml	N	
Decachlorobiphenyl	66	%	32-111	1	06/07/18	kbc	06/08/18	tml	N	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-08 Date Collected: 06/04/18 12:50 Matrix: Solid
Sample ID: MLNP-SS-7 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
PESTICIDES/PCBS										
SEMI-VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8270C										
Batch: T077846										
Naphthalene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
2-Methylnaphthalene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Acenaphthylene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Acenaphthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Fluorene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Phenanthrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (a) anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Chrysene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (b) fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (k) fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (a) pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Indeno (1,2,3-cd) pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Dibenz (a,h) anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (g,h,i) perylene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Surrogates:										
Nitrobenzene-d5	71	%	36-98	1	06/08/18	kbc	06/08/18	avl		
2-Fluorobiphenyl	61	%	44-105	1	06/08/18	kbc	06/08/18	avl		
Terphenyl-d14	74	%	46-109	1	06/08/18	kbc	06/08/18	avl		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-08 | Date Collected: 06/04/18 12:50 | Matrix: Solid
Sample ID: MLNP-SS-7 | Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Analysis Method: EPA 8260C									
Batch: T077918									
Dichlorodifluoromethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Chloromethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Vinyl chloride	<42 ug/kg dry	42	50	06/12/18	was	06/12/18	was	N	
Bromomethane	<200 ug/kg dry	200	50	06/12/18	was	06/12/18	was		
Chloroethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Trichlorofluoromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Diethyl ether	<210 ug/kg dry	210	50	06/12/18	was	06/12/18	was	N	
Tert-butyl alcohol	<2600 ug/kg dry	2600	50	06/12/18	was	06/12/18	was	N	
1,1-Dichloroethene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
Acetone	<1000 ug/kg dry	1000	50	06/12/18	was	06/12/18	was		
Iodomethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
Carbon disulfide	<260 ug/kg dry	260	50	06/12/18	was	06/12/18	was		
Methyl-tert-butyl ether	<260 ug/kg dry	260	50	06/12/18	was	06/12/18	was		
Methylene chloride	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Acrylonitrile	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
trans-1,2-Dichloroethene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
1,1-Dichloroethane	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
Diisopropyl Ether	<260 ug/kg dry	260	50	06/12/18	was	06/12/18	was	N	
2-Butanone	<780 ug/kg dry	780	50	06/12/18	was	06/12/18	was		
cis-1,2-Dichloroethene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
t-Butyl Ethyl Ether	<260 ug/kg dry	260	50	06/12/18	was	06/12/18	was	N	
Bromochloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Tetrahydrofuran	<1000 ug/kg dry	1000	50	06/12/18	was	06/12/18	was	N	
Chloroform	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
1,1,1-Trichloroethane	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
Carbon tetrachloride	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
Benzene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
t-Amyl Methyl Ether	<260 ug/kg dry	260	50	06/12/18	was	06/12/18	was	N	
1,2-Dichloroethane	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
Cyclohexane	<260 ug/kg dry	260	50	06/12/18	was	06/12/18	was	N	
Trichloroethene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
1,2-Dichloropropane	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-08 Date Collected: 06/04/18 12:50 Matrix: Solid
Sample ID: MLNP-SS-7 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Dibromomethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Bromodichloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
cis-1,3-Dichloropropene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
4-Methyl-2-pentanone	<2600 ug/kg dry	2600	50	06/12/18	was	06/12/18	was		
Toluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,3-Dichloropropene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
1,1,2-Trichloroethane	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
Tetrachloroethene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
2-Hexanone	<2600 ug/kg dry	2600	50	06/12/18	was	06/12/18	was		
Dibromochloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromoethane (EDB)	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
Chlorobenzene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
1,1,1,2-Tetrachloroethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Ethylbenzene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
m,p-Xylene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
o-Xylene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was	N	
Xylenes, total	<160 ug/kg dry	160	50	06/12/18	was	06/12/18	was	N	
Styrene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
Bromoform	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Isopropylbenzene	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
1,1,2,2-Tetrachloroethane	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
1,2,3-Trichloropropane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,4-Dichloro-2-butene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
Bromobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Propylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3,5-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
t-Butyl Benzene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
1,2,4-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
sec-Butylbenzene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		
p-Isopropyltoluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,4-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Butylbenzene	<52 ug/kg dry	52	50	06/12/18	was	06/12/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-08 Date Collected: 06/04/18 12:50 Matrix: Solid
Sample ID: MLNP-SS-7 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
1,2,3-Trimethylbenzene	<52	ug/kg dry	52	50	06/12/18	was	06/12/18	was	N	
1,2-Dichlorobenzene	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromo-3-chloropropane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Hexachloroethane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
1,2,4-Trichlorobenzene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was		
Naphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
1,2,3-Trichlorobenzene	<250	ug/kg dry	250	50	06/12/18	was	06/12/18	was		
2-Methylnaphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
Surrogates:										
1,2-Dichloroethane-d4	103	%	68-133	50	06/12/18	was	06/12/18	was		
Toluene-d8	96	%	75-120	50	06/12/18	was	06/12/18	was		
4-Bromofluorobenzene	102	%	69-119	50	06/12/18	was	06/12/18	was		
1,2-Dichlorobenzene-d4	101	%	72-127	50	06/12/18	was	06/12/18	was		
WET CHEMISTRY										
Analysis Method: ASTM D2974-87										
Batch: T077734										
% Solids	**88**	**% by Wt.**	**0.10**	**1**	**06/05/18**	**jm**	**06/05/18**	**jm**	**N**	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-09 Date Collected: 06/04/18 13:10 Matrix: Solid
Sample ID: MLNP-SS-8 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
METALS, TOTAL										
Analysis Method: EPA 7471A										
Batch: T077882										
Mercury	<0.050	mg/kg dry	0.050	1	06/11/18	gmr	06/11/18	edc		
METALS, TOTAL										
Analysis Method: EPA 6010B										
Batch: T077876										
Barium	**13**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Cadmium	**0.24**	**mg/kg dry**	**0.20**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Chromium	**11**	**mg/kg dry**	**2.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Copper	**5.0**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Lead	**4.9**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Zinc	**39**	**mg/kg dry**	**1.0**	**1**	**06/11/18**	**gmr**	**06/12/18**	**edc**		
Analysis Method: EPA 6020										
Batch: T077876										
Arsenic	**0.63**	**mg/kg dry**	**0.11**	**10**	**06/11/18**	**gmr**	**06/12/18**	**nws**		
Selenium	<0.20	mg/kg dry	0.20	10	06/11/18	gmr	06/12/18	nws		
Silver	<0.10	mg/kg dry	0.10	10	06/11/18	gmr	06/12/18	nws		
PESTICIDES/PCBS										
Analysis Method: EPA 8082A										
Batch: T077815										
Aroclor-1016	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1221	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1232	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1242	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1248	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1254	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Aroclor-1260	<330	ug/kg dry	330	1	06/07/18	kbc	06/08/18	tml		
Surrogates:										
Tetrachloro-m-xylene	63	%	40-113	1	06/07/18	kbc	06/08/18	tml	N	
Decachlorobiphenyl	70	%	32-111	1	06/07/18	kbc	06/08/18	tml	N	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-09 Date Collected: 06/04/18 13:10 Matrix: Solid
Sample ID: MLNP-SS-8 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
PESTICIDES/PCBS										
SEMI-VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8270C										
Batch: T077846										
Naphthalene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
2-Methylnaphthalene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Acenaphthylene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Acenaphthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Fluorene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Phenanthrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (a) anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Chrysene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (b) fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (k) fluoranthene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (a) pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Indeno (1,2,3-cd) pyrene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Dibenz (a,h) anthracene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Benzo (g,h,i) perylene	<330	ug/kg dry	330	1	06/08/18	kbc	06/08/18	avl		
Surrogates:										
Nitrobenzene-d5	75	%	36-98	1	06/08/18	kbc	06/08/18	avl		
2-Fluorobiphenyl	71	%	44-105	1	06/08/18	kbc	06/08/18	avl		
Terphenyl-d14	76	%	46-109	1	06/08/18	kbc	06/08/18	avl		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-09 Date Collected: 06/04/18 13:10 Matrix: Solid
Sample ID: MLNP-SS-8 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Analysis Method: EPA 8260C									
Batch: T077918									
Dichlorodifluoromethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Chloromethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Vinyl chloride	<40 ug/kg dry	40	50	06/12/18	was	06/12/18	was	N	
Bromomethane	<200 ug/kg dry	200	50	06/12/18	was	06/12/18	was		
Chloroethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Trichlorofluoromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Diethyl ether	<200 ug/kg dry	200	50	06/12/18	was	06/12/18	was	N	
Tert-butyl alcohol	<2500 ug/kg dry	2500	50	06/12/18	was	06/12/18	was	N	
1,1-Dichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Acetone	<1000 ug/kg dry	1000	50	06/12/18	was	06/12/18	was		
Iodomethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
Carbon disulfide	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Methyl-tert-butyl ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Methylene chloride	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Acrylonitrile	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
trans-1,2-Dichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1-Dichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Diisopropyl Ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
2-Butanone	<750 ug/kg dry	750	50	06/12/18	was	06/12/18	was		
cis-1,2-Dichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
t-Butyl Ethyl Ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
Bromochloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Tetrahydrofuran	<1000 ug/kg dry	1000	50	06/12/18	was	06/12/18	was	N	
Chloroform	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1,1-Trichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Carbon tetrachloride	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Benzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
t-Amyl Methyl Ether	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
1,2-Dichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Cyclohexane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was	N	
Trichloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,2-Dichloropropane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-09 Date Collected: 06/04/18 13:10 Matrix: Solid
Sample ID: MLNP-SS-8 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Dibromomethane	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
Bromodichloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
cis-1,3-Dichloropropene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
4-Methyl-2-pentanone	<2500 ug/kg dry	2500	50	06/12/18	was	06/12/18	was		
Toluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,3-Dichloropropene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1,2-Trichloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Tetrachloroethene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
2-Hexanone	<2500 ug/kg dry	2500	50	06/12/18	was	06/12/18	was		
Dibromochloromethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromoethane (EDB)	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Chlorobenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,1,1,2-Tetrachloroethane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Ethylbenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
m,p-Xylene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
o-Xylene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was	N	
Xylenes, total	<150 ug/kg dry	150	50	06/12/18	was	06/12/18	was	N	
Styrene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Bromoform	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Isopropylbenzene	<250 ug/kg dry	250	50	06/12/18	was	06/12/18	was		
1,1,2,2-Tetrachloroethane	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,2,3-Trichloropropane	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
trans-1,4-Dichloro-2-butene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
Bromobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Propylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3,5-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
t-Butyl Benzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
1,2,4-Trimethylbenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
sec-Butylbenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		
p-Isopropyltoluene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,3-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,4-Dichlorobenzene	<100 ug/kg dry	100	50	06/12/18	was	06/12/18	was		
n-Butylbenzene	<50 ug/kg dry	50	50	06/12/18	was	06/12/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-09 Date Collected: 06/04/18 13:10 Matrix: Solid
Sample ID: MLNP-SS-8 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
1,2,3-Trimethylbenzene	<50	ug/kg dry	50	50	06/12/18	was	06/12/18	was	N	
1,2-Dichlorobenzene	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
1,2-Dibromo-3-chloropropane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was		
Hexachloroethane	<100	ug/kg dry	100	50	06/12/18	was	06/12/18	was	N	
1,2,4-Trichlorobenzene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was		
Naphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
1,2,3-Trichlorobenzene	<250	ug/kg dry	250	50	06/12/18	was	06/12/18	was		
2-Methylnaphthalene	<330	ug/kg dry	330	50	06/12/18	was	06/12/18	was	N	
Surrogates:										
1,2-Dichloroethane-d4	106	%	68-133	50	06/12/18	was	06/12/18	was		
Toluene-d8	97	%	75-120	50	06/12/18	was	06/12/18	was		
4-Bromofluorobenzene	102	%	69-119	50	06/12/18	was	06/12/18	was		
1,2-Dichlorobenzene-d4	100	%	72-127	50	06/12/18	was	06/12/18	was		
WET CHEMISTRY										
Analysis Method: ASTM D2974-87										
Batch: T077734										
% Solids	**94**	**% by Wt.**	**0.10**	**1**	**06/05/18**	**jm**	**06/05/18**	**jm**	**N**	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-10 | Date Collected: 06/04/18 13:00 | Matrix: Ground Water
Sample ID: MLNP-GW-8 | Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
SEMI-VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8270C										
Batch: T077766										
Naphthalene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
2-Methylnaphthalene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Acenaphthylene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Acenaphthene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Fluorene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Phenanthrene	<2.0	ug/L	2.0	1	06/06/18	kbc	06/07/18	avl		
Anthracene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Fluoranthene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Pyrene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (a) anthracene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Chrysene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (b) fluoranthene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (k) fluoranthene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (a) pyrene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Indeno (1,2,3-cd) pyrene	<2.0	ug/L	2.0	1	06/06/18	kbc	06/07/18	avl		
Dibenz (a,h) anthracene	<2.0	ug/L	2.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (g,h,i) perylene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Surrogates:										
Nitrobenzene-d5	67	%	36-103	1	06/06/18	kbc	06/07/18	avl		
2-Fluorobiphenyl	61	%	36-119	1	06/06/18	kbc	06/07/18	avl		
Terphenyl-d14	70	%	37-109	1	06/06/18	kbc	06/07/18	avl		
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8260C										
Batch: T077784										
Dichlorodifluoromethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Chloromethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Vinyl chloride	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Bromomethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Chloroethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Trichlorofluoromethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Diethyl ether	<10	ug/L	10	1	06/06/18	was	06/06/18	was	N	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-10 | Date Collected: 06/04/18 13:00 | Matrix: Ground Water
Sample ID: MLNP-GW-8 | Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Tert-butyl alcohol	<50 ug/L	50	1	06/06/18	was	06/06/18	was	N	
1,1-Dichloroethene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Acetone	<50 ug/L	50	1	06/06/18	was	06/06/18	was		
Iodomethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was	N	
Carbon disulfide	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was		
Methyl-tert-butyl ether	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was		
Methylene chloride	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was		
Acrylonitrile	<2.0 ug/L	2.0	1	06/06/18	was	06/06/18	was		
trans-1,2-Dichloroethene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,1-Dichloroethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Diisopropyl Ether	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
2-Butanone	<25 ug/L	25	1	06/06/18	was	06/06/18	was		
cis-1,2-Dichloroethene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
t-Butyl Ethyl Ether	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
Bromochloromethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Tetrahydrofuran	<90 ug/L	90	1	06/06/18	was	06/06/18	was	N	
Chloroform	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Carbon tetrachloride	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Benzene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
t-Amyl Methyl Ether	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
1,2-Dichloroethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Cyclohexane	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
Trichloroethene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2-Dichloropropane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Dibromomethane	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was		
Bromodichloromethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
4-Methyl-2-pentanone	<50 ug/L	50	1	06/06/18	was	06/06/18	was		
Toluene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Tetrachloroethene	**3.4 ug/L**	**1.0**	**1**	**06/06/18**	**was**	**06/06/18**	**was**		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-10 | Date Collected: 06/04/18 13:00 | Matrix: Ground Water
Sample ID: MLNP-GW-8 | Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
2-Hexanone	<50	ug/L	50	1	06/06/18	was	06/06/18	was		
Dibromochloromethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
1,2-Dibromoethane (EDB)	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Chlorobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,1,1,2-Tetrachloroethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Ethylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
m,p-Xylene	<2.0	ug/L	2.0	1	06/06/18	was	06/06/18	was	N	
o-Xylene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was	N	
Xylenes, total	<3.0	ug/L	3.0	1	06/06/18	was	06/06/18	was	N	
Styrene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Bromoform	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Isopropylbenzene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
1,1,2,2-Tetrachloroethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2,3-Trichloropropane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
trans-1,4-Dichloro-2-butene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Bromobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
n-Propylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,3,5-Trimethylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
t-Butyl Benzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2,4-Trimethylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
sec-Butylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
p-Isopropyltoluene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
1,3-Dichlorobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,4-Dichlorobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
n-Butylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2,3-Trimethylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was	N	
1,2-Dichlorobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2-Dibromo-3-chloropropane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Hexachloroethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
1,2,4-Trichlorobenzene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Naphthalene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
1,2,3-Trichlorobenzene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
2-Methylnaphthalene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
Surrogates:										

