

# Exhibit JJ. Ruston Industrial Park Phase II Environmental Site Assessment



John Bel Edwards  
Governor



Chuck Carr Brown, Ph.D.  
Secretary

# Louisiana Department of Environmental Quality

## Office of Environmental Compliance

FEB 22 2016

Darrell Caraway, Director of Public Works  
City of Ruston  
P. O. Box 2069  
Ruston, LA 71273-2069

### Ruston Industrial Park LDEQ Letter of No Further Interest

RE: No Further Interest  
Former Ruston Landfill; AI# 195908  
Beacon Light Road at McDonald Ave  
Ruston, Lincoln Parish, La

Dear Mr. Caraway:

The Louisiana Department of Environmental Quality, Office of Environmental Compliance has received your *Limited Phase II Environmental Site Assessment Report* submitted for the above-referenced location on March 9, 2015.

Based on the limited information submitted, the Department does not intend to respond further regarding this matter. Should you discover any discharges in future monitoring efforts, reporting must be in accordance with the Department's regulations. We will maintain a copy of the report in our files for future reference. Thank you for keeping us informed of your activities.

This letter is not intended and should not be construed to be a concurrence that the information provided is adequate to ascertain the condition of the property in question. If you have any questions concerning this matter, please contact Melissa Miller at (318) 362-3052.

Sincerely,

Gary Fulton Jr., Administrator  
Underground Storage Tanks and Remediation Division

mmmm

c: Imaging Operations – Solid Waste  
LDEQ – USTRD – GG1  
Ms. Terri Gibson – USTRD  
Mr. Chris Sampognaro – PPM Consultants, Inc.

March 9, 2015

Louisiana Department of Environmental Quality  
Attn: Office of Environmental Compliance - SPOC  
“Unauthorized Discharge Notification Report”  
Post Office Box 4312  
Baton Rouge, LA 70821-4312

## Ruston Industrial Park Phase II Environmental Site Assessment

**Re: Limited Phase II Environmental Site Assessment Report**  
City of Ruston  
Former Landfill  
Intersection of Beacon Light Road and McDonald Avenue  
Ruston, Louisiana  
Lincoln Parish  
PPM Project No. 113007

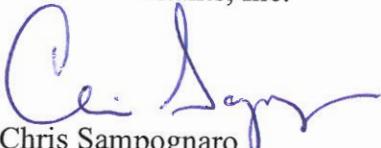
To Whom It May Concern:

PPM Consultants, Inc. (PPM), on behalf of the City of Ruston, conducted a Phase II Environmental Site Assessment (ESA) at the above referenced site. Findings from the Phase II ESA revealed concentrations of arsenic in soil samples collected above the Risk Evaluation/Corrective Action Program (RECAP) Screening Standards; however, in accordance with RECAP, the mean value of arsenic was calculated. The resulting mean concentration, 9.11 ppm, was compared to the RECAP Screening Standard of 12 ppm. The mean concentration was revealed to be below the RECAP Screening Standard.

On February 27, 2015, PPM notified the LDEQ-SPOC of constituent concentrations that exceeded the RECAP screening standards. Enclosed please find three hard copies of the Phase II ESA Report. Based on the findings from the Phase II ESA, PPM is recommending no further action (NFA) at this site.

If you have any questions or need additional information, please do not hesitate to contact Chasity Reed or me at (318) 323-7270.

Sincerely,  
PPM Consultants, Inc.



Chris Sampognaro  
Senior Geologist

Attachment: Attachment A – Limited Phase II ESA Report

**ATTACHMENT A - LIMITED PHASE II ESA REPORT**

**PHASE II  
ENVIRONMENTAL  
SITE ASSESSMENT REPORT**

**CITY OF RUSTON  
FORMER LANDFILL  
BEACON LIGHT ROAD AT MCDONALD AVENUE  
RUSTON, LOUISIANA  
LINCOLN PARISH**

**PPM PROJECT NO. 113007**

**MARCH 2015**

PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

AT

FORMER LANDFILL  
BEACON LIGHT ROAD AT MCDONALD AVENUE  
RUSTON, LOUISIANA  
LINCOLN PARISH

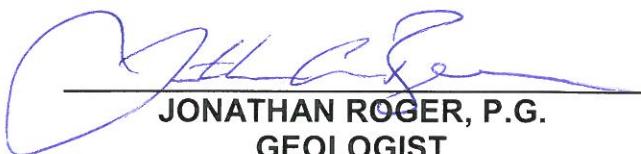
PREPARED FOR:

CITY OF RUSTON  
ATTN: MR. ED PITTMAN  
POST OFFICE BOX 2069  
RUSTON, LOUISIANA 71270

PPM PROJECT NO. 113007

MARCH 2015

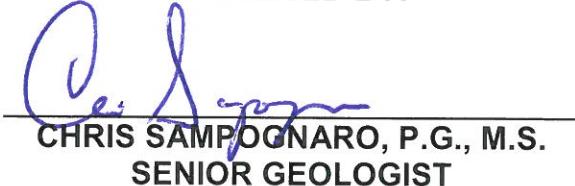
PREPARED BY:



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JONATHAN ROGER, P.G.  
GEOLOGIST

REVIEWED BY:



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CHRIS SAMPOGNARO, P.G., M.S.  
SENIOR GEOLOGIST

PPM CONSULTANTS, INC.  
1600 LAMY LANE  
MONROE, LA 71201  
(318) 323-7270

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- Appendix B     Geologic Boring Logs
- Appendix C     Tables
- Appendix D     Laboratory Analytical Report
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## **EXECUTIVE SUMMARY**

PPM Consultants, Inc. (PPM), in conjunction with Crawford Environmental Service, was retained by the City of Ruston to conduct a Phase II Environmental Site Assessment (ESA) of the former landfill property located at the intersection of Beacon Light Road and McDonald Avenue in Ruston, Louisiana. The purpose of this assessment was to determine if site soil and groundwater have been adversely impacted by the historical uses of the subject property and surrounding properties.

PPM conducted field activities at the site on February 3, 2015, and February 4, 2015. Utilizing direct push technology (Geoprobe<sup>®</sup>), seven probe borings (P-1 through P-7) were advanced to an approximate depth of 20 feet below ground surface (BGS).

During the Phase II ESA, probe borings were advanced in the area of solid waste in the central southern portion of the property, as well as along the western and southern property boundaries. Soil samples collected from the probe borings were analyzed for Volatile Organic Compounds (VOCs) per Method 8260B, Semi-Volatile Organic Compounds (SVOCs) per Method 8270C, and Resource Conservation and Recovery Act (RCRA) Metals per Method 6010B.

Groundwater was encountered in probe boring P-2 at an approximate depth of 18 feet BGS. A temporary one inch PVC well was installed in probe boring P-2 to aid in the collection of groundwater samples; however, groundwater did not recharge sufficiently for sample collection. Groundwater was not encountered in probe borings P-1 and P-3 through P-7; therefore, groundwater was not evaluated during this assessment.

All constituent concentrations in soil were below the laboratory detection limits with the exception of acetone, carbon disulfide, arsenic, barium, chromium, and lead.

Concentrations of arsenic were revealed to be above the RECAP Screening Standards in probe boring P-2 (12.5 ppm) and P-7 (17.4 ppm). Ranges of constituent concentrations detected in soil are summarized in the following table:

## CONSTITUENT CONCENTRATIONS IN SOIL

Constituents	Minimum Constituent Concentrations (ppm)	Maximum Constituent Concentrations (ppm)	RECAP Screening Standards (ppm)	Maximum Concentration Boring Location	Sample Depth (ft BGS)
Acetone	<0.047	0.264	1.5	P-3	19-20
Carbon Disulfide	<0.00095	0.023	11	P-3	19-20
Arsenic	2.5	17.4	12	P-7	19-20
Barium	10.7	55.6	2000	P-7	19-20
Total Chromium	5.8	15.1	100	P-7	19-20
Lead	8.3	14.7	100	P-5	19-20

\* Constituents not identified above were below laboratory detection limits as shown on **Table C-1**.

Based on the findings from the Phase II ESA, PPM concludes the following:

- Laboratory analysis of soil samples revealed all concentrations below the Louisiana Department of Environmental Quality (LDEQ) RECAP Screening Standards, with the exception of arsenic. In accordance with RECAP, the mean value for arsenic was calculated. The resulting mean concentration, 9.11 ppm, was compared to the RECAP Screening Standard of 12 ppm. The mean concentration was revealed to be below the RECAP Screening Standard.
- Groundwater was not encountered in probe borings P-1 and P-3 through P-7 and did not sufficiently recharge in P-2 to collect a groundwater sample; therefore, groundwater was not evaluated in this assessment.
- According to LDEQ regulations, once a property owner gains knowledge of a possible release or knowledge of constituents exceeding RECAP Screening Standards, they are required to notify the LDEQ Surveillance Division – Single Point of Contact (SPOC) within 24 hours and with written notification within seven days of obtaining such knowledge. On February 27, 2015, PPM notified the LDEQ – SPOC of the COCs found in soil collected during the Limited Phase II ESA via online notification as shown in **Appendix E, Online SPOC Notification**. The online and written notification showed that the calculated mean concentration for arsenic is below the RECAP Screening Standard.

Based on the above conclusions, PPM recommends No Further Action at this site.

## **1.0 INTRODUCTION**

PPM Consultants, Inc., (PPM), in conjunction with Crawford Environmental Service, was retained by the City of Ruston to conduct a Phase II Environmental Site Assessment (ESA) of the former landfill property located at the intersection of Beacon Light Road and McDonald Avenue in Ruston, Louisiana. The purpose of this assessment was to determine if site soil and groundwater have been adversely impacted from past use of the property and surrounding properties at levels which warrant environmental concern.

## **2.0 SCOPE OF WORK**

Based upon the recognized environmental conditions identified in the Phase I ESA conducted at the site, PPM developed a scope of work for conducting the Phase II ESA, which consisted of the following:

- Contact “One Call” to locate and mark underground utility lines three days prior to start of fieldwork.
- Preparation of a Health and Safety Plan (HASP).
- Installation of seven probe borings to a maximum of 20.0 feet below ground surface (BGS), utilizing a Geoprobe® truck-mounted rig.
- Collection of soil samples at continuous 2-foot intervals from each of the probe borings for field screening and possible laboratory analysis. Field screening will be conducted using headspace analysis techniques with Photo-Ionization Detector (PID) readings, soil/groundwater interface, and other conditions observed in the field. A sample from each interval will be retained at 4°C for possible laboratory analysis. Sample selection will be based on PID readings, soil/groundwater interface, and other conditions observed in the field.
- One soil sample from each probe will be selected for laboratory analysis of Volatile Organic Compounds (VOCs) per Method 8260B, Semi volatile Organic Compounds (SVOCs) per Meth 8270C, and Resource Conservation and Recovery Act (RCRA) Metals per Method 6010B.
- Installation of a temporary well in each probe boring to aid in the collection of one groundwater sample from the temporary wells for laboratory analysis of VOCs per Method 8260B and SVOCs per Method 8270C.

- Preparation of a Phase II ESA Report for the site presenting the scope of work, site background, investigative methodology, findings, and conclusions from the Phase II ESA field activities.

## 3.0 BACKGROUND

### 3.1 SITE DESCRIPTION

The site is approximately 26 acres in size and is located at the intersection of Beacon Light Road and McDonald Avenue in Ruston, Lincoln Parish, Louisiana. Geographically, the site is located in Section 20, Township 18 North, Range 2 West on the Ruston East, Louisiana Quadrangle at approximately Latitude 32° 31' 41" and Longitude 92° 35' 38". The site location is shown in **Figure 1, Site Location Map**, in **Appendix A, Figures**. Site features are shown on **Figure 2, Site Map**.

## 4.0 SAMPLING METHODOLOGY

### 4.1 METHODOLOGY

PPM conducted field activities at the site on February 3, 2015, and February 4, 2015. Utilizing direct push technology (Geoprobe®), seven probe borings, P-1 through P-7, were advanced to an approximate depth of 20 feet BGS. Groundwater was encountered in probe boring P-2 at an approximate depth of 18 feet BGS. A one-inch temporary well was installed in probe boring P-2 to aid in the collection of a groundwater sample. Groundwater was not encountered in probe borings P-1 and P-3 through P-7. The probe boring locations are shown in **Figure 2, Site Map**.

### 4.2 SOIL SAMPLING

Probe boring soil samples were collected at continuous 2-foot intervals from each boring for field screening purposes and possible laboratory analysis. Probe boring samples were collected at continuous intervals using a 1½-inch inside diameter (ID) Macro-Core Sampler. The Macro-Core Sampler sampling device consisted of a 51¼-inch stainless-steel sample tube, cutting shoe, and drive head. Each sample tube was lined with 48-inch clear disposable plastic tubes.

Each sample tube, upon retrieval, was disassembled on a clean surface. Plastic sample tubes were opened with a clean cutting blade to remove soil from the tube. Samples were

removed from the tube at discrete 2-foot intervals and containerized in clean prepared glass jars for laboratory analysis and mason jars for field screening purposes. New disposal sampling tubes were used at each sampling interval.

Field screening was conducted utilizing headspace analysis techniques with a Rae Systems MiniRae 2000 PGM 7600 Photo-ionization Detector (PID) calibrated with 100 parts per million (ppm) isobutylene span gas. Field screening results were used to determine the distribution of hydrocarbon concentrations, if present, in soil during field activities and to select soil samples for subsequent laboratory analysis.

In accordance with Environmental Protection Agency (EPA) Method 5035 for field preservation of soil samples, each sample containerized for laboratory analysis was placed into the 40 milliliter (mL) vial using a disposable plastic Terra-Core® sampling device. Each vial was tightly sealed with a Teflon lid. Additional soil was collected in 4-ounce jars for laboratory analysis and Quality Assurance/Quality Control (QA/QC) purposes. Disposable nitrile gloves were worn during the collection of each soil sample and were changed between each sample acquisition. Sampling equipment was decontaminated between each use by thoroughly washing with a phosphate-free detergent (Alconox), followed by a rinse with isopropyl alcohol and then deionized water.