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-10 Date Collected: 06/04/18 13:00 Matrix: Ground Water
Sample ID: MLNP-GW-8 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
1,2-Dichloroethane-d4	103	%	68-133	1	06/06/18	was	06/06/18	was		
Toluene-d8	105	%	75-120	1	06/06/18	was	06/06/18	was		
4-Bromofluorobenzene	102	%	69-119	1	06/06/18	was	06/06/18	was		
1,2-Dichlorobenzene-d4	103	%	72-127	1	06/06/18	was	06/06/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-11 | Date Collected: 06/04/18 13:45 | Matrix: Ground Water
Sample ID: MLNP-GW-7 | Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
SEMI-VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8270C										
Batch: T077766										
Naphthalene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
2-Methylnaphthalene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Acenaphthylene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Acenaphthene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Fluorene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Phenanthrene	<2.0	ug/L	2.0	1	06/06/18	kbc	06/07/18	avl		
Anthracene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Fluoranthene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Pyrene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (a) anthracene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Chrysene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (b) fluoranthene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (k) fluoranthene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (a) pyrene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Indeno (1,2,3-cd) pyrene	<2.0	ug/L	2.0	1	06/06/18	kbc	06/07/18	avl		
Dibenz (a,h) anthracene	<2.0	ug/L	2.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (g,h,i) perylene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Surrogates:										
Nitrobenzene-d5	62	%	36-103	1	06/06/18	kbc	06/07/18	avl		
2-Fluorobiphenyl	58	%	36-119	1	06/06/18	kbc	06/07/18	avl		
Terphenyl-d14	71	%	37-109	1	06/06/18	kbc	06/07/18	avl		
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8260C										
Batch: T077784										
Dichlorodifluoromethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Chloromethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Vinyl chloride	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Bromomethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Chloroethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Trichlorofluoromethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Diethyl ether	<10	ug/L	10	1	06/06/18	was	06/06/18	was	N	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-11 | Date Collected: 06/04/18 13:45 | Matrix: Ground Water
Sample ID: MLNP-GW-7 | Date Received: 06/04/18 14:44

PARAMETERS	RESULTS UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS									
Tert-butyl alcohol	<50 ug/L	50	1	06/06/18	was	06/06/18	was	N	
1,1-Dichloroethene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Acetone	<50 ug/L	50	1	06/06/18	was	06/06/18	was		
Iodomethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was	N	
Carbon disulfide	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was		
Methyl-tert-butyl ether	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was		
Methylene chloride	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was		
Acrylonitrile	<2.0 ug/L	2.0	1	06/06/18	was	06/06/18	was		
trans-1,2-Dichloroethene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,1-Dichloroethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Diisopropyl Ether	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
2-Butanone	<25 ug/L	25	1	06/06/18	was	06/06/18	was		
cis-1,2-Dichloroethene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
t-Butyl Ethyl Ether	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
Bromochloromethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Tetrahydrofuran	<90 ug/L	90	1	06/06/18	was	06/06/18	was	N	
Chloroform	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Carbon tetrachloride	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Benzene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
t-Amyl Methyl Ether	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
1,2-Dichloroethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Cyclohexane	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
Trichloroethene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2-Dichloropropane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Dibromomethane	<5.0 ug/L	5.0	1	06/06/18	was	06/06/18	was		
Bromodichloromethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
4-Methyl-2-pentanone	<50 ug/L	50	1	06/06/18	was	06/06/18	was		
Toluene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1	06/06/18	was	06/06/18	was		
Tetrachloroethene	**1.3 ug/L**	**1.0**	**1**	**06/06/18**	**was**	**06/06/18**	**was**		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-11 Date Collected: 06/04/18 13:45 Matrix: Ground Water
Sample ID: MLNP-GW-7 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
2-Hexanone	<50	ug/L	50	1	06/06/18	was	06/06/18	was		
Dibromochloromethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
1,2-Dibromoethane (EDB)	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Chlorobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,1,1,2-Tetrachloroethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Ethylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
m,p-Xylene	<2.0	ug/L	2.0	1	06/06/18	was	06/06/18	was	N	
o-Xylene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was	N	
Xylenes, total	<3.0	ug/L	3.0	1	06/06/18	was	06/06/18	was	N	
Styrene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Bromoform	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Isopropylbenzene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
1,1,2,2-Tetrachloroethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2,3-Trichloropropane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
trans-1,4-Dichloro-2-butene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Bromobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
n-Propylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,3,5-Trimethylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
t-Butyl Benzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2,4-Trimethylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
sec-Butylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
p-Isopropyltoluene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
1,3-Dichlorobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,4-Dichlorobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
n-Butylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2,3-Trimethylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was	N	
1,2-Dichlorobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2-Dibromo-3-chloropropane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Hexachloroethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
1,2,4-Trichlorobenzene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Naphthalene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
1,2,3-Trichlorobenzene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
2-Methylnaphthalene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
Surrogates:										

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-11 Date Collected: 06/04/18 13:45 Matrix: Ground Water
Sample ID: MLNP-GW-7 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
1,2-Dichloroethane-d4	104	%	68-133	1	06/06/18	was	06/06/18	was		
Toluene-d8	101	%	75-120	1	06/06/18	was	06/06/18	was		
4-Bromofluorobenzene	99	%	69-119	1	06/06/18	was	06/06/18	was		
1,2-Dichlorobenzene-d4	95	%	72-127	1	06/06/18	was	06/06/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-12 | Date Collected: 06/04/18 14:00 | Matrix: Ground Water
Sample ID: MLNP-GW-4 | Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
SEMI-VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8270C										
Batch: T077766										
Naphthalene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
2-Methylnaphthalene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Acenaphthylene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Acenaphthene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Fluorene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Phenanthrene	<2.0	ug/L	2.0	1	06/06/18	kbc	06/07/18	avl		
Anthracene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Fluoranthene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Pyrene	<5.0	ug/L	5.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (a) anthracene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Chrysene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (b) fluoranthene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (k) fluoranthene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (a) pyrene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Indeno (1,2,3-cd) pyrene	<2.0	ug/L	2.0	1	06/06/18	kbc	06/07/18	avl		
Dibenz (a,h) anthracene	<2.0	ug/L	2.0	1	06/06/18	kbc	06/07/18	avl		
Benzo (g,h,i) perylene	<1.0	ug/L	1.0	1	06/06/18	kbc	06/07/18	avl		
Surrogates:										
Nitrobenzene-d5	61	%	36-103	1	06/06/18	kbc	06/07/18	avl		
2-Fluorobiphenyl	58	%	36-119	1	06/06/18	kbc	06/07/18	avl		
Terphenyl-d14	65	%	37-109	1	06/06/18	kbc	06/07/18	avl		
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Analysis Method: EPA 8260C										
Batch: T077784										
Dichlorodifluoromethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Chloromethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Vinyl chloride	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Bromomethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Chloroethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Trichlorofluoromethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Diethyl ether	<10	ug/L	10	1	06/06/18	was	06/06/18	was	N	

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-12 Date Collected: 06/04/18 14:00 Matrix: Ground Water
Sample ID: MLNP-GW-4 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
Tert-butyl alcohol	<50	ug/L	50	1	06/06/18	was	06/06/18	was	N	
1,1-Dichloroethene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Acetone	<50	ug/L	50	1	06/06/18	was	06/06/18	was		
Iodomethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was	N	
Carbon disulfide	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Methyl-tert-butyl ether	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Methylene chloride	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Acrylonitrile	<2.0	ug/L	2.0	1	06/06/18	was	06/06/18	was		
trans-1,2-Dichloroethene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,1-Dichloroethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Diisopropyl Ether	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
2-Butanone	<25	ug/L	25	1	06/06/18	was	06/06/18	was		
cis-1,2-Dichloroethene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
t-Butyl Ethyl Ether	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
Bromochloromethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Tetrahydrofuran	<90	ug/L	90	1	06/06/18	was	06/06/18	was	N	
Chloroform	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,1,1-Trichloroethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Carbon tetrachloride	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Benzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
t-Amyl Methyl Ether	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
1,2-Dichloroethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Cyclohexane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
Trichloroethene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2-Dichloropropane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Dibromomethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Bromodichloromethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
cis-1,3-Dichloropropene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
4-Methyl-2-pentanone	<50	ug/L	50	1	06/06/18	was	06/06/18	was		
Toluene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
trans-1,3-Dichloropropene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,1,2-Trichloroethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Tetrachloroethene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-12 Date Collected: 06/04/18 14:00 Matrix: Ground Water
Sample ID: MLNP-GW-4 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
2-Hexanone	<50	ug/L	50	1	06/06/18	was	06/06/18	was		
Dibromochloromethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
1,2-Dibromoethane (EDB)	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Chlorobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,1,1,2-Tetrachloroethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Ethylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
m,p-Xylene	<2.0	ug/L	2.0	1	06/06/18	was	06/06/18	was	N	
o-Xylene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was	N	
Xylenes, total	<3.0	ug/L	3.0	1	06/06/18	was	06/06/18	was	N	
Styrene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Bromoform	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Isopropylbenzene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
1,1,2,2-Tetrachloroethane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2,3-Trichloropropane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
trans-1,4-Dichloro-2-butene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Bromobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
n-Propylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,3,5-Trimethylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
t-Butyl Benzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2,4-Trimethylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
sec-Butylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
p-Isopropyltoluene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
1,3-Dichlorobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,4-Dichlorobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
n-Butylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2,3-Trimethylbenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was	N	
1,2-Dichlorobenzene	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
1,2-Dibromo-3-chloropropane	<1.0	ug/L	1.0	1	06/06/18	was	06/06/18	was		
Hexachloroethane	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
1,2,4-Trichlorobenzene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
Naphthalene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
1,2,3-Trichlorobenzene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was		
2-Methylnaphthalene	<5.0	ug/L	5.0	1	06/06/18	was	06/06/18	was	N	
Surrogates:										