#### **4.3 GROUNDWATER SAMPLING**

Groundwater was encountered in probe boring P-2 at an approximate depth of 18 feet BGS. A one-inch temporary well was installed in probe boring P-2 to aid in the collection of a groundwater sample; however, the well did not produce a sufficient amount of water for sample collection. Groundwater was not encountered in probe borings P-1 and P-3 through P-7.

#### **4.4 SAMPLE PRESERVATION AND DISPATCH**

Soil samples retained for laboratory analysis were immediately placed on ice and preserved at 4°C. These samples were also labeled to document the appropriate project number, probe boring number, sample number, well number, project name, project location, date, time sampled, and analyses requested. The samples were subsequently sealed in insulated coolers and shipped via common courier to Accutest Laboratories in Scott, Louisiana, for laboratory analysis. The coolers were submitted with a chain-of-custody form. Chain-of-custody forms included the same information included on sample labels as well as container size, the collector's signature, and signatures of persons who maintained custody of the samples.

## 5.0 FINDINGS

### 5.1 SITE GEOLOGY

Subsurface geology at the site was determined by visual inspection of soil samples and observations made during installation of the probe borings. Site lithology included alluvial sediments ranging from clay to sandy silt. Groundwater was encountered in probe boring P-2 at an approximate depth of 17 feet BGS. A detailed lithologic description of each boring is provided in **Appendix B, Geologic Boring Logs**.

### 5.2 LABORATORY RESULTS

#### 5.2.1 Soil Analytical Results

All soil constituent concentrations were below laboratory detection limits with the exception of acetone, carbon disulfide, arsenic, barium, chromium, and lead. Concentrations of arsenic were revealed to be above the RECAP Screening Standard. In accordance with RECAP, the mean value for arsenic was calculated and compared to the RECAP Screening Standard in probe boring P-2 (12.5 ppm) and P-7 (17.4 ppm). The mean arsenic concentration, 9.11 ppm, was revealed to be below the RECAP Screening Standard of 12 ppm. Laboratory analytical results for soil are summarized in **Table C-1, Soil Analytical Summary**, in **Appendix C, Tables**. The arsenic concentration mean calculation is shown in **Table C-2, Arsenic Concentration Mean Calculation**. Soil concentrations are also presented in **Figure 3, Constituent Concentrations in Soil**. Complete soil analytical results are presented in **Appendix D, Laboratory Analytical Reports**.

Ranges of constituent concentrations detected in soil are summarized in the following table:

**CONSTITUENT CONCENTRATIONS IN SOIL**

Constituents	Minimum Constituent Concentrations (ppm)	Maximum Constituent Concentrations (ppm)	RECAP Screening Standards (ppm)	Maximum Concentration Boring Location	Sample Depth (ft BGS)
Acetone	<0.047	0.264	1.5	P-3	19-20
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Arsenic	2.5	17.4	12	P-7	19-20
Barium	10.7	55.6	2000	P-7	19-20
Chromium	5.8	15.1	100	P-7	19-20
Lead	8.3	14.7	100	P-5	19-20

\* Constituents not identified above were below laboratory detection limits as shown on **Table C-1**.

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

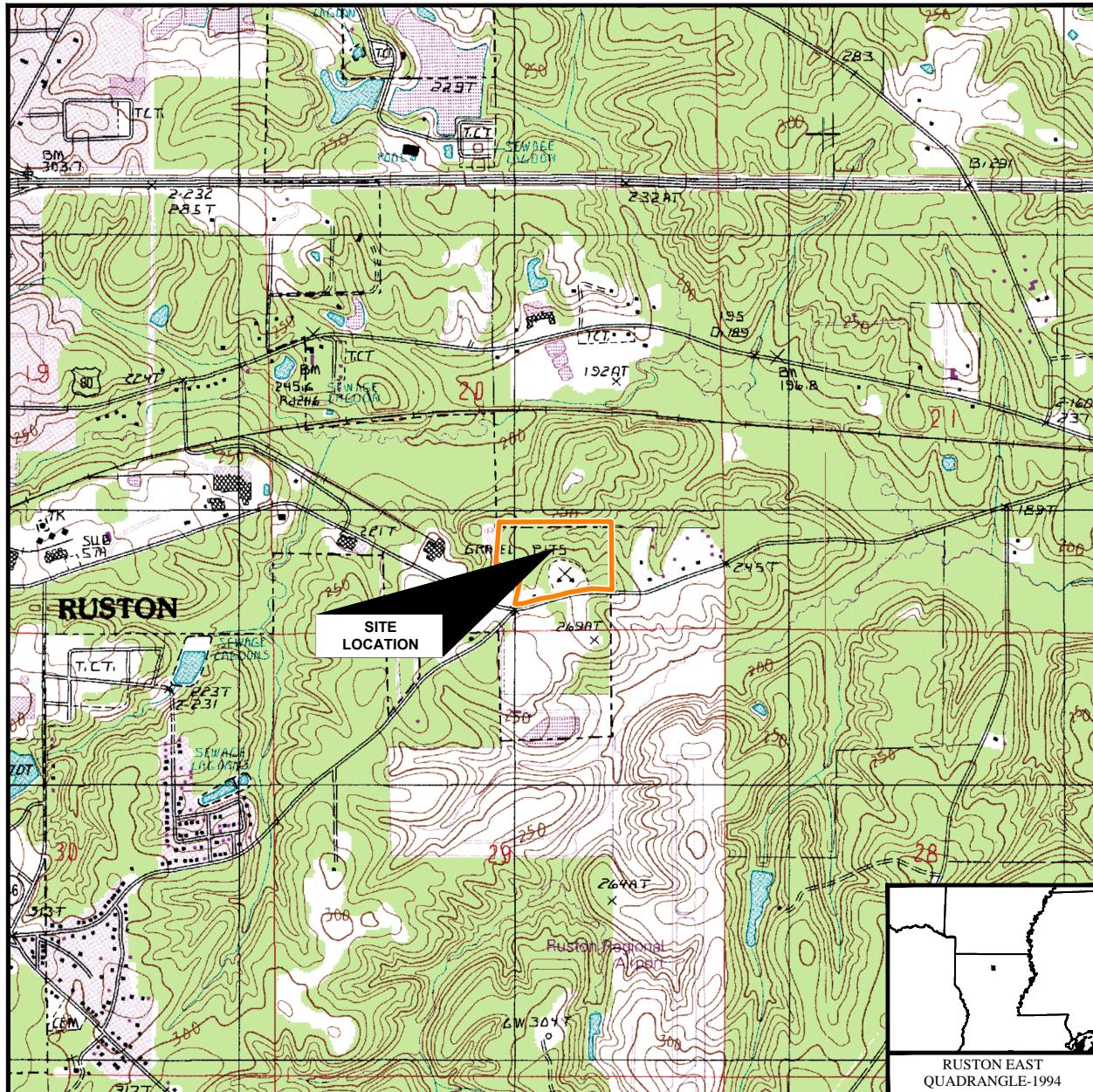
Based on the findings from the Phase II ESA, PPM concludes the following:

- Laboratory analysis of soil samples revealed all concentrations below the Louisiana Department of Environmental Quality (LDEQ) RECAP Screening Standards, with the exception of arsenic. In accordance with RECAP, the mean value for arsenic was calculated. The resulting mean concentration, 9.11 ppm, was compared to the RECAP Screening Standard of 12 ppm. The mean arsenic concentration was revealed to be below the RECAP Screening Standard.
- Groundwater was not encountered in probe borings P-1 and P-3 through P-7 and did not sufficiently recharge in P-2 to collect a groundwater sample; therefore, groundwater was not evaluated in this assessment.
- According to LDEQ regulations, once a property owner gains knowledge of a possible release or knowledge of constituents exceeding RECAP Screening Standards, they are required to notify the LDEQ Surveillance Division – Single Point of Contact (SPOC) within 24 hours and with written notification within seven days of obtaining such knowledge. On February 27, 2015, PPM notified the LDEQ – SPOC of the COCs found in soil collected during the Limited Phase II ESA via online notification as shown in **Appendix E, Online SPOC Notification**. The online and written notification showed that the calculated mean concentration for arsenic is below the RECAP Screening Standard.

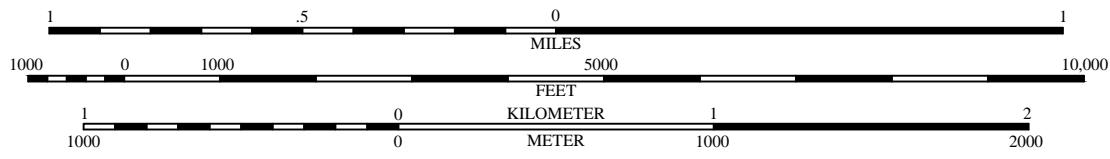
Based on the above conclusions, PPM recommends no further investigation at this site.

## **APPENDICES**

## **APPENDIX A – FIGURES**



SCALE: 1 : 24,000



PPM CONSULTANTS, INC.  
www.ppmco.com

DRAWN BY: MLR	DRAWN DATE: 02/27/15
PROJECT NUMBER: 113007	BILLING GROUP: ESAI

CITY OF RUSTON  
**FORMER LANDFILL**  
BEACON LIGHT ROAD AT McDONALD AVENUE  
RUSTON, LOUISIANA

SITE LOCATION MAP

FIGURE  
NUMBER

1



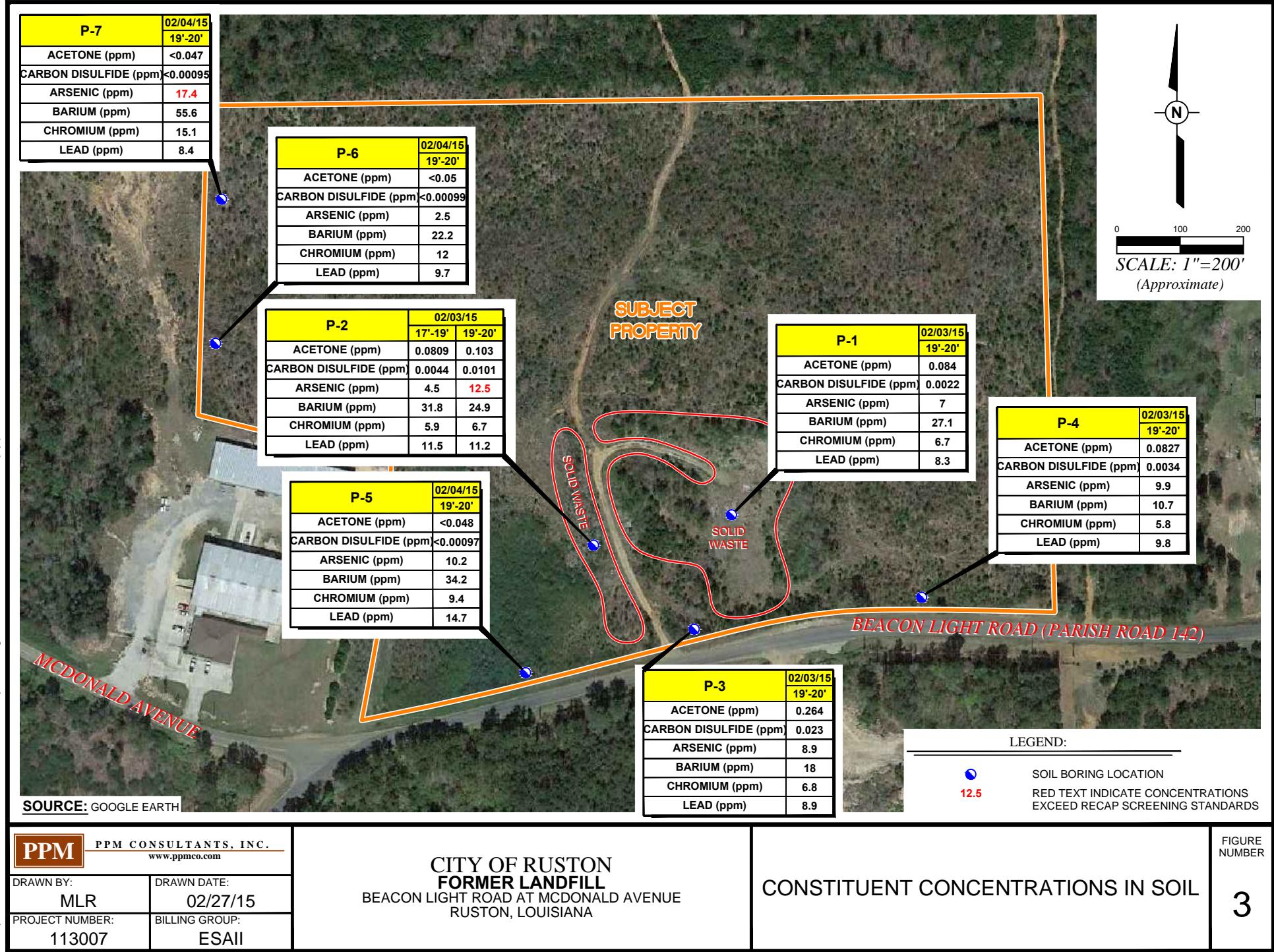
<b>PPM</b>	PPM CONSULTANTS, INC. www.ppmco.com
DRAWN BY: MLR	DRAWN DATE: 02/27/15
PROJECT NUMBER: 113007	BILLING GROUP: ESAI

CITY OF RUSTON  
**FORMER LANDFILL**  
BEACON LIGHT ROAD AT MCDONALD AVENUE  
RUSTON, LOUISIANA

## SITE MAP

FIGURE  
NUMBER

2



## **APPENDIX B – GEOLOGIC BORING LOGS**



## LOG OF BORING P-1

(Page 1 of 1)

Client: City of Ruston Site: Former Landfill Location: Ruston, Louisiana Project: Phase 2 ESA				Date Drilled : February 3, 2015 Drilled By : Lee Herrera Drilling Company : Walker Hill Environmental Drilling Method : Hydraulically-Driven Probe Total Boring Depth (ft.) : 20.0	Total Well Depth (ft.) : NA Initial GW Level (ft.) : NA Final GW Level (ft.) : NA Surface Elevation (ft.) : NA Logged By : Garrett Hill		
PPM Project No. 113007							
Depth in Feet	Surf. Elev.	USCS	Water Level GRAPHIC	Water Levels	Sample Headspace Concentration (ppm)		
				<span style="color: black;">▼</span> Final groundwater level <span style="color: gray;">▽</span> Initial groundwater level			
DESCRIPTION							
0	CLAY, very firm, moist, homogeneous, highly plastic, dark gray				1 0		
1					2 0		
2					3 0		
3					4 0		
4					5 0		
5					6 0		
6					7 0		
7					8 0		
8					9 0		
9					10 0		
10							
Boring terminated at 20.0 feet BGS. Sample S-10 submitted for laboratory analysis.							



## LOG OF BORING P-2

(Page 1 of 1)

Client: City of Ruston  
 Site: Former Landfill  
 Location: Ruston, Louisiana  
 Project: Phase 2 ESA

PPM Project No. 113007

Date Drilled	: February 3, 2015	Total Well Depth (ft.)	: 20.0
Drilled By	: Lee Herrera	Initial GW Level (ft.)	: 18.0
Drilling Company	: Walker Hill Environmental	Final GW Level (ft.)	: NA
Drilling Method	: Hydraulically-Driven Probe	Surface Elevation (ft.)	: NA
Total Boring Depth (ft.) : 20.0		Logged By	: Garrett Hill

Depth in Feet	Surf. Elev.	USCS	Water Level	GRAPHIC	Water Levels ▼ Final groundwater level ▽ Initial groundwater level	DESCRIPTION	Sample	Headspace Concentration (ppm)	Well ID: PW-2
0						SANDY CLAY, firm, moist, homogeneous, low plasticity, red	1	0	
1							2	0	
2							3	0	
3							4	0	
4							5	0	
5							6	0	
6							7	0	
7							8	0	
8							9	0	
9							10	0	
10									
11									
12									
13									
14									
15									
16									
17									
18	MH		▽			SILT, moist, homogeneous, low plasticity, gray			
19	CH								
20						CLAY, firm, moist, homogeneous, high plasticity, gray			
21									
22						Boring terminated at 20.0 feet BGS. Samples S-9 and S-10 submitted for laboratory analysis. Temporary well installed in borehole; however, well did not produce water.			



## LOG OF BORING P-3

(Page 1 of 1)

Client: City of Ruston Site: Former Landfill Location: Ruston, Louisiana Project: Phase 2 ESA				Date Drilled : February 3, 2015 Drilled By : Lee Herrera Drilling Company : Walker Hill Environmental Drilling Method : Hydraulically-Driven Probe Total Boring Depth (ft.) : 20.0	Total Well Depth (ft.) : NA Initial GW Level (ft.) : NA Final GW Level (ft.) : NA Surface Elevation (ft.) : NA Logged By : Garrett Hill
PPM Project No. 113007					
Depth in Feet	Surf. Elev.	USCS	Water Level	GRAPHIC	Water Levels ▼ Final groundwater level ▽ Initial groundwater level
					DESCRIPTION
0					SANDY CLAY, firm, moist, homogeneous, low plasticity, red
1					
2					
3					
4					
5					CLAY, firm, moist, homogeneous, highly plastic, gray
6					
7					
8					
9					
10					
20					Boring terminated at 20.0 feet BGS. Sample S-10 submitted for laboratory analysis.
21					
22					



## LOG OF BORING P-4

(Page 1 of 1)

Client: City of Ruston Site: Former Landfill Location: Ruston, Louisiana Project: Phase 2 ESA				Date Drilled : February 3, 2015 Drilled By : Lee Herrera Drilling Company : Walker Hill Environmental Drilling Method : Hydraulically-Driven Probe Total Boring Depth (ft.) : 20.0	Total Well Depth (ft.) : NA Initial GW Level (ft.) : NA Final GW Level (ft.) : NA Surface Elevation (ft.) : NA Logged By : Garrett Hill
PPM Project No. 113007					
Depth in Feet	Surf. Elev.	USCS	Water Level	GRAPHIC	Water Levels ▼ Final groundwater level ▽ Initial groundwater level
					DESCRIPTION
0					SANDY CLAY, firm, moist, homogeneous, low plasticity, gray/red
1					
2					
3					
4					
5					CLAY, firm, moist, homogeneous, high plasticity, gray
6					
7					
8					
9					
10					
20					Boring terminated at 20.0 feet BGS. Sample S-10 submitted for laboratory analysis.
21					
22					



## LOG OF BORING P-5

(Page 1 of 1)

Client: City of Ruston Site: Former Landfill Location: Ruston, Louisiana Project: Phase 2 ESA				Date Drilled : February 4, 2015 Drilled By : Lee Herrera Drilling Company : Walker Hill Environmental Drilling Method : Hydraulically-Driven Probe Total Boring Depth (ft.) : 20.0	Total Well Depth (ft.) : NA Initial GW Level (ft.) : NA Final GW Level (ft.) : NA Surface Elevation (ft.) : NA Logged By : Garrett Hill
PPM Project No. 113007					
Depth in Feet	Surf. Elev.	USCS	Water Level	GRAPHIC	Water Levels ▼ Final groundwater level ▽ Initial groundwater level
					DESCRIPTION
0					SANDY SILT, moist, homogeneous, low plasticity, tan/red
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					SILTY CLAY, soft, moist, homogeneous, medium plasticity, brown/gray
16					
17					
18					
19					
20					Boring terminated at 20.0 feet BGS. Sample S-10 submitted for laboratory analysis.
21					
22					



## LOG OF BORING P-6

(Page 1 of 1)

Client: City of Ruston Site: Former Landfill Location: Ruston, Louisiana Project: Phase 2 ESA				Date Drilled : February 4, 2015 Drilled By : Lee Herrera Drilling Company : Walker Hill Environmental Drilling Method : Hydraulically-Driven Probe Total Boring Depth (ft.) : 20.0	Total Well Depth (ft.) : NA Initial GW Level (ft.) : NA Final GW Level (ft.) : NA Surface Elevation (ft.) : NA Logged By : Garrett Hill
PPM Project No. 113007					
Depth in Feet	Surf. Elev.	USCS	Water Level	GRAPHIC	Water Levels ▼ Final groundwater level ▽ Initial groundwater level
					DESCRIPTION
0					SANDY CLAY, soft, moist, homogeneous, medium plasticity, tan/gray
1					
2					
3					
4					
5					
6					
7					
8					
9					CLAYEY SILT, soft, moist, homogeneous, low plasticity, gray
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					Boring terminated at 20.0 feet BGS. Sample S-10 submitted for laboratory analysis.
21					
22					



## LOG OF BORING P-7

(Page 1 of 1)

Client: City of Ruston Site: Former Landfill Location: Ruston, Louisiana Project: Phase 2 ESA				Date Drilled : February 4, 2015 Drilled By : Lee Herrera Drilling Company : Walker Hill Environmental Drilling Method : Hydraulically-Driven Probe Total Boring Depth (ft.) : 20.0	Total Well Depth (ft.) : NA Initial GW Level (ft.) : NA Final GW Level (ft.) : NA Surface Elevation (ft.) : NA Logged By : Garrett Hill
PPM Project No. 113007					
Depth in Feet	Surf. Elev.	USCS	Water Level	GRAPHIC	Water Levels ▼ Final groundwater level ▽ Initial groundwater level
					DESCRIPTION
0					SANDY CLAY, soft, moist, homogeneous, medium plasticity, red/tan
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11	SC				
12					
13					
14					
15					CLAY, firm, moist, homogeneous, highly plastic, gray
16					
17					
18	CH				
19					
20					Boring terminated at 20.0 feet BGS. Sample S-10 submitted for laboratory analysis.
21					
22					

## **APPENDIX C – TABLES**

**TABLE C-1**  
**SOIL ANALYTICAL SUMMARY**

Boring ID	Sample ID	Top Interval (ft)	Bottom Interval (ft)	Sample Date	Code	Headspace	Code	Benzene	Code	Toluene	Code	Ethyl-Benzene	Code	Xylenes	Code	MTBE (methyl tert-butyl ether)	Code	Acetone	Code	Bromodi-chloromethane	Code	Bromoform	Code	Carbon Disulfide
P-1	P-1-10	19	20	02/03/15		0	<	0.0005	<	0.0005	<	0.001	<	0.005	<	0.001		0.084	<	0.001	<	0.001		0.0022
P-2	P-2-9	17	19	02/03/15		0	<	0.00058	<	0.00058	<	0.0012	<	0.0058	<	0.0012		0.0809	<	0.0012	<	0.0012		0.0044
P-2	P-2-10	19	20	02/03/15		0	<	0.00052	<	0.00052	<	0.001	<	0.0052	<	0.001		0.103	<	0.001	<	0.001		0.0101
P-3	P-3-10	19	20	02/03/15		0	<	<b>0.00065</b>	<	<b>0.00065</b>	<	<b>0.0013</b>	<	<b>0.0065</b>	<	<b>0.0013</b>		<b>0.264</b>	<	<b>0.0013</b>	<	<b>0.0013</b>		<b>0.023</b>
P-4	P-4-10	19	20	02/03/15		0	<	0.00061	<	0.00061	<	0.0012	<	0.0061	<	0.0012		0.0827	<	0.0012	<	0.0012		0.0034
P-5	P-5-10	19	20	02/04/15		0	<	0.00048	<	0.00048	<	0.00097	<	0.0048	<	0.00097	<	0.048	<	0.00097	<	0.00097	<	0.00097
P-6	P-6-10	19	20	02/04/15		0	<	0.0005	<	0.0005	<	0.00099	<	0.005	<	0.00099	<	0.05	<	0.00099	<	0.00099	<	0.00099
P-7	P-7-10	19	20	02/04/15		0	<	0.00047	<	0.00047	<	0.00095	<	0.0047	<	0.00095	<	0.047	<	0.00095	<	0.00095	<	0.00095
						<b>Minimum Concentration</b>						< 0.00047						< 0.00047						
						<b>Maximum Concentration</b>						< 0.00065						< 0.0013						
						<b>Screening Standards</b>						0.051						20						
												19						120						
												0.077						1.5						
																		0.92						
																		1.8						
																		11						

**Notes:**

**Bold RED** type indicate concentration exceeds the RECAP SS.

**Bold BLUE** type indicates highest concentration for each COC.

NA - Not Analyzed for Parameter

All concentrations are in parts per million (ppm)

**TABLE C-1**  
**SOIL ANALYTICAL SUMMARY**

Boring ID	Sample ID	Top Interval (ft)	Bottom Interval (ft)	Sample Date	Code	Headspace	Code	Carbon Tetrachloride	Code	Chlorobenzene	Code	Chloroethane	Code	Chloroform	Code	Dibromochloromethane	Code	Dibromo-3-chloropropane,1,2-	Code	Dichlorobenzene,m-	Code	Dichlorobenzene,o-	Code	Dichlorobenzene,p-
P-1	P-1-10	19	20	02/03/15		0	<	0.001	<	0.001	<	0.001	<	0.0005	<	0.001	<	0.005	<	0.001	<	0.001	<	0.001
P-2	P-2-9	17	19	02/03/15		0	<	0.0012	<	0.0012	<	0.0012	<	0.00058	<	0.0012	<	0.0058	<	0.0012	<	0.0012	<	0.0012
P-2	P-2-10	19	20	02/03/15		0	<	0.001	<	0.001	<	0.001	<	0.00052	<	0.001	<	0.0052	<	0.001	<	0.001	<	0.001
P-3	P-3-10	19	20	02/03/15		0	<	<b>0.0013</b>	<	<b>0.0013</b>	<	<b>0.0013</b>	<	<b>0.00065</b>	<	<b>0.0013</b>	<	<b>0.0065</b>	<	<b>0.0013</b>	<	<b>0.0013</b>	<	<b>0.0013</b>
P-4	P-4-10	19	20	02/03/15		0	<	0.0012	<	0.0012	<	0.0012	<	0.00061	<	0.0012	<	0.0061	<	0.0012	<	0.0012	<	0.0012
P-5	P-5-10	19	20	02/04/15		0	<	0.00097	<	0.00097	<	0.00097	<	0.00048	<	0.00097	<	0.0048	<	0.00097	<	0.00097	<	0.00097
P-6	P-6-10	19	20	02/04/15		0	<	0.00099	<	0.00099	<	0.00099	<	0.0005	<	0.00099	<	0.005	<	0.00099	<	0.00099	<	0.00099
P-7	P-7-10	19	20	02/04/15		0	<	0.00095	<	0.00095	<	0.00095	<	0.00047	<	0.00095	<	0.0047	<	0.00095	<	0.00095	<	0.00095
				<b>Minimum Concentration</b>																				
				<b>Maximum Concentration</b>																				
				Screening Standards																				
				0.11																				
				3																				
				0.035																				
				0.3																				
				0.1																				
				0.01																				
				2.1																				
				29																				
				5.7																				

**Notes:**

**Bold RED** type indicate concentration exceeds the RECAP SS.

**Bold BLUE** type indicates highest concentration for each COC.

NA - Not Analyzed for Parameter

All concentrations are in parts per million (ppm)