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ANALYTICAL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

Trace ID: T18F057-12 Date Collected: 06/04/18 14:00 Matrix: Ground Water
Sample ID: MLNP-GW-4 Date Received: 06/04/18 14:44

PARAMETERS	RESULTS	UNITS	RDL	DILUTION	PREPARED	BY	ANALYZED	BY	NOTES	MCL
VOLATILE ORGANIC COMPOUNDS BY GC-MS										
1,2-Dichloroethane-d4	106	%	68-133	1	06/06/18	was	06/06/18	was		
Toluene-d8	106	%	75-120	1	06/06/18	was	06/06/18	was		
4-Bromofluorobenzene	107	%	69-119	1	06/06/18	was	06/06/18	was		
1,2-Dichlorobenzene-d4	100	%	72-127	1	06/06/18	was	06/06/18	was		

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QUALITY CONTROL RESULTS

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077773
QC Batch Method: EPA 7471A Prep
Analysis Description: Mercury, Total, EPA 7470/7471
Analysis Method: EPA 7471A

METHOD BLANK: T077773-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Mercury	mg/kg wet	<0.050	0.050	

LABORATORY CONTROL SAMPLE: T077773-BS2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
Mercury	mg/kg wet	0.800	0.774	97	77-122	

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077882
QC Batch Method: EPA 7471A Prep
Analysis Description: Mercury, Total, EPA 7470/7471
Analysis Method: EPA 7471A

METHOD BLANK: T077882-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Mercury	mg/kg wet	<0.050	0.050	

LABORATORY CONTROL SAMPLE: T077882-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
Mercury	mg/kg wet	0.800	0.824	103	77-122	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE: T077882-MSD1 Original: **T18F057-01**

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Notes
Mercury	mg/kg dry	0.00771	0.806	0.755	0.822	100	101	76-123	1	20	

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077728
QC Batch Method: EPA 3051 Microwave Assisted Digestions for Solids
Analysis Description: Cadmium, Total
Analysis Method: EPA 6010B

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METHOD BLANK: T077728-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Barium	mg/kg dry	<1.0	1.0	
Cadmium	mg/kg dry	<0.20	0.20	
Chromium	mg/kg dry	<2.0	2.0	
Copper	mg/kg dry	<1.0	1.0	
Lead	mg/kg dry	<1.0	1.0	
Zinc	mg/kg dry	<1.0	1.0	

LABORATORY CONTROL SAMPLE: T077728-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
Barium	mg/kg dry	40.0	36.9	92	80-120	
Cadmium	mg/kg dry	40.0	35.9	90	80-120	
Chromium	mg/kg dry	40.0	37.4	93	80-120	
Copper	mg/kg dry	40.0	37.5	94	80-120	
Lead	mg/kg dry	40.0	36.0	90	80-120	
Zinc	mg/kg dry	40.0	34.8	87	80-120	

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077876
QC Batch Method: EPA 3051 Microwave Assisted Digestions for Solids

Analysis Description: Copper, Total
Analysis Method: EPA 6010B

METHOD BLANK: T077876-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Barium	mg/kg dry	<1.0	1.0	
Cadmium	mg/kg dry	<0.20	0.20	
Chromium	mg/kg dry	<2.0	2.0	
Copper	mg/kg dry	<1.0	1.0	
Lead	mg/kg dry	<1.0	1.0	
Zinc	mg/kg dry	<1.0	1.0	

LABORATORY CONTROL SAMPLE: T077876-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
Barium	mg/kg dry	40.0	34.4	86	80-120	
Cadmium	mg/kg dry	40.0	33.6	84	80-120	
Chromium	mg/kg dry	40.0	35.7	89	80-120	
Copper	mg/kg dry	40.0	35.0	88	80-120	

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LABORATORY CONTROL SAMPLE: T077876-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
Lead	mg/kg dry	40.0	33.3	83	80-120	
Zinc	mg/kg dry	40.0	33.7	84	80-120	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE: T077876-MSD1 Original: **T18F057-01**

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Notes
Barium	**mg/kg dry**	**10.9**	**38.4**	**40.7**	**48.4**	**77**	**98**	**75-125**	**24**	**20**	**207**
Cadmium	mg/kg dry	0.982	38.4	31.4	35.4	79	90	75-125	13	20	
Chromium	mg/kg dry	9.76	38.4	42.4	49.3	84	103	75-125	20	20	
Copper	mg/kg dry	11.2	38.4	46.5	46.1	91	91	75-125	0.2	20	
Lead	**mg/kg dry**	**52.4**	**38.4**	**86.0**	**99.4**	**87**	**122**	**75-125**	**34**	**20**	**207**
Zinc	mg/kg dry	71.6	38.4	111	116	101	117	75-125	14	20	

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077728
QC Batch Method: EPA 3051 Microwave Assisted Digestions for Solids
Analysis Description: Silver, Total
Analysis Method: EPA 6020

METHOD BLANK: T077728-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Silver	mg/kg dry	<0.10	0.10	
Arsenic	mg/kg dry	<0.12	0.12	
Selenium	mg/kg dry	<0.20	0.20	

LABORATORY CONTROL SAMPLE: T077728-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
Silver	mg/kg dry	5.00	5.13	103	80-120	
Arsenic	mg/kg dry	5.00	5.08	102	80-120	
Selenium	mg/kg dry	5.00	5.00	100	80-120	

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077876
QC Batch Method: EPA 3051 Microwave Assisted Digestions for Solids
Analysis Description: Arsenic, Total
Analysis Method: EPA 6020

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METHOD BLANK: T077876-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Silver	mg/kg dry	<0.10	0.10	
Arsenic	mg/kg dry	<0.12	0.12	
Selenium	mg/kg dry	<0.20	0.20	

LABORATORY CONTROL SAMPLE: T077876-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
Silver	mg/kg dry	5.00	4.38	88	80-120	
Arsenic	mg/kg dry	5.00	4.47	89	80-120	
Selenium	mg/kg dry	5.00	4.39	88	80-120	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE: T077876-MSD1 Original: **T18F057-01**

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Notes
Silver	mg/kg dry	0.0186	4.79	4.20	4.65	86	97	75-125	11	20	
Arsenic	mg/kg dry	1.47	4.79	5.38	5.63	81	87	75-125	7	20	
Selenium	mg/kg dry	0.199	4.79	4.23	4.64	83	93	75-125	10	20	

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T076763
QC Batch Method: EPA 200.2
Analysis Description: Metals Digestion
Analysis Method: EPA 200.2

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077764
QC Batch Method: EPA 3540C Soxhlet Extraction
Analysis Description: PCBs
Analysis Method: EPA 8082A

METHOD BLANK: T077764-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Aroclor-1016	ug/kg wet	<330	330	
Aroclor-1221	ug/kg wet	<330	330	
Aroclor-1232	ug/kg wet	<330	330	
Aroclor-1242	ug/kg wet	<330	330	
Aroclor-1248	ug/kg wet	<330	330	
Aroclor-1254	ug/kg wet	<330	330	
Aroclor-1260	ug/kg wet	<330	330	
Tetrachloro-m-xylene (S)	%	47	40-113	

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METHOD BLANK: T077764-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Decachlorobiphenyl (S)	%	64	32-111	

LABORATORY CONTROL SAMPLE: T077764-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
Aroclor-1016	ug/kg wet	533	<330	54	51-110	
Aroclor-1260	ug/kg wet	533	359	67	49-110	
Tetrachloro-m-xylene (S)	%	33.3	20.0	60	40-113	
Decachlorobiphenyl (S)	%	33.3	28.1	84	32-111	

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077815
QC Batch Method: EPA 3540C Soxhlet Extraction
Analysis Description: PCBs
Analysis Method: EPA 8082A

METHOD BLANK: T077815-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Aroclor-1016	ug/kg wet	<330	330	
Aroclor-1221	ug/kg wet	<330	330	
Aroclor-1232	ug/kg wet	<330	330	
Aroclor-1242	ug/kg wet	<330	330	
Aroclor-1248	ug/kg wet	<330	330	
Aroclor-1254	ug/kg wet	<330	330	
Aroclor-1260	ug/kg wet	<330	330	
Tetrachloro-m-xylene (S)	%	49	40-113	
Decachlorobiphenyl (S)	%	71	32-111	