**TABLE C-1**  
**SOIL ANALYTICAL SUMMARY**

Boring ID	Sample ID	Top Interval (ft)	Bottom Interval (ft)	Sample Date	Code Headspace	Code	Dichloroethane,1,1-	Code	Dichloroethane,1,2-	Code	Dichloroethylene,1,1-	Code	Dichloroethylene,cis,1,2-	Code	Dichloroethylene,trans,1,2-	Code	Dichloropropane,1,2-	Code	Dichloropropene,1,3-	Code	Hexachloroethane	Code	Isobutyl alcohol	
P-1	P-1-10	19	20	02/03/15	0	< 0.001	< 0.001	< 0.001	< 0.001	< 0.00058	< 0.00058	< 0.0012	< 0.0012	< 0.00058	< 0.00058	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.1		
P-2	P-2-9	17	19	02/03/15	0	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.00052	< 0.00052	< 0.001	< 0.001	< 0.00052	< 0.00052	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0052	< 0.0052	< 0.12		
P-2	P-2-10	19	20	02/03/15	0	< 0.001	< 0.001	< 0.0013	< 0.0013	< 0.0013	< 0.00065	< 0.00065	< 0.0013	< 0.0013	< 0.00065	< 0.00065	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0052	< 0.0052	< 0.1	
P-3	P-3-10	19	20	02/03/15	0	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.00065	< 0.00065	< 0.0013	< 0.0013	< 0.00065	< 0.00065	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0065	< 0.0065	< 0.13		
P-4	P-4-10	19	20	02/03/15	0	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.00061	< 0.00061	< 0.00097	< 0.00097	< 0.00048	< 0.00048	< 0.00097	< 0.00097	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0061	< 0.0061	< 0.12
P-5	P-5-10	19	20	02/04/15	0	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.00048	< 0.00048	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.0048	< 0.0048	< 0.0048	< 0.0048	< 0.097		
P-6	P-6-10	19	20	02/04/15	0	< 0.00099	< 0.00099	< 0.00099	< 0.00099	< 0.0005	< 0.0005	< 0.00099	< 0.00099	< 0.0005	< 0.0005	< 0.00099	< 0.00099	< 0.005	< 0.005	< 0.005	< 0.005	< 0.099		
P-7	P-7-10	19	20	02/04/15	0	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00047	< 0.00047	< 0.00095	< 0.00095	< 0.00047	< 0.00047	< 0.00095	< 0.00095	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.095		
<hr/>																								
Minimum Concentration																								
Maximum Concentration																								
Screening Standards																								
7.5																								
0.035																								
0.085																								
0.49																								
0.77																								
0.042																								
0.04																								
2.2																								
30																								

**Notes:**

**Bold RED** type indicate concentration exceeds the RECAP SS.

**Bold BLUE** type indicates highest concentration for each COC.

NA - Not Analyzed for Parameter

All concentrations are in parts per million (ppm)

**TABLE C-1**  
**SOIL ANALYTICAL SUMMARY**

Boring ID	Sample ID	Top Interval (ft)	Bottom Interval (ft)	Sample Date	Code Headspace	Code	Methyl bromide	Code	Methyl chloride	Code	Methylene chloride	Code	Methyl Ethyl Ketone	Code	4-methyl-2-pentanone	Code	Styrene	Code	Tetrachloroethane,1,1,1,2-	Code	Tetrachloroethane,1,1,2,2-	Code	Tetrachloroethylene
P-1	P-1-10	19	20	02/03/15	0	<	0.01	<	0.005	<	0.005	<	0.013	<	0.013	<	0.001	<	0.001	<	0.0005	<	0.001
P-2	P-2-9	17	19	02/03/15	0	<	0.012	<	0.0058	<	0.0058	<	0.014	<	0.014	<	0.0012	<	0.0012	<	0.00058	<	0.0012
P-2	P-2-10	19	20	02/03/15	0	<	0.01	<	0.0052	<	0.0052	<	0.013	<	0.013	<	0.001	<	0.001	<	0.00052	<	0.001
P-3	P-3-10	19	20	02/03/15	0	<	<b>0.013</b>	<	<b>0.0065</b>	<	<b>0.0065</b>	<	<b>0.016</b>	<	<b>0.016</b>	<	<b>0.0013</b>	<	<b>0.0013</b>	<	<b>0.00065</b>	<	<b>0.0013</b>
P-4	P-4-10	19	20	02/03/15	0	<	0.012	<	0.0061	<	0.0061	<	0.015	<	0.015	<	0.0012	<	0.0012	<	0.00061	<	0.0012
P-5	P-5-10	19	20	02/04/15	0	<	0.0097	<	0.0048	<	0.0048	<	0.012	<	0.012	<	0.00097	<	0.00097	<	0.00048	<	0.00097
P-6	P-6-10	19	20	02/04/15	0	<	0.0099	<	0.005	<	0.005	<	0.012	<	0.012	<	0.00099	<	0.00099	<	0.0005	<	0.00099
P-7	P-7-10	19	20	02/04/15	0	<	0.0095	<	0.0047	<	0.0047	<	0.012	<	0.012	<	0.00095	<	0.00095	<	0.00047	<	0.00095
<hr/>																							
Minimum Concentration																							
Maximum Concentration																							
Screening Standards																							
0.04																							
0.017																							
0.1																							
5																							
6.4																							
11																							
0.046																							
0.006																							
0.18																							

**Notes:**

**Bold RED** type indicate concentration exceeds the RECAP SS.

**Bold BLUE** type indicates highest concentration for each COC.

NA - Not Analyzed for Parameter

All concentrations are in parts per million (ppm)

**TABLE C-1**  
**SOIL ANALYTICAL SUMMARY**

Boring ID	Sample ID	Top Interval (ft)	Bottom Interval (ft)	Sample Date	Code	Headspace	Code	Trichloroethane,1,1,1-	Code	Trichloroethane,1,1,2-	Code	Trichloroethylene	Code	Trichlorofluoromethane	Code	Vinyl chloride	Code	Chlorophenol,2-	Code	Dichlorophenol,2,4-	Code	Dimethylphenol,2,4-	Code	Dinitrophenol,2,4-
P-1	P-1-10	19	20	02/03/15		0	<	0.0005	<	0.0005	<	0.0005	<	0.0005	<	0.0005	<	0.17	<	0.17	<	0.17	<	0.66
P-2	P-2-9	17	19	02/03/15		0	<	0.00058	<	0.00058	<	0.00058	<	0.00058	<	0.00058	<	0.17	<	0.17	<	0.17	<	0.64
P-2	P-2-10	19	20	02/03/15		0	<	0.00052	<	0.00052	<	0.00052	<	0.00052	<	0.00052	<	0.17	<	0.17	<	0.17	<	0.64
P-3	P-3-10	19	20	02/03/15		0	<	<b>0.00065</b>	<	<b>0.00065</b>	<	<b>0.00065</b>	<	<b>0.00065</b>	<	<b>0.00065</b>	<	0.17	<	0.17	<	0.17	<	0.65
P-4	P-4-10	19	20	02/03/15		0	<	0.00061	<	0.00061	<	0.00061	<	0.00061	<	0.00061	<	0.17	<	0.17	<	0.17	<	0.66
P-5	P-5-10	19	20	02/04/15		0	<	0.00048	<	0.00048	<	0.00048	<	0.00048	<	0.00048	<	0.17	<	0.17	<	0.17	<	0.65
P-6	P-6-10	19	20	02/04/15		0	<	0.0005	<	0.0005	<	0.0005	<	0.0005	<	0.0005	<	0.17	<	0.17	<	0.17	<	0.65
P-7	P-7-10	19	20	02/04/15		0	<	0.00047	<	0.00047	<	0.00047	<	0.00047	<	0.00047	<	0.17	<	0.17	<	0.17	<	0.65
						<b>Minimum Concentration</b>						< <b>0.00047</b>						< <b>0.00047</b>						
						<b>Maximum Concentration</b>						< <b>0.00065</b>						< <b>0.00065</b>						
						Screening Standards						4						0.058						
																		37						
																		0.013						
																		1.4						
																		12						
																		20						
																		1.7						

**Notes:**

**Bold RED** type indicate concentration exceeds the RECAP SS.

**Bold BLUE** type indicates highest concentration for each COC.

NA - Not Analyzed for Parameter

All concentrations are in parts per million (ppm)

**TABLE C-1**  
**SOIL ANALYTICAL SUMMARY**

Boring ID	Sample ID	Top Interval (ft)	Bottom Interval (ft)	Sample Date	Code	Headspace	Code	Nitrophenol,4-	Code	Pentachloro-phenol	Code	Phenol	Code	Tetrachloro-phenol,2,3,4,6-	Code	Trichloro-phenol,2,4,5-	Code	Trichloro-phenol,2,4,6-	Code	Acenaphthene	Code	Acenaphthylene	Code	Aniline	
P-1	P-1-10	19	20	02/03/15		0	<	<b>0.66</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.17</b>	
P-2	P-2-9	17	19	02/03/15		0	<	0.64	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	0.0098	<	0.0098	<	<b>0.17</b>	
P-2	P-2-10	19	20	02/03/15		0	<	0.64	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	0.0098	<	0.0098	<	<b>0.17</b>	
P-3	P-3-10	19	20	02/03/15		0	<	0.65	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	0.0099	<	0.0099	<	<b>0.17</b>	
P-4	P-4-10	19	20	02/03/15		0	<	<b>0.66</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.17</b>	
P-5	P-5-10	19	20	02/04/15		0	<	0.65	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	0.0099	<	0.0099	<	<b>0.17</b>	
P-6	P-6-10	19	20	02/04/15		0	<	0.65	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	0.0099	<	0.0099	<	<b>0.17</b>	
P-7	P-7-10	19	20	02/04/15		0	<	0.65	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	0.0098	<	0.0098	<	<b>0.17</b>	
<hr/>																									
Minimum Concentration																									
Maximum Concentration																									
Screening Standards																									
2.6																									
1.7																									
11																									
31																									
320																									
1.3																									
220																									
88																									
0.065																									

**Notes:**

**Bold RED** type indicate concentration exceeds the RECAP SS.

**Bold BLUE** type indicates highest concentration for each COC.

NA - Not Analyzed for Parameter

All concentrations are in parts per million (ppm)

**TABLE C-1**  
**SOIL ANALYTICAL SUMMARY**

Boring ID	Sample ID	Top Interval (ft)	Bottom Interval (ft)	Sample Date	Code	Headspace	Code	Anthracene	Code	Benz(a)-anthracene	Code	Benzo(a)-pyrene	Code	Benzo(b)-fluoranthene	Code	Biphenyl,1,1-	Code	Benzo(k)-fluoranthene	Code	Butyl benzyl phthalate	Code	Chloroaniline, 4-	Code	Bis(2-chloroethyl)-ether
P-1	P-1-10	19	20	02/03/15		0	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.17</b>	<	<b>0.01</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-2	P-2-9	17	19	02/03/15		0	<	0.0098	<	0.0098	<	0.0098	<	0.0098	<	<b>0.17</b>	<	0.0098	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-2	P-2-10	19	20	02/03/15		0	<	0.0098	<	0.0098	<	0.0098	<	0.0098	<	<b>0.17</b>	<	0.0098	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-3	P-3-10	19	20	02/03/15		0	<	0.0099	<	0.0099	<	0.0099	<	0.0099	<	<b>0.17</b>	<	0.0099	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-4	P-4-10	19	20	02/03/15		0	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.17</b>	<	<b>0.01</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-5	P-5-10	19	20	02/04/15		0	<	0.0099	<	0.0099	<	0.0099	<	0.0099	<	<b>0.17</b>	<	0.0099	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-6	P-6-10	19	20	02/04/15		0	<	0.0099	<	0.0099	<	0.0099	<	0.0099	<	<b>0.17</b>	<	0.0099	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-7	P-7-10	19	20	02/04/15		0	<	0.0098	<	0.0098	<	0.0098	<	0.0098	<	<b>0.17</b>	<	0.0098	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
<hr/>																								
Minimum Concentration																								
Maximum Concentration																								
Screening Standards																								

**Notes:**

**Bold RED** type indicate concentration exceeds the RECAP SS.

**Bold BLUE** type indicates highest concentration for each COC.

NA - Not Analyzed for Parameter

All concentrations are in parts per million (ppm)

**TABLE C-1**  
**SOIL ANALYTICAL SUMMARY**

Boring ID	Sample ID	Top Interval (ft)	Bottom Interval (ft)	Sample Date	Code	Headspace	Code	Bis(2-chloroisopropyl)-ether	Code	Chlor-naphthalene, 2-	Code	Chrysene	Code	Dibenz(a,h)-anthracene	Code	Dibenzofuran	Code	Dichlorobenzidine,3,3-	Code	Diethyl-phthalate	Code	Dimethyl-phthalate	Code	Di-n-octylphthalate
P-1	P-1-10	19	20	02/03/15		0	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-2	P-2-9	17	19	02/03/15		0	<	<b>0.17</b>	<	<b>0.17</b>	<	0.0098	<	0.0098	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-2	P-2-10	19	20	02/03/15		0	<	<b>0.17</b>	<	<b>0.17</b>	<	0.0098	<	0.0098	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-3	P-3-10	19	20	02/03/15		0	<	<b>0.17</b>	<	<b>0.17</b>	<	0.0099	<	0.0099	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-4	P-4-10	19	20	02/03/15		0	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-5	P-5-10	19	20	02/04/15		0	<	<b>0.17</b>	<	<b>0.17</b>	<	0.0099	<	0.0099	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-6	P-6-10	19	20	02/04/15		0	<	<b>0.17</b>	<	<b>0.17</b>	<	0.0099	<	0.0099	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-7	P-7-10	19	20	02/04/15		0	<	<b>0.17</b>	<	<b>0.17</b>	<	0.0098	<	0.0098	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>	<	<b>0.17</b>
<hr/>																								
Minimum Concentration																								
Maximum Concentration																								
Screening Standards																								
0.8																								
500																								
76																								
0.33																								
24																								
1.8																								
360																								
1500																								
3500																								

**Notes:**

**Bold RED** type indicate concentration exceeds the RECAP SS.

**Bold BLUE** type indicates highest concentration for each COC.

NA - Not Analyzed for Parameter

All concentrations are in parts per million (ppm)

**TABLE C-1**  
**SOIL ANALYTICAL SUMMARY**

## Notes

**Bold RED** type indicate concentration exceeds the RECAP SS.

**Bold BLUE** type indicates highest concentration for each COC.

NA - Not Analyzed for Parameter

All concentrations are in parts per million (ppm)

**TABLE C-1**  
**SOIL ANALYTICAL SUMMARY**

Boring ID	Sample ID	Top Interval (ft)	Bottom Interval (ft)	Sample Date	Code	Headspace	Code	Indeno(1,2,3-cd)-pyrene	Code	Isophorone	Code	Methyl-naphthalene, 2-	Code	Naphthalene	Code	Nitroaniline,2-	Code	Nitroaniline,3-	Code	Nitroaniline,4-	Code	Nitrobenzene	Code	Nitrosodi-n-propylamine, n-
P-1	P-1-10	19	20	02/03/15		0	<	<b>0.01</b>	<	<b>0.17</b>	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.66</b>	<	<b>0.66</b>	<	<b>0.66</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-2	P-2-9	17	19	02/03/15		0	<	0.0098	<	<b>0.17</b>	<	0.0098	<	0.0098	<	0.64	<	0.64	<	0.64	<	<b>0.17</b>	<	<b>0.17</b>
P-2	P-2-10	19	20	02/03/15		0	<	0.0098	<	<b>0.17</b>	<	0.0098	<	0.0098	<	0.64	<	0.64	<	0.64	<	<b>0.17</b>	<	<b>0.17</b>
P-3	P-3-10	19	20	02/03/15		0	<	0.0099	<	<b>0.17</b>	<	0.0099	<	0.0099	<	0.65	<	0.65	<	0.65	<	<b>0.17</b>	<	<b>0.17</b>
P-4	P-4-10	19	20	02/03/15		0	<	<b>0.01</b>	<	<b>0.17</b>	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.66</b>	<	<b>0.66</b>	<	<b>0.66</b>	<	<b>0.17</b>	<	<b>0.17</b>
P-5	P-5-10	19	20	02/04/15		0	<	0.0099	<	<b>0.17</b>	<	0.0099	<	0.0099	<	0.65	<	0.65	<	0.65	<	<b>0.17</b>	<	<b>0.17</b>
P-6	P-6-10	19	20	02/04/15		0	<	0.0099	<	<b>0.17</b>	<	0.0099	<	0.0099	<	0.65	<	0.65	<	0.65	<	<b>0.17</b>	<	<b>0.17</b>
P-7	P-7-10	19	20	02/04/15		0	<	0.0098	<	<b>0.17</b>	<	0.0098	<	0.0098	<	0.65	<	0.65	<	0.65	<	<b>0.17</b>	<	<b>0.17</b>

**TABLE C-1**  
**SOIL ANALYTICAL SUMMARY**

Boring ID	Sample ID	Top Interval (ft)	Bottom Interval (ft)	Sample Date	Code	Headspace	Code	N-nitrosodi-phenylamine	Code	Phenanthrene	Code	Pyrene	Code	Tetrachloro-benzene,1,2,4,5-	Code	Trichloro-benzene,1,2,4-	Code	Arsenic	Code	Barium	Code	Cadmium	Code	Total Chromium
P-1	P-1-10	19	20	02/03/15		0	<	<b>0.17</b>	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.17</b>	<	<b>0.17</b>		7		27.1	<	<b>1</b>		6.7
P-2	P-2-9	17	19	02/03/15		0	<	<b>0.17</b>	<	0.0098	<	0.0098	<	<b>0.17</b>	<	<b>0.17</b>		4.5		31.8	<	<b>1</b>		5.9
P-2	P-2-10	19	20	02/03/15		0	<	<b>0.17</b>	<	0.0098	<	0.0098	<	<b>0.17</b>	<	<b>0.17</b>		<b>12.5</b>		24.9	<	<b>1</b>		6.7
P-3	P-3-10	19	20	02/03/15		0	<	<b>0.17</b>	<	0.0099	<	0.0099	<	<b>0.17</b>	<	<b>0.17</b>		8.9		18	<	<b>1</b>		6.8
P-4	P-4-10	19	20	02/03/15		0	<	<b>0.17</b>	<	<b>0.01</b>	<	<b>0.01</b>	<	<b>0.17</b>	<	<b>0.17</b>		9.9		10.7	<	0.93		5.8
P-5	P-5-10	19	20	02/04/15		0	<	<b>0.17</b>	<	0.0099	<	0.0099	<	<b>0.17</b>	<	<b>0.17</b>		10.2		34.2	<	<b>1</b>		9.4
P-6	P-6-10	19	20	02/04/15		0	<	<b>0.17</b>	<	0.0099	<	0.0099	<	<b>0.17</b>	<	<b>0.17</b>		2.5		22.2	<	0.98		12
P-7	P-7-10	19	20	02/04/15		0	<	<b>0.17</b>	<	0.0098	<	0.0098	<	<b>0.17</b>	<	<b>0.17</b>		<b>17.4</b>		<b>55.6</b>	<	<b>1</b>		<b>15.1</b>
<hr/>																								
Minimum Concentration																								
Maximum Concentration																								
Screening Standards																								
2.1																								
660																								
1100																								
6.9																								
14																								
12																								
2000																								
20																								
100																								

**Notes:**

**Bold RED** type indicate concentration exceeds the RECAP SS.

**Bold BLUE** type indicates highest concentration for each COC.

NA - Not Analyzed for Parameter

All concentrations are in parts per million (ppm)

**TABLE C-1**  
**SOIL ANALYTICAL SUMMARY**

Boring ID	Sample ID	Top Interval (ft)	Bottom Interval (ft)	Sample Date	Code	Headspace	Code	Lead	Code	Mercury (inorganic)	Code	Selenium	Code	Silver
P-1	P-1-10	19	20	02/03/15		0		8.3	<	0.1	<	100	<	1
P-2	P-2-9	17	19	02/03/15		0		11.5	<	0.1	<	100	<	1
P-2	P-2-10	19	20	02/03/15		0		11.2	<	0.1	<	10	<	1
P-3	P-3-10	19	20	02/03/15		0		8.9	<	0.1	<	100	<	1
P-4	P-4-10	19	20	02/03/15		0		9.8	<	0.1	<	9.3	<	0.93
P-5	P-5-10	19	20	02/04/15		0		14.7	<	0.1	<	10	<	1
P-6	P-6-10	19	20	02/04/15		0		9.7	<	0.1	<	98	<	0.98
P-7	P-7-10	19	20	02/04/15		0		8.4	<	0.1	<	10	<	1

**TABLE C-2**  
**ARSENIC CONCENTRATION MEAN CALCULATION**

Arsenic Concentration	Sample Location
7	P-1-10
4.5	P-2-9
12.5	P-2-10
8.9	P-3-10
9.9	P-4-10
10.2	P-5-10
2.5	P-6-10
17.4	P-7-10

**Mean Value:** **9.11**

**RECAP Screening Standard:** **12**

## **APPENDIX D – LABORATORY ANALYTICAL REPORTS**



02/19/15



## Lafayette

LABORATORIES

### Technical Report for

#### PPM Consultants

(REIMB)City of Ruston Former Landfill, Ruston, LA  
113007

Accutest Job Number: LA3263

Sampling Date: 02/03/15

#### Report to:

PPM Consultants  
1600 Lamy Lane  
Monroe, LA 71201  
chasity.reed@ppmco.com; kevin.thompson@ppmco.com;  
robin.bowden@ppmco.com; Chris.Sampognaro@ppmco.com  
ATTN: Chasity Reed

Total number of pages in report: **83**



Test results contained within this data package meet the requirements  
of the National Environmental Laboratory Accreditation Program  
and/or state specific certification programs as applicable.

Ron Benjamin  
Lab Director

Client Service contact: Rebecca Hebert 337-237-4775

Certifications: LDEQ(2048), LDHH(LA150012), AR(14-045-04), FL(E87657), KY(#31), NC(487), SC(73004001),  
TX(T104704186-15-7), WV(257)

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Test results relate only to samples analyzed.

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2  
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7



## Sample Summary

PPM Consultants

**Job No:** LA3263(REIMB)City of Ruston Former Landfill, Ruston, LA  
Project No: 113007

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID	
LA3263-1	02/03/15	11:00	BGH	02/06/15	SO	Soil	P-1-10
LA3263-2	02/03/15	12:30	BGH	02/06/15	SO	Soil	P-2-10
LA3263-3	02/03/15	14:45	BGH	02/06/15	SO	Soil	P-3-10
LA3263-4	02/03/15	16:40	BGH	02/06/15	SO	Soil	P-4-10
LA3263-5	02/03/15	11:28	BGH	02/06/15	SO	Soil	P-5-10
LA3263-6	02/03/15	12:25	BGH	02/06/15	SO	Soil	P-6-10
LA3263-7	02/03/15	13:17	BGH	02/06/15	SO	Soil	P-7-10
LA3263-8	02/03/15	12:25	BGH	02/06/15	SO	Soil	P-2-9

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.

**Summary of Hits**

**Job Number:** LA3263  
**Account:** PPM Consultants  
**Project:** (REIMB)City of Ruston Former Landfill, Ruston, LA  
**Collected:** 02/03/15

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
<b>LA3263-1 P-1-10</b>						
Acetone	0.0840	0.050			mg/kg	SW846 8260B
Carbon Disulfide	0.0022	0.0010			mg/kg	SW846 8260B
Arsenic	7.0	1.0			mg/kg	SW846 6010B
Barium	27.1	1.0			mg/kg	SW846 6010B
Chromium	6.7	1.0			mg/kg	SW846 6010B
Lead	8.3	1.0			mg/kg	SW846 6010B
<b>LA3263-2 P-2-10</b>						
Acetone	0.103	0.052			mg/kg	SW846 8260B
Carbon Disulfide	0.0101	0.0010			mg/kg	SW846 8260B
Arsenic	12.5	1.0			mg/kg	SW846 6010B
Barium	24.9	1.0			mg/kg	SW846 6010B
Chromium	6.7	1.0			mg/kg	SW846 6010B
Lead	11.2	1.0			mg/kg	SW846 6010B
<b>LA3263-3 P-3-10</b>						
Acetone <sup>a</sup>	0.264	0.065			mg/kg	SW846 8260B
Carbon Disulfide <sup>a</sup>	0.0230	0.0013			mg/kg	SW846 8260B
Arsenic	8.9	1.0			mg/kg	SW846 6010B
Barium	18.0	1.0			mg/kg	SW846 6010B
Chromium	6.8	1.0			mg/kg	SW846 6010B
Lead	8.9	1.0			mg/kg	SW846 6010B
<b>LA3263-4 P-4-10</b>						
Acetone	0.0827	0.061			mg/kg	SW846 8260B
Carbon Disulfide	0.0034	0.0012			mg/kg	SW846 8260B
Arsenic	9.9	0.93			mg/kg	SW846 6010B
Barium	10.7	0.93			mg/kg	SW846 6010B
Chromium	5.8	0.93			mg/kg	SW846 6010B
Lead	9.8	0.93			mg/kg	SW846 6010B
<b>LA3263-5 P-5-10</b>						
Arsenic	10.2	1.0			mg/kg	SW846 6010B
Barium	34.2	1.0			mg/kg	SW846 6010B
Chromium	9.4	1.0			mg/kg	SW846 6010B
Lead	14.7	1.0			mg/kg	SW846 6010B

**Summary of Hits**

**Job Number:** LA3263  
**Account:** PPM Consultants  
**Project:** (REIMB)City of Ruston Former Landfill, Ruston, LA  
**Collected:** 02/03/15

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
<b>LA3263-6</b>	<b>P-6-10</b>					
Arsenic	2.5	0.98			mg/kg	SW846 6010B
Barium	22.2	0.98			mg/kg	SW846 6010B
Chromium	12.0	0.98			mg/kg	SW846 6010B
Lead	9.7	0.98			mg/kg	SW846 6010B
<b>LA3263-7</b>	<b>P-7-10</b>					
Arsenic	17.4	1.0			mg/kg	SW846 6010B
Barium	55.6	1.0			mg/kg	SW846 6010B
Chromium	15.1	1.0			mg/kg	SW846 6010B
Lead	8.4	1.0			mg/kg	SW846 6010B
<b>LA3263-8</b>	<b>P-2-9</b>					
Acetone	0.0809	0.058			mg/kg	SW846 8260B
Carbon Disulfide	0.0044	0.0012			mg/kg	SW846 8260B
Arsenic	4.5	1.0			mg/kg	SW846 6010B
Barium	31.8	1.0			mg/kg	SW846 6010B
Chromium	5.9	1.0			mg/kg	SW846 6010B
Lead	11.5	1.0			mg/kg	SW846 6010B

(a) Internal standards are not within control limits due to matrix interference. Confirmed by reanalysis.