LABORATORY CONTROL SAMPLE: T077815-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
Aroclor-1016	ug/kg wet	532	346	65	51-110	
Aroclor-1260	ug/kg wet	532	398	75	49-110	
Tetrachloro-m-xylene (S)	%	33.2	25.4	77	40-113	
Decachlorobiphenyl (S)	%	33.2	29.1	88	32-111	

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077765
QC Batch Method: EPA 3550B Ultrasonic Extraction
Analysis Description: PNAs
Analysis Method: EPA 8270C

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METHOD BLANK: T077765-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Naphthalene	ug/kg wet	<330	330	
2-Methylnaphthalene	ug/kg wet	<330	330	
Acenaphthylene	ug/kg wet	<330	330	
Acenaphthene	ug/kg wet	<330	330	
Fluorene	ug/kg wet	<330	330	
Phenanthrene	ug/kg wet	<330	330	
Anthracene	ug/kg wet	<330	330	
Fluoranthene	ug/kg wet	<330	330	
Pyrene	ug/kg wet	<330	330	
Benzo (a) anthracene	ug/kg wet	<330	330	
Chrysene	ug/kg wet	<330	330	
Benzo (b) fluoranthene	ug/kg wet	<330	330	
Benzo (k) fluoranthene	ug/kg wet	<330	330	
Benzo (a) pyrene	ug/kg wet	<330	330	
Indeno (1,2,3-cd) pyrene	ug/kg wet	<330	330	
Dibenz (a,h) anthracene	ug/kg wet	<330	330	
Benzo (g,h,i) perylene	ug/kg wet	<330	330	
Nitrobenzene-d5 (S)	%	70	36-98	
2-Fluorobiphenyl (S)	%	62	44-105	
Terphenyl-d14 (S)	%	70	46-109	

LABORATORY CONTROL SAMPLE: T077765-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
Acenaphthene	ug/kg wet	1730	1130	65	52-105	
Pyrene	ug/kg wet	1680	1090	65	47-114	
Nitrobenzene-d5 (S)	%	3320	2380	72	36-98	
2-Fluorobiphenyl (S)	%	3320	2160	65	44-105	
Terphenyl-d14 (S)	%	3320	2500	75	46-109	

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077766
Analysis Description: PNAs
QC Batch Method: EPA 3510C Separatory Funnel Liquid-Liquid Extr.
Analysis Method: EPA 8270C

METHOD BLANK: T077766-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Naphthalene	ug/L	<5.0	5.0	
2-Methylnaphthalene	ug/L	<5.0	5.0	
Acenaphthylene	ug/L	<5.0	5.0	
Acenaphthene	ug/L	<5.0	5.0	

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METHOD BLANK: T077766-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Fluorene	ug/L	<5.0	5.0	
Phenanthrene	ug/L	<2.0	2.0	
Anthracene	ug/L	<5.0	5.0	
Fluoranthene	ug/L	<1.0	1.0	
Pyrene	ug/L	<5.0	5.0	
Benzo (a) anthracene	ug/L	<1.0	1.0	
Chrysene	ug/L	<1.0	1.0	
Benzo (b) fluoranthene	ug/L	<1.0	1.0	
Benzo (k) fluoranthene	ug/L	<1.0	1.0	
Benzo (a) pyrene	ug/L	<1.0	1.0	
Indeno (1,2,3-cd) pyrene	ug/L	<2.0	2.0	
Dibenz (a,h) anthracene	ug/L	<2.0	2.0	
Benzo (g,h,i) perylene	ug/L	<1.0	1.0	
Nitrobenzene-d5 (S)	%	77	36-103	
2-Fluorobiphenyl (S)	%	69	36-119	
Terphenyl-d14 (S)	%	75	37-109	

LABORATORY CONTROL SAMPLE: T077766-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
Acenaphthene	ug/L	52.0	29.5	57	42-105	
Pyrene	ug/L	50.5	32.8	65	47-116	
Nitrobenzene-d5 (S)	%	100	63.8	64	36-103	
2-Fluorobiphenyl (S)	%	100	57.6	58	36-119	
Terphenyl-d14 (S)	%	100	66.4	66	37-109	

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077846
QC Batch Method: EPA 3550B Ultrasonic Extraction
Analysis Description: PNAs
Analysis Method: EPA 8270C

METHOD BLANK: T077846-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Naphthalene	ug/kg wet	<330	330	
2-Methylnaphthalene	ug/kg wet	<330	330	
Acenaphthylene	ug/kg wet	<330	330	
Acenaphthene	ug/kg wet	<330	330	
Fluorene	ug/kg wet	<330	330	
Phenanthrene	ug/kg wet	<330	330	
Anthracene	ug/kg wet	<330	330	
Fluoranthene	ug/kg wet	<330	330	

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METHOD BLANK: T077846-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Pyrene	ug/kg wet	<330	330	
Benzo (a) anthracene	ug/kg wet	<330	330	
Chrysene	ug/kg wet	<330	330	
Benzo (b) fluoranthene	ug/kg wet	<330	330	
Benzo (k) fluoranthene	ug/kg wet	<330	330	
Benzo (a) pyrene	ug/kg wet	<330	330	
Indeno (1,2,3-cd) pyrene	ug/kg wet	<330	330	
Dibenz (a,h) anthracene	ug/kg wet	<330	330	
Benzo (g,h,i) perylene	ug/kg wet	<330	330	
Nitrobenzene-d5 (S)	%	76	36-98	
2-Fluorobiphenyl (S)	%	66	44-105	
Terphenyl-d14 (S)	%	76	46-109	

LABORATORY CONTROL SAMPLE: T077846-BS2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
Acenaphthene	ug/kg wet	1730	1120	65	52-105	
Pyrene	ug/kg wet	1680	1110	66	47-114	
Nitrobenzene-d5 (S)	%	3330	2290	69	36-98	
2-Fluorobiphenyl (S)	%	3330	2080	62	44-105	
Terphenyl-d14 (S)	%	3330	2370	71	46-109	

MATRIX SPIKE / MATRIX SPIKE DUPLICATE: T077846-MSD1 Original: **T18F057-09**

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Notes
Acenaphthene	ug/kg dry	0	1850	1320	1180	72	64	46-111	11	31	
Pyrene	ug/kg dry	0	1790	1390	1290	78	72	40-124	8	33	
Nitrobenzene-d5 (S)	%		3550	2700	2340	76	66	36-98			
2-Fluorobiphenyl (S)	%		3550	2500	2180	70	61	44-105			
Terphenyl-d14 (S)	%		3550	2690	2540	75	72	46-109			

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077774
QC Batch Method: EPA 8260C
Analysis Description: Volatiles, Full MDEQ+ List
Analysis Method: EPA 8260C

METHOD BLANK: T077774-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Dichlorodifluoromethane	ug/kg wet	<250	250	

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METHOD BLANK: T077774-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Chloromethane	ug/kg wet	<250	250	
Vinyl chloride	ug/kg wet	<40	40	
Bromomethane	ug/kg wet	<200	200	
Chloroethane	ug/kg wet	<250	250	
Trichlorofluoromethane	ug/kg wet	<100	100	
Diethyl ether	ug/kg wet	<200	200	
Tert-butyl alcohol	ug/kg wet	<2500	2500	
1,1-Dichloroethene	ug/kg wet	<50	50	
Acetone	ug/kg wet	<1000	1000	
Iodomethane	ug/kg wet	<100	100	
Carbon disulfide	ug/kg wet	<250	250	
Methyl-tert-butyl ether	ug/kg wet	<250	250	
Methylene chloride	ug/kg wet	<250	250	
Acrylonitrile	ug/kg wet	<100	100	
trans-1,2-Dichloroethene	ug/kg wet	<50	50	
1,1-Dichloroethane	ug/kg wet	<50	50	
Diisopropyl Ether	ug/kg wet	<250	250	
2-Butanone	ug/kg wet	<750	750	
cis-1,2-Dichloroethene	ug/kg wet	<50	50	
t-Butyl Ethyl Ether	ug/kg wet	<250	250	
Bromochloromethane	ug/kg wet	<100	100	
Tetrahydrofuran	ug/kg wet	<1000	1000	
Chloroform	ug/kg wet	<50	50	
1,1,1-Trichloroethane	ug/kg wet	<50	50	
Carbon tetrachloride	ug/kg wet	<50	50	
Benzene	ug/kg wet	<50	50	
t-Amyl Methyl Ether	ug/kg wet	<250	250	
1,2-Dichloroethane	ug/kg wet	<50	50	
Cyclohexane	ug/kg wet	<250	250	
Trichloroethene	ug/kg wet	<50	50	
1,2-Dichloropropane	ug/kg wet	<50	50	
Dibromomethane	ug/kg wet	<250	250	
Bromodichloromethane	ug/kg wet	<100	100	
cis-1,3-Dichloropropene	ug/kg wet	<50	50	
4-Methyl-2-pentanone	ug/kg wet	<2500	2500	
Toluene	ug/kg wet	<100	100	
trans-1,3-Dichloropropene	ug/kg wet	<50	50	
1,1,2-Trichloroethane	ug/kg wet	<50	50	
Tetrachloroethene	ug/kg wet	<50	50	
2-Hexanone	ug/kg wet	<2500	2500	
Dibromochloromethane	ug/kg wet	<100	100	
1,2-Dibromoethane (EDB)	ug/kg wet	<50	50	
Chlorobenzene	ug/kg wet	<50	50	
1,1,1,2-Tetrachloroethane	ug/kg wet	<100	100	