## Sample Results

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### Report of Analysis

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**Report of Analysis**

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<b>Client Sample ID:</b>	P-1-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-1	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K004029.D	1	02/13/15	SV	n/a	n/a	V1K78
Run #2							

	<b>Initial Weight</b>
Run #1	5.0 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	0.0840	0.050	mg/kg	
71-43-2	Benzene	ND	0.00050	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0010	mg/kg	
75-25-2	Bromoform	ND	0.0010	mg/kg	
75-15-0	Carbon Disulfide	0.0022	0.0010	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/kg	
108-90-7	Chlorobenzene	ND	0.0010	mg/kg	
75-00-3	Chloroethane	ND	0.0010	mg/kg	
67-66-3	Chloroform	ND	0.00050	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0010	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0050	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00050	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00050	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/kg	
100-41-4	Ethylbenzene	ND	0.0010	mg/kg	
67-72-1	Hexachloroethane	ND	0.0050	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.10	mg/kg	
74-83-9	Methyl Bromide	ND	0.010	mg/kg	
74-87-3	Methyl Chloride	ND	0.0050	mg/kg	
75-09-2	Methylene Chloride	ND	0.0050	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-1-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-1	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	mg/kg	
100-42-5	Styrene	ND	0.0010	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/kg	
108-88-3	Toluene	ND	0.00050	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00050	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00050	mg/kg	
79-01-6	Trichloroethylene	ND	0.00050	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00050	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00050	mg/kg	
	m,p-Xylene	ND	0.0020	mg/kg	
95-47-6	o-Xylene	ND	0.0010	mg/kg	
1330-20-7	Xylene (total)	ND	0.0050	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	104%		59-143%
2037-26-5	Toluene-D8	96%		52-159%
460-00-4	4-Bromofluorobenzene	83%		38-183%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-1-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-1	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002344.D	1	02/09/15	HL	02/09/15	OP343	EC303
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.0 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.66	mg/kg	
100-02-7	4-Nitrophenol	ND	0.66	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.010	mg/kg	
208-96-8	Acenaphthylene	ND	0.010	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.010	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.010	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.010	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.010	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.010	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.010	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.010	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-1-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-1	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.010	mg/kg	
86-73-7	Fluorene	ND	0.010	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.66	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.010	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.010	mg/kg	
91-20-3	Naphthalene	ND	0.010	mg/kg	
88-74-4	2-Nitroaniline	ND	0.66	mg/kg	
99-09-2	3-Nitroaniline	ND	0.66	mg/kg	
100-01-6	4-Nitroaniline	ND	0.66	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.010	mg/kg	
129-00-0	Pyrene	ND	0.010	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	52%		15-133%
4165-62-2	Phenol-d5	55%		21-127%
118-79-6	2,4,6-Tribromophenol	64%		7-142%
4165-60-0	Nitrobenzene-d5	55%		43-128%
321-60-8	2-Fluorobiphenyl	61%		47-126%
1718-51-0	Terphenyl-d14	70%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-1-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-1	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	7.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	27.1	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	6.7	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.3	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium <sup>b</sup>	< 100	100	mg/kg	100	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164  
 (2) Instrument QC Batch: MA171  
 (3) Instrument QC Batch: MA174  
 (4) Prep QC Batch: MP301  
 (5) Prep QC Batch: MP313

- (a) All results reported on a wet weight basis.  
 (b) Elevated reporting limit due to dilution required for matrix interference.

RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-2	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K004195.D	1	02/17/15	SV	n/a	n/a	V1K80
Run #2							

	<b>Initial Weight</b>
Run #1	4.8 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	0.103	0.052	mg/kg	
71-43-2	Benzene	ND	0.00052	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0010	mg/kg	
75-25-2	Bromoform	ND	0.0010	mg/kg	
75-15-0	Carbon Disulfide	0.0101	0.0010	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/kg	
108-90-7	Chlorobenzene	ND	0.0010	mg/kg	
75-00-3	Chloroethane	ND	0.0010	mg/kg	
67-66-3	Chloroform	ND	0.00052	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0010	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0052	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00052	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00052	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/kg	
100-41-4	Ethylbenzene	ND	0.0010	mg/kg	
67-72-1	Hexachloroethane	ND	0.0052	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.10	mg/kg	
74-83-9	Methyl Bromide	ND	0.010	mg/kg	
74-87-3	Methyl Chloride	ND	0.0052	mg/kg	
75-09-2	Methylene Chloride	ND	0.0052	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-2	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	mg/kg	
100-42-5	Styrene	ND	0.0010	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00052	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/kg	
108-88-3	Toluene	ND	0.00052	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00052	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00052	mg/kg	
79-01-6	Trichloroethylene	ND	0.00052	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00052	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00052	mg/kg	
	m,p-Xylene	ND	0.0021	mg/kg	
95-47-6	o-Xylene	ND	0.0010	mg/kg	
1330-20-7	Xylene (total)	ND	0.0052	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	123%		59-143%
2037-26-5	Toluene-D8	94%		52-159%
460-00-4	4-Bromofluorobenzene	73%		38-183%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-2	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002345.D	1	02/09/15	HL	02/09/15	OP343	EC303
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.5 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.64	mg/kg	
100-02-7	4-Nitrophenol	ND	0.64	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.0098	mg/kg	
208-96-8	Acenaphthylene	ND	0.0098	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.0098	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.0098	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.0098	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.0098	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.0098	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.0098	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0098	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-2	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.0098	mg/kg	
86-73-7	Fluorene	ND	0.0098	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.64	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0098	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.0098	mg/kg	
91-20-3	Naphthalene	ND	0.0098	mg/kg	
88-74-4	2-Nitroaniline	ND	0.64	mg/kg	
99-09-2	3-Nitroaniline	ND	0.64	mg/kg	
100-01-6	4-Nitroaniline	ND	0.64	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.0098	mg/kg	
129-00-0	Pyrene	ND	0.0098	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	58%		15-133%
4165-62-2	Phenol-d5	60%		21-127%
118-79-6	2,4,6-Tribromophenol	66%		7-142%
4165-60-0	Nitrobenzene-d5	63%		43-128%
321-60-8	2-Fluorobiphenyl	67%		47-126%
1718-51-0	Terphenyl-d14	69%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-2	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	12.5	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	24.9	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	6.7	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	11.2	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium	< 10	10	mg/kg	10	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164
- (2) Instrument QC Batch: MA171
- (3) Instrument QC Batch: MA173
- (4) Prep QC Batch: MP301
- (5) Prep QC Batch: MP313

(a) All results reported on a wet weight basis.

RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-3-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-3	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1 <sup>b</sup>	1K004196.D	1	02/17/15	SV	n/a	n/a	V1K80
Run #2							

	<b>Initial Weight</b>
Run #1	3.9 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	0.264	0.065	mg/kg	
71-43-2	Benzene	ND	0.00065	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0013	mg/kg	
75-25-2	Bromoform	ND	0.0013	mg/kg	
75-15-0	Carbon Disulfide	0.0230	0.0013	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.0013	mg/kg	
108-90-7	Chlorobenzene	ND	0.0013	mg/kg	
75-00-3	Chloroethane	ND	0.0013	mg/kg	
67-66-3	Chloroform	ND	0.00065	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0013	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0065	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0013	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0013	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0013	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0013	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0013	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0013	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00065	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00065	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.0013	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0013	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0013	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0013	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.0013	mg/kg	
100-41-4	Ethylbenzene	ND	0.0013	mg/kg	
67-72-1	Hexachloroethane	ND	0.0065	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.13	mg/kg	
74-83-9	Methyl Bromide	ND	0.013	mg/kg	
74-87-3	Methyl Chloride	ND	0.0065	mg/kg	
75-09-2	Methylene Chloride	ND	0.0065	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.016	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.016	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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**Client Sample ID:** P-3-10  
**Lab Sample ID:** LA3263-3  
**Matrix:** SO - Soil  
**Method:** SW846 8260B  
**Project:** (REIMB)City of Ruston Former Landfill, Ruston, LA

**Date Sampled:** 02/03/15  
**Date Received:** 02/06/15  
**Percent Solids:** n/a<sup>a</sup>

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0013	mg/kg	
100-42-5	Styrene	ND	0.0013	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0013	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00065	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0013	mg/kg	
108-88-3	Toluene	ND	0.00065	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00065	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00065	mg/kg	
79-01-6	Trichloroethylene	ND	0.00065	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00065	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00065	mg/kg	
	m,p-Xylene	ND	0.0026	mg/kg	
95-47-6	o-Xylene	ND	0.0013	mg/kg	
1330-20-7	Xylene (total)	ND	0.0065	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	163%		59-143%
2037-26-5	Toluene-D8	97%		52-159%
460-00-4	4-Bromofluorobenzene	96%		38-183%

(a) All results reported on a wet weight basis.

(b) Internal standards are not within control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-3-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-3	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		
Run #1	File ID C0002346.D	DF 1	Analyzed 02/09/15
Run #2			By HL
		Prep Date 02/09/15	Prep Batch OP343
			Analytical Batch EC303
	<b>Initial Weight</b> Run #1 20.2 g	<b>Final Volume</b> 1.0 ml	
Run #2			

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.65	mg/kg	
100-02-7	4-Nitrophenol	ND	0.65	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.0099	mg/kg	
208-96-8	Acenaphthylene	ND	0.0099	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.0099	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.0099	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.0099	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.0099	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.0099	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.0099	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0099	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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**Client Sample ID:** P-3-10  
**Lab Sample ID:** LA3263-3  
**Matrix:** SO - Soil  
**Method:** SW846 8270D SW846 3546  
**Project:** (REIMB)City of Ruston Former Landfill, Ruston, LA

**Date Sampled:** 02/03/15  
**Date Received:** 02/06/15  
**Percent Solids:** n/a<sup>a</sup>

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.0099	mg/kg	
86-73-7	Fluorene	ND	0.0099	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.65	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0099	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.0099	mg/kg	
91-20-3	Naphthalene	ND	0.0099	mg/kg	
88-74-4	2-Nitroaniline	ND	0.65	mg/kg	
99-09-2	3-Nitroaniline	ND	0.65	mg/kg	
100-01-6	4-Nitroaniline	ND	0.65	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.0099	mg/kg	
129-00-0	Pyrene	ND	0.0099	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		15-133%
4165-62-2	Phenol-d5	52%		21-127%
118-79-6	2,4,6-Tribromophenol	62%		7-142%
4165-60-0	Nitrobenzene-d5	57%		43-128%
321-60-8	2-Fluorobiphenyl	62%		47-126%
1718-51-0	Terphenyl-d14	65%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-3-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-3	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	8.9	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	18.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	6.8	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.9	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium <sup>b</sup>	< 100	100	mg/kg	100	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164  
 (2) Instrument QC Batch: MA171  
 (3) Instrument QC Batch: MA174  
 (4) Prep QC Batch: MP301  
 (5) Prep QC Batch: MP313

- (a) All results reported on a wet weight basis.  
 (b) Elevated reporting limit due to dilution required for matrix interference.

RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-4-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-4	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K003801.D	1	02/09/15	NN	n/a	n/a	V1K72
Run #2							

	<b>Initial Weight</b>
Run #1	4.1 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	0.0827	0.061	mg/kg	
71-43-2	Benzene	ND	0.00061	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0012	mg/kg	
75-25-2	Bromoform	ND	0.0012	mg/kg	
75-15-0	Carbon Disulfide	0.0034	0.0012	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.0012	mg/kg	
108-90-7	Chlorobenzene	ND	0.0012	mg/kg	
75-00-3	Chloroethane	ND	0.0012	mg/kg	
67-66-3	Chloroform	ND	0.00061	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0012	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0061	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0012	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0012	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0012	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0012	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0012	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0012	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00061	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00061	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.0012	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0012	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0012	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0012	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.0012	mg/kg	
100-41-4	Ethylbenzene	ND	0.0012	mg/kg	
67-72-1	Hexachloroethane	ND	0.0061	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.12	mg/kg	
74-83-9	Methyl Bromide	ND	0.012	mg/kg	
74-87-3	Methyl Chloride	ND	0.0061	mg/kg	
75-09-2	Methylene Chloride	ND	0.0061	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.015	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.015	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-4-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-4	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0012	mg/kg	
100-42-5	Styrene	ND	0.0012	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0012	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00061	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0012	mg/kg	
108-88-3	Toluene	ND	0.00061	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00061	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00061	mg/kg	
79-01-6	Trichloroethylene	ND	0.00061	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00061	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00061	mg/kg	
	m,p-Xylene	ND	0.0024	mg/kg	
95-47-6	o-Xylene	ND	0.0012	mg/kg	
1330-20-7	Xylene (total)	ND	0.0061	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	115%		59-143%
2037-26-5	Toluene-D8	96%		52-159%
460-00-4	4-Bromofluorobenzene	86%		38-183%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-4-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-4	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002347.D	1	02/09/15	HL	02/09/15	OP343	EC303
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.1 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.66	mg/kg	
100-02-7	4-Nitrophenol	ND	0.66	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.010	mg/kg	
208-96-8	Acenaphthylene	ND	0.010	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.010	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.010	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.010	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.010	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.010	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.010	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.010	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-4-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-4	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.010	mg/kg	
86-73-7	Fluorene	ND	0.010	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.66	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.010	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.010	mg/kg	
91-20-3	Naphthalene	ND	0.010	mg/kg	
88-74-4	2-Nitroaniline	ND	0.66	mg/kg	
99-09-2	3-Nitroaniline	ND	0.66	mg/kg	
100-01-6	4-Nitroaniline	ND	0.66	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.010	mg/kg	
129-00-0	Pyrene	ND	0.010	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%		15-133%
4165-62-2	Phenol-d5	51%		21-127%
118-79-6	2,4,6-Tribromophenol	57%		7-142%
4165-60-0	Nitrobenzene-d5	54%		43-128%
321-60-8	2-Fluorobiphenyl	56%		47-126%
1718-51-0	Terphenyl-d14	62%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-4-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-4	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	9.9	0.93	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	10.7	0.93	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 0.93	0.93	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	5.8	0.93	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	9.8	0.93	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium	< 9.3	9.3	mg/kg	10	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 0.93	0.93	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164
- (2) Instrument QC Batch: MA171
- (3) Instrument QC Batch: MA173
- (4) Prep QC Batch: MP301
- (5) Prep QC Batch: MP313

(a) All results reported on a wet weight basis.

RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-5-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-5	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K003802.D	1	02/09/15	NN	n/a	n/a	V1K72
Run #2							

	<b>Initial Weight</b>
Run #1	5.2 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	ND	0.048	mg/kg	
71-43-2	Benzene	ND	0.00048	mg/kg	
75-27-4	Bromodichloromethane	ND	0.00097	mg/kg	
75-25-2	Bromoform	ND	0.00097	mg/kg	
75-15-0	Carbon Disulfide	ND	0.00097	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.00097	mg/kg	
108-90-7	Chlorobenzene	ND	0.00097	mg/kg	
75-00-3	Chloroethane	ND	0.00097	mg/kg	
67-66-3	Chloroform	ND	0.00048	mg/kg	
124-48-1	Dibromochloromethane	ND	0.00097	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0048	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.00097	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.00097	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.00097	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.00097	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.00097	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.00097	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00048	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00048	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.00097	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.00097	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.00097	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.00097	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.00097	mg/kg	
100-41-4	Ethylbenzene	ND	0.00097	mg/kg	
67-72-1	Hexachloroethane	ND	0.0048	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.097	mg/kg	
74-83-9	Methyl Bromide	ND	0.0097	mg/kg	
74-87-3	Methyl Chloride	ND	0.0048	mg/kg	
75-09-2	Methylene Chloride	ND	0.0048	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.012	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.012	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-5-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-5	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.00097	mg/kg	
100-42-5	Styrene	ND	0.00097	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.00097	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00048	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.00097	mg/kg	
108-88-3	Toluene	ND	0.00048	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00048	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00048	mg/kg	
79-01-6	Trichloroethylene	ND	0.00048	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00048	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00048	mg/kg	
	m,p-Xylene	ND	0.0019	mg/kg	
95-47-6	o-Xylene	ND	0.00097	mg/kg	
1330-20-7	Xylene (total)	ND	0.0048	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	117%		59-143%
2037-26-5	Toluene-D8	99%		52-159%
460-00-4	4-Bromofluorobenzene	98%		38-183%

(a) All results reported on a wet weight basis.

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J = Indicates an estimated value

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N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-5-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-5	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002348.D	1	02/09/15	HL	02/09/15	OP343	EC303
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.3 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.65	mg/kg	
100-02-7	4-Nitrophenol	ND	0.65	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.0099	mg/kg	
208-96-8	Acenaphthylene	ND	0.0099	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.0099	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.0099	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.0099	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.0099	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.0099	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.0099	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0099	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-5-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-5	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.0099	mg/kg	
86-73-7	Fluorene	ND	0.0099	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.65	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0099	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.0099	mg/kg	
91-20-3	Naphthalene	ND	0.0099	mg/kg	
88-74-4	2-Nitroaniline	ND	0.65	mg/kg	
99-09-2	3-Nitroaniline	ND	0.65	mg/kg	
100-01-6	4-Nitroaniline	ND	0.65	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.0099	mg/kg	
129-00-0	Pyrene	ND	0.0099	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	64%		15-133%
4165-62-2	Phenol-d5	66%		21-127%
118-79-6	2,4,6-Tribromophenol	75%		7-142%
4165-60-0	Nitrobenzene-d5	69%		43-128%
321-60-8	2-Fluorobiphenyl	72%		47-126%
1718-51-0	Terphenyl-d14	80%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-5-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-5	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	10.2	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	34.2	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	9.4	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	14.7	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium	< 10	10	mg/kg	10	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164  
 (2) Instrument QC Batch: MA171  
 (3) Instrument QC Batch: MA173  
 (4) Prep QC Batch: MP301  
 (5) Prep QC Batch: MP313

(a) All results reported on a wet weight basis.

RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-6-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-6	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K003803.D	1	02/09/15	NN	n/a	n/a	V1K72
Run #2							

	<b>Initial Weight</b>
Run #1	5.1 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	ND	0.050	mg/kg	
71-43-2	Benzene	ND	0.00050	mg/kg	
75-27-4	Bromodichloromethane	ND	0.00099	mg/kg	
75-25-2	Bromoform	ND	0.00099	mg/kg	
75-15-0	Carbon Disulfide	ND	0.00099	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.00099	mg/kg	
108-90-7	Chlorobenzene	ND	0.00099	mg/kg	
75-00-3	Chloroethane	ND	0.00099	mg/kg	
67-66-3	Chloroform	ND	0.00050	mg/kg	
124-48-1	Dibromochloromethane	ND	0.00099	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0050	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.00099	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.00099	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.00099	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.00099	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.00099	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.00099	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00050	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00050	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.00099	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.00099	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.00099	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.00099	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.00099	mg/kg	
100-41-4	Ethylbenzene	ND	0.00099	mg/kg	
67-72-1	Hexachloroethane	ND	0.0050	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.099	mg/kg	
74-83-9	Methyl Bromide	ND	0.0099	mg/kg	
74-87-3	Methyl Chloride	ND	0.0050	mg/kg	
75-09-2	Methylene Chloride	ND	0.0050	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.012	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.012	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-6-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-6	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.00099	mg/kg	
100-42-5	Styrene	ND	0.00099	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.00099	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.00099	mg/kg	
108-88-3	Toluene	ND	0.00050	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00050	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00050	mg/kg	
79-01-6	Trichloroethylene	ND	0.00050	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00050	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00050	mg/kg	
	m,p-Xylene	ND	0.0020	mg/kg	
95-47-6	o-Xylene	ND	0.00099	mg/kg	
1330-20-7	Xylene (total)	ND	0.0050	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	104%		59-143%
2037-26-5	Toluene-D8	99%		52-159%
460-00-4	4-Bromofluorobenzene	96%		38-183%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

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N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-6-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-6	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002373.D	1	02/11/15	HL	02/09/15	OP343	EC304
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.2 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.65	mg/kg	
100-02-7	4-Nitrophenol	ND	0.65	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.0099	mg/kg	
208-96-8	Acenaphthylene	ND	0.0099	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.0099	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.0099	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.0099	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.0099	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.0099	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.0099	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0099	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

ND = Not detected

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J = Indicates an estimated value

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N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-6-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-6	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.0099	mg/kg	
86-73-7	Fluorene	ND	0.0099	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.65	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0099	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.0099	mg/kg	
91-20-3	Naphthalene	ND	0.0099	mg/kg	
88-74-4	2-Nitroaniline	ND	0.65	mg/kg	
99-09-2	3-Nitroaniline	ND	0.65	mg/kg	
100-01-6	4-Nitroaniline	ND	0.65	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.0099	mg/kg	
129-00-0	Pyrene	ND	0.0099	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		15-133%
4165-62-2	Phenol-d5	63%		21-127%
118-79-6	2,4,6-Tribromophenol	77%		7-142%
4165-60-0	Nitrobenzene-d5	66%		43-128%
321-60-8	2-Fluorobiphenyl	74%		47-126%
1718-51-0	Terphenyl-d14	82%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

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E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-6-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-6	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.5	0.98	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	22.2	0.98	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 0.98	0.98	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	12.0	0.98	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	9.7	0.98	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium <sup>b</sup>	< 98	98	mg/kg	100	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 0.98	0.98	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164  
 (2) Instrument QC Batch: MA171  
 (3) Instrument QC Batch: MA174  
 (4) Prep QC Batch: MP301  
 (5) Prep QC Batch: MP313

- (a) All results reported on a wet weight basis.  
 (b) Elevated reporting limit due to dilution required for matrix interference.

RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-7-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-7	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K003804.D	1	02/09/15	NN	n/a	n/a	V1K72
Run #2							

	<b>Initial Weight</b>
Run #1	5.3 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	ND	0.047	mg/kg	
71-43-2	Benzene	ND	0.00047	mg/kg	
75-27-4	Bromodichloromethane	ND	0.00095	mg/kg	
75-25-2	Bromoform	ND	0.00095	mg/kg	
75-15-0	Carbon Disulfide	ND	0.00095	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.00095	mg/kg	
108-90-7	Chlorobenzene	ND	0.00095	mg/kg	
75-00-3	Chloroethane	ND	0.00095	mg/kg	
67-66-3	Chloroform	ND	0.00047	mg/kg	
124-48-1	Dibromochloromethane	ND	0.00095	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0047	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.00095	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.00095	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.00095	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.00095	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.00095	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.00095	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00047	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00047	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.00095	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.00095	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.00095	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.00095	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.00095	mg/kg	
100-41-4	Ethylbenzene	ND	0.00095	mg/kg	
67-72-1	Hexachloroethane	ND	0.0047	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.095	mg/kg	
74-83-9	Methyl Bromide	ND	0.0095	mg/kg	
74-87-3	Methyl Chloride	ND	0.0047	mg/kg	
75-09-2	Methylene Chloride	ND	0.0047	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.012	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.012	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-7-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-7	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.00095	mg/kg	
100-42-5	Styrene	ND	0.00095	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.00095	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00047	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.00095	mg/kg	
108-88-3	Toluene	ND	0.00047	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00047	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00047	mg/kg	
79-01-6	Trichloroethylene	ND	0.00047	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00047	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00047	mg/kg	
	m,p-Xylene	ND	0.0019	mg/kg	
95-47-6	o-Xylene	ND	0.00095	mg/kg	
1330-20-7	Xylene (total)	ND	0.0047	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	118%		59-143%
2037-26-5	Toluene-D8	99%		52-159%
460-00-4	4-Bromofluorobenzene	99%		38-183%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-7-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-7	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002374.D	1	02/11/15	HL	02/09/15	OP343	EC304
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.4 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.65	mg/kg	
100-02-7	4-Nitrophenol	ND	0.65	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.0098	mg/kg	
208-96-8	Acenaphthylene	ND	0.0098	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.0098	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.0098	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.0098	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.0098	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.0098	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.0098	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0098	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

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J = Indicates an estimated value

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**Report of Analysis**

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<b>Client Sample ID:</b>	P-7-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-7	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.0098	mg/kg	
86-73-7	Fluorene	ND	0.0098	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.65	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0098	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.0098	mg/kg	
91-20-3	Naphthalene	ND	0.0098	mg/kg	
88-74-4	2-Nitroaniline	ND	0.65	mg/kg	
99-09-2	3-Nitroaniline	ND	0.65	mg/kg	
100-01-6	4-Nitroaniline	ND	0.65	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.0098	mg/kg	
129-00-0	Pyrene	ND	0.0098	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%		15-133%
4165-62-2	Phenol-d5	53%		21-127%
118-79-6	2,4,6-Tribromophenol	65%		7-142%
4165-60-0	Nitrobenzene-d5	55%		43-128%
321-60-8	2-Fluorobiphenyl	60%		47-126%
1718-51-0	Terphenyl-d14	68%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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3

<b>Client Sample ID:</b>	P-7-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-7	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	17.4	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	55.6	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	15.1	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.4	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium	< 10	10	mg/kg	10	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164
- (2) Instrument QC Batch: MA171
- (3) Instrument QC Batch: MA173
- (4) Prep QC Batch: MP301
- (5) Prep QC Batch: MP313

(a) All results reported on a wet weight basis.

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RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-9	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-8	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K004197.D	1	02/17/15	SV	n/a	n/a	V1K80
Run #2							

	<b>Initial Weight</b>
Run #1	4.3 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	0.0809	0.058	mg/kg	
71-43-2	Benzene	ND	0.00058	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0012	mg/kg	
75-25-2	Bromoform	ND	0.0012	mg/kg	
75-15-0	Carbon Disulfide	0.0044	0.0012	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.0012	mg/kg	
108-90-7	Chlorobenzene	ND	0.0012	mg/kg	
75-00-3	Chloroethane	ND	0.0012	mg/kg	
67-66-3	Chloroform	ND	0.00058	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0012	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0058	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0012	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0012	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0012	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0012	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0012	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0012	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00058	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00058	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.0012	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0012	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0012	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0012	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.0012	mg/kg	
100-41-4	Ethylbenzene	ND	0.0012	mg/kg	
67-72-1	Hexachloroethane	ND	0.0058	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.12	mg/kg	
74-83-9	Methyl Bromide	ND	0.012	mg/kg	
74-87-3	Methyl Chloride	ND	0.0058	mg/kg	
75-09-2	Methylene Chloride	ND	0.0058	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.014	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.014	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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3

<b>Client Sample ID:</b>	P-2-9	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-8	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0012	mg/kg	
100-42-5	Styrene	ND	0.0012	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0012	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00058	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0012	mg/kg	
108-88-3	Toluene	ND	0.00058	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00058	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00058	mg/kg	
79-01-6	Trichloroethylene	ND	0.00058	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00058	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00058	mg/kg	
	m,p-Xylene	ND	0.0023	mg/kg	
95-47-6	o-Xylene	ND	0.0012	mg/kg	
1330-20-7	Xylene (total)	ND	0.0058	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	114%		59-143%
2037-26-5	Toluene-D8	99%		52-159%
460-00-4	4-Bromofluorobenzene	99%		38-183%

(a) All results reported on a wet weight basis.

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J = Indicates an estimated value

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N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-9	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-8	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002375.D	1	02/11/15	HL	02/09/15	OP343	EC304
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.5 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.64	mg/kg	
100-02-7	4-Nitrophenol	ND	0.64	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.0098	mg/kg	
208-96-8	Acenaphthylene	ND	0.0098	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.0098	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.0098	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.0098	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.0098	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.0098	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.0098	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0098	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

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J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-9	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-8	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.0098	mg/kg	
86-73-7	Fluorene	ND	0.0098	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.64	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0098	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.0098	mg/kg	
91-20-3	Naphthalene	ND	0.0098	mg/kg	
88-74-4	2-Nitroaniline	ND	0.64	mg/kg	
99-09-2	3-Nitroaniline	ND	0.64	mg/kg	
100-01-6	4-Nitroaniline	ND	0.64	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.0098	mg/kg	
129-00-0	Pyrene	ND	0.0098	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		15-133%
4165-62-2	Phenol-d5	62%		21-127%
118-79-6	2,4,6-Tribromophenol	67%		7-142%
4165-60-0	Nitrobenzene-d5	63%		43-128%
321-60-8	2-Fluorobiphenyl	66%		47-126%
1718-51-0	Terphenyl-d14	69%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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3.8  
3

<b>Client Sample ID:</b>	P-2-9	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-8	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.5	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	31.8	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	5.9	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	11.5	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium <sup>b</sup>	< 100	100	mg/kg	100	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164  
 (2) Instrument QC Batch: MA171  
 (3) Instrument QC Batch: MA174  
 (4) Prep QC Batch: MP301  
 (5) Prep QC Batch: MP313

- (a) All results reported on a wet weight basis.  
 (b) Elevated reporting limit due to dilution required for matrix interference.