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METHOD BLANK: T077774-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Ethylbenzene	ug/kg wet	<50	50	
m,p-Xylene	ug/kg wet	<100	100	
o-Xylene	ug/kg wet	<50	50	
Xylenes, total	ug/kg wet	<150	150	
Styrene	ug/kg wet	<50	50	
Bromoform	ug/kg wet	<100	100	
Isopropylbenzene	ug/kg wet	<250	250	
1,1,2,2-Tetrachloroethane	ug/kg wet	<50	50	
1,2,3-Trichloropropane	ug/kg wet	<100	100	
trans-1,4-Dichloro-2-butene	ug/kg wet	<50	50	
Bromobenzene	ug/kg wet	<100	100	
n-Propylbenzene	ug/kg wet	<100	100	
1,3,5-Trimethylbenzene	ug/kg wet	<100	100	
t-Butyl Benzene	ug/kg wet	<50	50	
1,2,4-Trimethylbenzene	ug/kg wet	<100	100	
sec-Butylbenzene	ug/kg wet	<50	50	
p-Isopropyltoluene	ug/kg wet	<100	100	
1,3-Dichlorobenzene	ug/kg wet	<100	100	
1,4-Dichlorobenzene	ug/kg wet	<100	100	
n-Butylbenzene	ug/kg wet	<50	50	
1,2,3-Trimethylbenzene	ug/kg wet	<50	50	
1,2-Dichlorobenzene	ug/kg wet	<100	100	
1,2-Dibromo-3-chloropropane	ug/kg wet	<100	100	
Hexachloroethane	ug/kg wet	<100	100	
1,2,4-Trichlorobenzene	ug/kg wet	<330	330	
Naphthalene	ug/kg wet	<330	330	
1,2,3-Trichlorobenzene	ug/kg wet	<250	250	
2-Methylnaphthalene	ug/kg wet	<330	330	
1,2-Dichloroethane-d4 (S)	%	100	68-133	
Toluene-d8 (S)	%	107	75-120	
4-Bromofluorobenzene (S)	%	107	69-119	
1,2-Dichlorobenzene-d4 (S)	%	103	72-127	

LABORATORY CONTROL SAMPLE: T077774-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
1,1-Dichloroethene	ug/kg wet	1000	1190	119	64-156	
Benzene	ug/kg wet	1000	1030	103	80-120	
Trichloroethene	ug/kg wet	1000	1050	105	69-133	
Toluene	ug/kg wet	1000	1010	101	80-120	
Chlorobenzene	ug/kg wet	1000	980	98	80-120	
1,2-Dichloroethane-d4 (S)	%	30.0	30.4	101	68-133	
Toluene-d8 (S)	%	30.0	31.6	105	75-120	

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LABORATORY CONTROL SAMPLE: T077774-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
4-Bromofluorobenzene (S)	%	30.0	31.8	106	69-119	
1,2-Dichlorobenzene-d4 (S)	%	30.0	34.5	115	72-127	

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077784
QC Batch Method: EPA 8260C
Analysis Description: Volatiles, Full MDEQ+ List
Analysis Method: EPA 8260C

METHOD BLANK: T077784-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Dichlorodifluoromethane	ug/L	<5.0	5.0	
Chloromethane	ug/L	<5.0	5.0	
Vinyl chloride	ug/L	<1.0	1.0	
Bromomethane	ug/L	<5.0	5.0	
Chloroethane	ug/L	<5.0	5.0	
Trichlorofluoromethane	ug/L	<1.0	1.0	
Diethyl ether	ug/L	<10	10	
Tert-butyl alcohol	ug/L	<50	50	
1,1-Dichloroethene	ug/L	<1.0	1.0	
Acetone	ug/L	<50	50	
Iodomethane	ug/L	<1.0	1.0	
Carbon disulfide	ug/L	<5.0	5.0	
Methyl-tert-butyl ether	ug/L	<5.0	5.0	
Methylene chloride	ug/L	<5.0	5.0	
Acrylonitrile	ug/L	<2.0	2.0	
trans-1,2-Dichloroethene	ug/L	<1.0	1.0	
1,1-Dichloroethane	ug/L	<1.0	1.0	
Diisopropyl Ether	ug/L	<5.0	5.0	
2-Butanone	ug/L	<25	25	
cis-1,2-Dichloroethene	ug/L	<1.0	1.0	
t-Butyl Ethyl Ether	ug/L	<5.0	5.0	
Bromochloromethane	ug/L	<1.0	1.0	
Tetrahydrofuran	ug/L	<90	90	
Chloroform	ug/L	<1.0	1.0	
1,1,1-Trichloroethane	ug/L	<1.0	1.0	
Carbon tetrachloride	ug/L	<1.0	1.0	
Benzene	ug/L	<1.0	1.0	
t-Amyl Methyl Ether	ug/L	<5.0	5.0	
1,2-Dichloroethane	ug/L	<1.0	1.0	
Cyclohexane	ug/L	<5.0	5.0	
Trichloroethene	ug/L	<1.0	1.0	
1,2-Dichloropropane	ug/L	<1.0	1.0	

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METHOD BLANK: T077784-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Dibromomethane	ug/L	<5.0	5.0	
Bromodichloromethane	ug/L	<1.0	1.0	
cis-1,3-Dichloropropene	ug/L	<1.0	1.0	
4-Methyl-2-pentanone	ug/L	<50	50	
Toluene	ug/L	<1.0	1.0	
trans-1,3-Dichloropropene	ug/L	<1.0	1.0	
1,1,2-Trichloroethane	ug/L	<1.0	1.0	
Tetrachloroethene	ug/L	<1.0	1.0	
2-Hexanone	ug/L	<50	50	
Dibromochloromethane	ug/L	<5.0	5.0	
1,2-Dibromoethane (EDB)	ug/L	<1.0	1.0	
Chlorobenzene	ug/L	<1.0	1.0	
1,1,1,2-Tetrachloroethane	ug/L	<1.0	1.0	
Ethylbenzene	ug/L	<1.0	1.0	
m,p-Xylene	ug/L	<2.0	2.0	
o-Xylene	ug/L	<1.0	1.0	
Xylenes, total	ug/L	<3.0	3.0	
Styrene	ug/L	<1.0	1.0	
Bromoform	ug/L	<1.0	1.0	
Isopropylbenzene	ug/L	<5.0	5.0	
1,1,2,2-Tetrachloroethane	ug/L	<1.0	1.0	
1,2,3-Trichloropropane	ug/L	<1.0	1.0	
trans-1,4-Dichloro-2-butene	ug/L	<1.0	1.0	
Bromobenzene	ug/L	<1.0	1.0	
n-Propylbenzene	ug/L	<1.0	1.0	
1,3,5-Trimethylbenzene	ug/L	<1.0	1.0	
t-Butyl Benzene	ug/L	<1.0	1.0	
1,2,4-Trimethylbenzene	ug/L	<1.0	1.0	
sec-Butylbenzene	ug/L	<1.0	1.0	
p-Isopropyltoluene	ug/L	<5.0	5.0	
1,3-Dichlorobenzene	ug/L	<1.0	1.0	
1,4-Dichlorobenzene	ug/L	<1.0	1.0	
n-Butylbenzene	ug/L	<1.0	1.0	
1,2,3-Trimethylbenzene	ug/L	<1.0	1.0	
1,2-Dichlorobenzene	ug/L	<1.0	1.0	
1,2-Dibromo-3-chloropropane	ug/L	<1.0	1.0	
Hexachloroethane	ug/L	<5.0	5.0	
1,2,4-Trichlorobenzene	ug/L	<5.0	5.0	
Naphthalene	ug/L	<5.0	5.0	
1,2,3-Trichlorobenzene	ug/L	<5.0	5.0	
2-Methylnaphthalene	ug/L	<5.0	5.0	
1,2-Dichloroethane-d4 (S)	%	100	68-133	
Toluene-d8 (S)	%	107	75-120	
4-Bromofluorobenzene (S)	%	107	69-119	

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METHOD BLANK: T077784-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
1,2-Dichlorobenzene-d4 (S)	%	103	72-127	

LABORATORY CONTROL SAMPLE: T077784-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
1,1-Dichloroethene	ug/L	20.0	23.8	119	64-156	
Benzene	ug/L	20.0	20.6	103	80-120	
Trichloroethene	ug/L	20.0	21.0	105	69-133	
Toluene	ug/L	20.0	20.2	101	80-120	
Chlorobenzene	ug/L	20.0	19.6	98	80-120	
1,2-Dichloroethane-d4 (S)	%	30.0	30.4	101	68-133	
Toluene-d8 (S)	%	30.0	31.6	105	75-120	
4-Bromofluorobenzene (S)	%	30.0	31.8	106	69-119	
1,2-Dichlorobenzene-d4 (S)	%	30.0	34.5	115	72-127	

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077918
QC Batch Method: EPA 8260C
Analysis Description: Volatiles, Full MDEQ+ List
Analysis Method: EPA 8260C

METHOD BLANK: T077918-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
Dichlorodifluoromethane	ug/kg wet	<250	250	
Chloromethane	ug/kg wet	<250	250	
Vinyl chloride	ug/kg wet	<40	40	
Bromomethane	ug/kg wet	<200	200	
Chloroethane	ug/kg wet	<250	250	
Trichlorofluoromethane	ug/kg wet	<100	100	
Diethyl ether	ug/kg wet	<200	200	
Tert-butyl alcohol	ug/kg wet	<2500	2500	
1,1-Dichloroethene	ug/kg wet	<50	50	
Acetone	ug/kg wet	<1000	1000	
Iodomethane	ug/kg wet	<100	100	
Carbon disulfide	ug/kg wet	<250	250	
Methyl-tert-butyl ether	ug/kg wet	<250	250	
Methylene chloride	ug/kg wet	<250	250	
Acrylonitrile	ug/kg wet	<100	100	
trans-1,2-Dichloroethene	ug/kg wet	<50	50	
1,1-Dichloroethane	ug/kg wet	<50	50	
Diisopropyl Ether	ug/kg wet	<250	250	
2-Butanone	ug/kg wet	<750	750	

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METHOD BLANK: T077918-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
cis-1,2-Dichloroethene	ug/kg wet	<50	50	
t-Butyl Ethyl Ether	ug/kg wet	<250	250	
Bromochloromethane	ug/kg wet	<100	100	
Tetrahydrofuran	ug/kg wet	<1000	1000	
Chloroform	ug/kg wet	<50	50	
1,1,1-Trichloroethane	ug/kg wet	<50	50	
Carbon tetrachloride	ug/kg wet	<50	50	
Benzene	ug/kg wet	<50	50	
t-Amyl Methyl Ether	ug/kg wet	<250	250	
1,2-Dichloroethane	ug/kg wet	<50	50	
Cyclohexane	ug/kg wet	<250	250	
Trichloroethene	ug/kg wet	<50	50	
1,2-Dichloropropane	ug/kg wet	<50	50	
Dibromomethane	ug/kg wet	<250	250	
Bromodichloromethane	ug/kg wet	<100	100	
cis-1,3-Dichloropropene	ug/kg wet	<50	50	
4-Methyl-2-pentanone	ug/kg wet	<2500	2500	
Toluene	ug/kg wet	<100	100	
trans-1,3-Dichloropropene	ug/kg wet	<50	50	
1,1,2-Trichloroethane	ug/kg wet	<50	50	
Tetrachloroethene	ug/kg wet	<50	50	
2-Hexanone	ug/kg wet	<2500	2500	
Dibromochloromethane	ug/kg wet	<100	100	
1,2-Dibromoethane (EDB)	ug/kg wet	<50	50	
Chlorobenzene	ug/kg wet	<50	50	
1,1,1,2-Tetrachloroethane	ug/kg wet	<100	100	
Ethylbenzene	ug/kg wet	<50	50	
m,p-Xylene	ug/kg wet	<100	100	
o-Xylene	ug/kg wet	<50	50	
Xylenes, total	ug/kg wet	<150	150	
Styrene	ug/kg wet	<50	50	
Bromoform	ug/kg wet	<100	100	
Isopropylbenzene	ug/kg wet	<250	250	
1,1,2,2-Tetrachloroethane	ug/kg wet	<50	50	
1,2,3-Trichloropropane	ug/kg wet	<100	100	
trans-1,4-Dichloro-2-butene	ug/kg wet	<50	50	
Bromobenzene	ug/kg wet	<100	100	
n-Propylbenzene	ug/kg wet	<100	100	
1,3,5-Trimethylbenzene	ug/kg wet	<100	100	
t-Butyl Benzene	ug/kg wet	<50	50	
1,2,4-Trimethylbenzene	ug/kg wet	<100	100	
sec-Butylbenzene	ug/kg wet	<50	50	
p-Isopropyltoluene	ug/kg wet	<100	100	
1,3-Dichlorobenzene	ug/kg wet	<100	100	

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METHOD BLANK: T077918-BLK1

Parameter	Units	Blank Result	Reporting Limit	Notes
1,4-Dichlorobenzene	ug/kg wet	<100	100	
n-Butylbenzene	ug/kg wet	<50	50	
1,2,3-Trimethylbenzene	ug/kg wet	<50	50	
1,2-Dichlorobenzene	ug/kg wet	<100	100	
1,2-Dibromo-3-chloropropane	ug/kg wet	<100	100	
Hexachloroethane	ug/kg wet	<100	100	
1,2,4-Trichlorobenzene	ug/kg wet	<330	330	
Naphthalene	ug/kg wet	<330	330	
1,2,3-Trichlorobenzene	ug/kg wet	<250	250	
2-Methylnaphthalene	ug/kg wet	<330	330	
1,2-Dichloroethane-d4 (S)	%	104	68-133	
Toluene-d8 (S)	%	102	75-120	
4-Bromofluorobenzene (S)	%	108	69-119	
1,2-Dichlorobenzene-d4 (S)	%	103	72-127	

LABORATORY CONTROL SAMPLE: T077918-BS1

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limit	Notes
1,1-Dichloroethene	ug/kg wet	1000	1050	105	64-156	
Benzene	ug/kg wet	1000	930	93	80-120	
Trichloroethene	ug/kg wet	1000	1020	102	69-133	
Toluene	ug/kg wet	1000	908	91	80-120	
Chlorobenzene	ug/kg wet	1000	954	95	80-120	
1,2-Dichloroethane-d4 (S)	%	30.0	30.7	102	68-133	
Toluene-d8 (S)	%	30.0	30.6	102	75-120	
4-Bromofluorobenzene (S)	%	30.0	31.7	106	69-119	
1,2-Dichlorobenzene-d4 (S)	%	30.0	32.8	109	72-127	

Trace Project ID: T18F057
Client Project ID: MLNP

QC Batch: T077734
QC Batch Method: % Solids
Analysis Description: Solids, Dry Weight
Analysis Method: ASTM D2974-87

SAMPLE DUPLICATE: T077734-DUP1 Original: **T18F057-01**

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Notes
% Solids	% by Wt.	94.0	93.3	0.7	20	

SAMPLE DUPLICATE: T077734-DUP2 Original: **T18F057-06**

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Notes

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SAMPLE DUPLICATE: T077734-DUP2 Original: **T18F057-06**

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Notes
% Solids	% by Wt.	73.1	76.7	5	20	

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CHAIN-OF-CUSTODY RECORD

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Page 1 of 1

Trace ID No. T18F057

Report Results To:

Company Name: GEI Consultants
Report To: Brian Majka
Mailing Address: 5225 Edgewater
City, State, Zip Code: Allendale, MI 49401
Office Phone: 616-784-2010 Cell Phone:
Email Address: bmajka@geiconsultants.com

Bill To:

PO #:
Contact Name:
Billing Address (if different):
City, State, Zip Code:
Phone Number:
Billing Email Address:

Turnaround Requirements:

☒ Standard ☐ 48 Hour* See Remarks
☐ 4 Day* ☐ 24 Hour*
☐ 3 Day*
*Requires Prior Approval

Matrix Key:

S = Soil / Solid
W = Water
SL = Sludge
Ol = Oil
WI = Wipes
LW = Liquid Waste
A = Air
D = Drinking Water

Trace Use:

Logged By: TS
Checked By: MWB
Soil Volatiles Preserved (circle if applicable): MeOH Low Level Lab
Sampling Time:

Project Name: MLNP
Sampled By: ARB/BM

Trace No.	Date Collected	Time Collected	Client Sample ID	Metals Field Filtered (Y / N)	Matrix	Number of Containers	Preservation: Cool	HCl	HNO_3	H_2SO_4	NaOH	Other	Analysis Requested: 8260	8270 (PAH)	MI 10 metals	PCBs	Possible Health Hazards?	Remarks
1	6/4/18	1153	MLNP-SS-1		S	2							X	X	X			
2	6/4/18	1203	MLNP-SS-2		S	2							X	X	X			
3	6/4/18	1218	MLNP-SS-3		S	2							X	X	X			
4	6/4/18	1220	MLNP-SS-4		S	2							X	X	X			
5	6/4/18	1220	MLNP-SS-4A		S	2							X	X	X			48 hr TAT
6	6/4/18	1230	MLNP-SS-5		S	2							X	X	X			
7	6/4/18	1235	MLNP-SS-6		S	2							X	X	X			48 hr TAT
8	6/4/18	1250	MLNP-SS-7		S	2							X	X	X			
9	6/4/18	1310	MLNP-SS-8		S	2							X	X	X			
10	6/4/18	13	MLNP-GW-8		W	3							X	X	X			

Please Sign

	Released By	Received By	Date	Time
1)				
2)			6-4-18	14:44
3)				
4)				

In executing this Chain of Custody, the client acknowledges the terms as set forth at www.trace-labs.com/terms-of-agreement.