RL = Reporting Limit



## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



# CHAIN OF CUSTODY

Accutest Gulf Coast  
500 Ambassador Caffery Pkwy, Scott, LA 70583  
TEL.337-237-4775 FAX: 337-237-7838  
www.accutest.com

LSR-F005.00

PAGE 1 OF 1

FED-EX Tracking #	Bottle Order Control #
Accutest Job #	LA 3263
Requested Analyses	
Matrix Codes	
DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
LAB USE ONLY	

Client / Reporting Information		Project Information		Collection																
Company Name <i>PPM Consultants</i>	Project Name: <i>City of Ruston Former Landfill</i>	Street Address <i>1600 Laundry Lane</i>	Street	Billing Information (if different from Report to)																
City <i>Monroe, LA</i>	State <i>LA</i>	City <i>Ruston, LA</i>	State	Company Name																
Project Contact <i>Chesbury Reed</i>	E-mail	Project # <i>113007</i>	Project Manager <i>Chesbury Reed</i>	Street Address																
Phone # <i>(318) 323-7270</i>	Fax #	Client Purchase Order #	City	State	Zip															
Sampler(s) Name(s) <i>Bobby Grambl Hill</i>	Phone #	Attention:																		
Field ID / Point of Collection		Date	Time	Sampled By	Matrix	# of bottles	HG	NaOH	Zn/NH4	HgCO	HgSO4	Di Water	TSP	NaHSO4	ENONE	OTHER	VOCs	SVOCS	RCRA Materials	
1	P-1-10	2/13	1160	BGII	SO	1	3	2	2											7
2	P-2-10	2/13	1230				3	2	2											7
3	P-3-10	2/13	1445				3	2	2											7
4	P-4-10	2/13	1640				3	2	2											7
5	P-5-10	2/14	1128				3	2	2											7
6	P-6-10	2/14	1225				3	2	2											7
7	P-7-10	2/14	1317				3	2	2											7
8	P-2-9	2/13	1225				3	2	2											7
Turnaround Time (Business days)		Data Deliverable Information												Comments / Special Instructions						
<input checked="" type="checkbox"/> Standard	Approved By (Accutest PM): / Date:			<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> TRRP <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> EDD Format <input type="checkbox"/> FULT1 (Level 3+4) <input type="checkbox"/> Other _____ <input type="checkbox"/> REDT1 (Level 3+4) <input type="checkbox"/> Commercial "C"						RWA 10 (VS) RWA 9 (3w)										
<input type="checkbox"/> 5 Day RUSH										RWA 10 (VS) RWA 9 (3w)										
<input type="checkbox"/> 4 Day RUSH										RWA 10 (VS) RWA 9 (3w)										
<input type="checkbox"/> 3 Day RUSH										RWA 10 (VS) RWA 9 (3w)										
<input type="checkbox"/> 2 Day RUSH										RWA 10 (VS) RWA 9 (3w)										
<input type="checkbox"/> 1 Day EMERGENCY										RWA 10 (VS) RWA 9 (3w)										
Emergency & Rush T/A data available VIA Lablink																				
Sample Custody must be documented below each time samples change possession, including courier delivery.																				
Relinquished by Sampler: <i>1</i>	Date/Time: <i>2/16 1200</i>	Received By: <i>1</i>	Received Date/Time: <i>2/16/15 12:35</i>	Relinquished By: <i>2</i>	Date/Time: <i>2/16/15 11:20</i>	Received By: <i>2</i>														
Relinquished by Sampler: <i>3</i>	Date/Time:	Received By: <i>3</i>	Received Date/Time: <i>2/16/15 12:35</i>	Relinquished By: <i>4</i>	Date/Time:	Received By: <i>4</i>														
Relinquished by: <i>5</i>	Date/Time:	Received By: <i>5</i>	Custody Seal # <i>Concussion</i>	<input type="checkbox"/> Intact <input type="checkbox"/> Not intact	Preserved where applicable	On Ice <i>400W U260</i>	Cooler Temp. <i>400W U260</i>													

LA3263: Chain of Custody

Page 1 of 2



## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: LA3263

Client: PPM

Project: CITY OF RUSTON

Date / Time Received: 2/6/2015 4:20:00 PM

Delivery Method: Accutest Courier

Airbill #'s:

Cooler Temps (Initial/Adjusted): #1: (4/3.9):

**Cooler Security**      Y or N

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Cooler Temperature**      Y or N

- |                            |                                     |                          |
|----------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Thermometer ID:         | DV260;                              |                          |
| 3. Cooler media:           | Ice (direct contact)                |                          |
| 4. No. Coolers:            | 1                                   |                          |

**Quality Control Preservation**      Y or N      N/A

- |                                 |                                     |                          |                                     |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 4. VOCs headspace free:         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Sample Integrity - Documentation**

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Sample Integrity - Condition**

- |                                  |                                     |                          |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |                          |

**Sample Integrity - Instructions**

- |   |                                     |                                     |
|---|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            |

Y or N

N/A

Comments

Accutest Laboratories  
V:(800) 304-5227

500 Ambassador Caffery Parkway

Scott, Louisiana 70583  
[www.accutest.com](http://www.accutest.com)

**LA3263: Chain of Custody****Page 2 of 2**

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## GC/MS Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K72-MB1	1K003795.D	1	02/09/15	NN	n/a	n/a	V1K72

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-4, LA3263-5, LA3263-6, LA3263-7

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/kg	
71-43-2	Benzene	ND	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	1.0	ug/kg	
75-25-2	Bromoform	ND	1.0	ug/kg	
75-15-0	Carbon Disulfide	ND	1.0	ug/kg	
56-23-5	Carbon Tetrachloride	ND	1.0	ug/kg	
108-90-7	Chlorobenzene	ND	1.0	ug/kg	
75-00-3	Chloroethane	ND	1.0	ug/kg	
67-66-3	Chloroform	ND	0.50	ug/kg	
124-48-1	Dibromochloromethane	ND	1.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/kg	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/kg	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/kg	
542-75-6	1,3-Dichloropropene (total)	ND	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	ug/kg	
67-72-1	Hexachloroethane	ND	5.0	ug/kg	
78-83-1	Isobutyl alcohol	ND	100	ug/kg	
74-83-9	Methyl Bromide	ND	10	ug/kg	
74-87-3	Methyl Chloride	ND	5.0	ug/kg	
75-09-2	Methylene Chloride	ND	5.0	ug/kg	
78-93-3	Methyl Ethyl Ketone	ND	13	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	13	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/kg	
100-42-5	Styrene	ND	1.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/kg	

5.1.1  
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## Method Blank Summary

Page 2 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K72-MB1	1K003795.D	1	02/09/15	NN	n/a	n/a	V1K72

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-4, LA3263-5, LA3263-6, LA3263-7

CAS No.	Compound	Result	RL	Units	Q
127-18-4	Tetrachloroethylene	ND	1.0	ug/kg	
108-88-3	Toluene	ND	0.50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/kg	
79-01-6	Trichloroethylene	ND	0.50	ug/kg	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/kg	
75-01-4	Vinyl Chloride	ND	0.50	ug/kg	
	m,p-Xylene	ND	2.0	ug/kg	
95-47-6	o-Xylene	ND	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	5.0	ug/kg	

### CAS No. Surrogate Recoveries

### Limits

17060-07-0	1,2-Dichloroethane-D4	105%	59-143%
2037-26-5	Toluene-D8	101%	52-159%
460-00-4	4-Bromofluorobenzene	99%	38-183%

5.1.1  
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**Method Blank Summary**

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K78-MB2	1K004023.D	1	02/13/15	SV	n/a	n/a	V1K78

The QC reported here applies to the following samples:

**Method:** SW846 8260B

LA3263-1

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	6.1	50	ug/kg	J
71-43-2	Benzene	ND	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	1.0	ug/kg	
75-25-2	Bromoform	ND	1.0	ug/kg	
75-15-0	Carbon Disulfide	ND	1.0	ug/kg	
56-23-5	Carbon Tetrachloride	ND	1.0	ug/kg	
108-90-7	Chlorobenzene	ND	1.0	ug/kg	
75-00-3	Chloroethane	ND	1.0	ug/kg	
67-66-3	Chloroform	ND	0.50	ug/kg	
124-48-1	Dibromochloromethane	ND	1.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/kg	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/kg	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/kg	
542-75-6	1,3-Dichloropropene (total)	ND	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	ug/kg	
67-72-1	Hexachloroethane	ND	5.0	ug/kg	
78-83-1	Isobutyl alcohol	ND	100	ug/kg	
74-83-9	Methyl Bromide	ND	10	ug/kg	
74-87-3	Methyl Chloride	ND	5.0	ug/kg	
75-09-2	Methylene Chloride	ND	5.0	ug/kg	
78-93-3	Methyl Ethyl Ketone	ND	13	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	13	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/kg	
100-42-5	Styrene	ND	1.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/kg	

## Method Blank Summary

Page 2 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K78-MB2	1K004023.D	1	02/13/15	SV	n/a	n/a	V1K78

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-1

CAS No.	Compound	Result	RL	Units	Q
127-18-4	Tetrachloroethylene	ND	1.0	ug/kg	
108-88-3	Toluene	ND	0.50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/kg	
79-01-6	Trichloroethylene	ND	0.50	ug/kg	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/kg	
75-01-4	Vinyl Chloride	ND	0.50	ug/kg	
	m,p-Xylene	ND	2.0	ug/kg	
95-47-6	o-Xylene	ND	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	5.0	ug/kg	

### CAS No. Surrogate Recoveries

### Limits

17060-07-0	1,2-Dichloroethane-D4	106%	59-143%
2037-26-5	Toluene-D8	99%	52-159%
460-00-4	4-Bromofluorobenzene	101%	38-183%

## Method Blank Summary

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Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K80-MB1	1K004193.D	1	02/17/15	SV	n/a	n/a	V1K80

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-2, LA3263-3, LA3263-8

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	5.5	50	ug/kg	J
71-43-2	Benzene	ND	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	1.0	ug/kg	
75-25-2	Bromoform	ND	1.0	ug/kg	
75-15-0	Carbon Disulfide	ND	1.0	ug/kg	
56-23-5	Carbon Tetrachloride	ND	1.0	ug/kg	
108-90-7	Chlorobenzene	ND	1.0	ug/kg	
75-00-3	Chloroethane	ND	1.0	ug/kg	
67-66-3	Chloroform	ND	0.50	ug/kg	
124-48-1	Dibromochloromethane	ND	1.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/kg	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/kg	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/kg	
542-75-6	1,3-Dichloropropene (total)	ND	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	ug/kg	
67-72-1	Hexachloroethane	ND	5.0	ug/kg	
78-83-1	Isobutyl alcohol	ND	100	ug/kg	
74-83-9	Methyl Bromide	ND	10	ug/kg	
74-87-3	Methyl Chloride	ND	5.0	ug/kg	
75-09-2	Methylene Chloride	ND	5.0	ug/kg	
78-93-3	Methyl Ethyl Ketone	ND	13	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	13	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/kg	
100-42-5	Styrene	ND	1.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/kg	

5.1.3  
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## Method Blank Summary

Page 2 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K80-MB1	1K004193.D	1	02/17/15	SV	n/a	n/a	V1K80

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-2, LA3263-3, LA3263-8

CAS No.	Compound	Result	RL	Units	Q
127-18-4	Tetrachloroethylene	ND	1.0	ug/kg	
108-88-3	Toluene	ND	0.50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/kg	
79-01-6	Trichloroethylene	ND	0.50	ug/kg	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/kg	
75-01-4	Vinyl Chloride	ND	0.50	ug/kg	
	m,p-Xylene	ND	2.0	ug/kg	
95-47-6	o-Xylene	ND	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	5.0	ug/kg	

### CAS No. Surrogate Recoveries

### Limits

17060-07-0	1,2-Dichloroethane-D4	111%	59-143%
2037-26-5	Toluene-D8	100%	52-159%
460-00-4	4-Bromofluorobenzene	102%	38-183%

5.1.3  
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# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K72-BS1	1K003793.D	1	02/09/15	NN	n/a	n/a	V1K72
V1K72-BSD1	1K003794.D	1	02/09/15	NN	n/a	n/a	V1K72

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-4, LA3263-5, LA3263-6, LA3263-7

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	62.7	125	56.6	113	10	40-153/30
71-43-2	Benzene	20	22.0	110	21.4	107	3	67-135/30
75-27-4	Bromodichloromethane	20	20.8	104	19.5	98	6	54-146/30
75-25-2	Bromoform	20	21.0	105	19.5	98	7	49-145/30
75-15-0	Carbon Disulfide	20	21.1	106	20.9	105	1	48-153/30
56-23-5	Carbon Tetrachloride	20	20.4	102	19.8	99	3	50-152/30
108-90-7	Chlorobenzene	20	20.9	105	20.1	101	4	57-144/30
75-00-3	Chloroethane	20	21.2	106	20.7	104	2	38-176/30
67-66-3	Chloroform	20	19.8	99	19.9	100	1	53-147/30
124-48-1	Dibromochloromethane	20	21.5	108	21.0	105	2	54-146/30
96-12-8	1,2-Dibromo-3-chloropropane	20	20.6	103	18.3	92	12	51-145/30
541-73-1	m-Dichlorobenzene	20	22