☐ Check this box if you would not like your samples analyzed if received outside of the conditions outlined in the Trace Sample Acceptance Policy at www.trace-labs.com/downloads.

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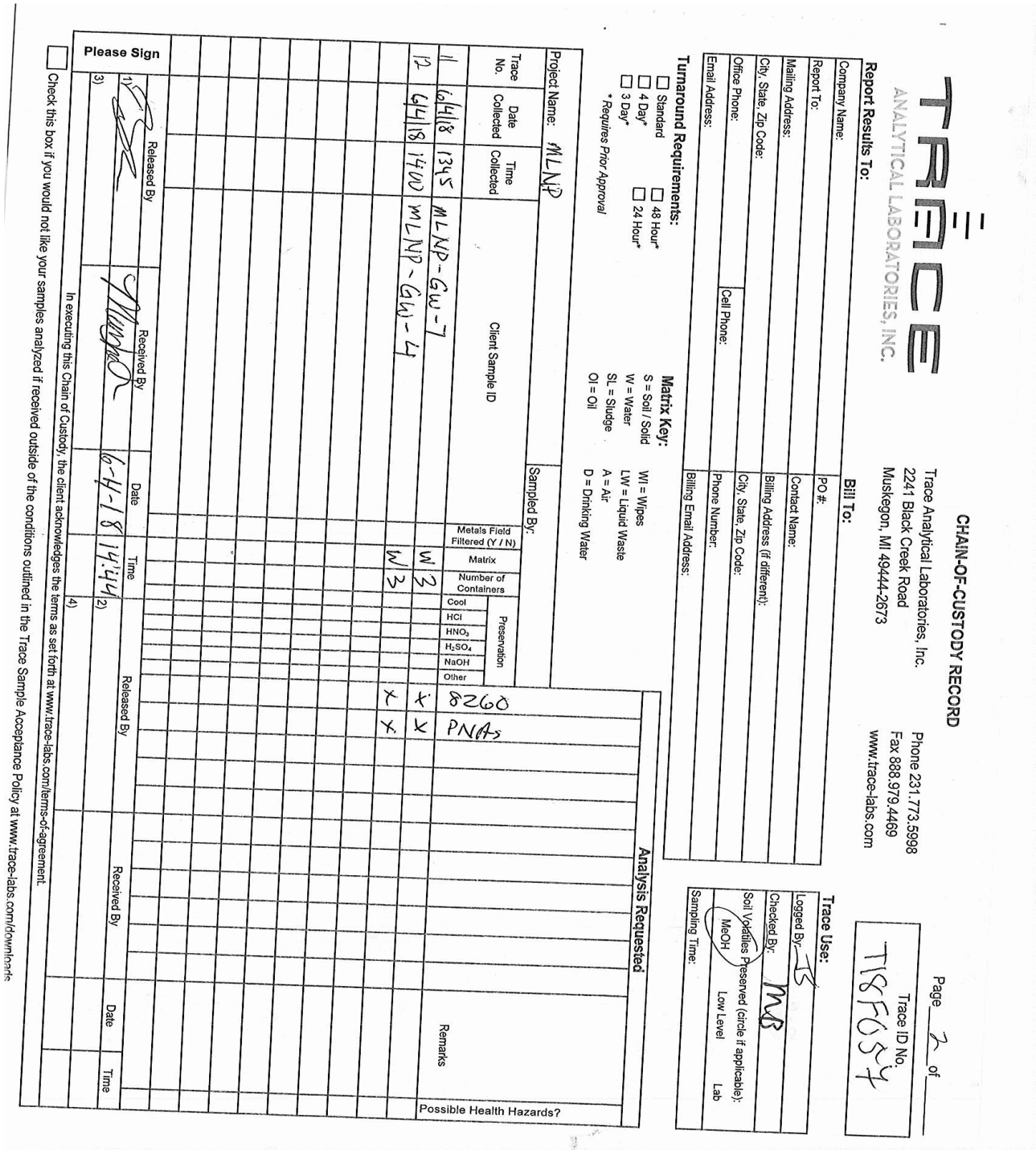

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Page 2 of

Trace ID No. T18F057

Report Results To:

Company Name:
Report To:
Mailing Address:
City, State, Zip Code:
Office Phone: Cell Phone:
Email Address:

Bill To:

PO #:
Contact Name:
Billing Address (if different):
City, State, Zip Code:
Phone Number:
Billing Email Address:

Turnaround Requirements:

☐ Standard ☐ 48 Hour*
☐ 4 Day* ☐ 24 Hour*
☐ 3 Day*
* Requires Prior Approval

Matrix Key:

S = Soil / Solid
W = Water
SL = Sludge
Ol = Oil
WI = Wipes
LW = Liquid Waste
A = Air
D = Drinking Water

Trace Use:

Logged By: TS
Checked By: MW
Soil Volatiles Preserved (circle if applicable): MeOH Low Level Lab
Sampling Time:

Project Name: MLNP
Sampled By:

Trace No.	Date Collected	Time Collected	Client Sample ID	Metals Field Filtered (Y / N)	Matrix	Number of Containers	Preservation: Cool	HCl	HNO_3	H_2SO_4	NaOH	Other	Analysis Requested	Possible Health Hazards?	Remarks
11	6/4/18	1345	MLNP-GW-7		W	3						X	8260		
12	6/4/18	1410	MLNP-GW-4		W	3						X	PNAs		

Please Sign

	Released By	Received By	Date	Time	Released By	Received By	Date	Time
1)								
2)			6-4-18	1424				
3)								
4)								

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SAMPLE LOG IN CHECKLIST

Trace ID #: T18F057 Date: 6-4-18 Package Description: Cooler Temperature: 18.4

Client Name: CFI Time: 14:44 Logged in by: JS

Cooler Receipt

Cooler/samples delivered by: Trace courier [ ]
Hand delivered [X] Name of delivery person: _____
Commercial courier [ ] UPS [ ] FED EX [ ] US Mail [ ]

Tracking Number: [X] Not Applicable
Tracking #: _____

COC Seals present and intact on cooler? [X] Not Applicable [ ] No [ ] Yes

Custody seals signed by Client? [ ] No [ ] Yes Client custody seal # (if applicable): _____

Coolant and Temperature

Type of Coolant Used

Slurry w/ crushed, cubed, or chip ice? [ ]
Multiple bags of ice around samples? [ ]
Ice Packs/ Blue Ice : [ ]
No Coolant Present: [X]

Ice still present upon receipt (circle one):
Yes No N/A

Cooler Temperature

Correction Factors: •Digital Stick Thermometer CF = -1.0°C
•IR Thermometer CF = -0.3°C

Representative Sample Temperature: 18.4 °C (check one below)

[ ] Temp Blank (Stick Thermometer)
[X] Client Sample (IR Thermometer)

Melt Water: N/A °C (Use Digital Stick Thermometer)

General

	Yes	No	NA	Comments
All bottles arrived unbroken with labels in good condition?	X			
Each sample point is in a sealed plastic bag?	X			
Labels filled out completely?	X			
All bottle labels agree with Chain of Custody (COC)?	X			
Sufficient sample to run tests requested?	X			
pH checked and samples at correct pH?			X	See Below*
Correct preservative added to samples?	X			
Air bubbles absent from VOAs?	X			
COC filled out properly and signed by client?	X			
COC signed in by TRACE sample custodian?	X			
Was project manager called and samples discussed?			X	

Notes:

*EMD pH Test Strips Used:

[ ] pH 0-2.5 Lot: HC606169
[ ] pH 11.0-13.0 Lot: HC600691
[ ] Other: _____

Form 70-A.24
Effective 4/17/18

TRACE Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS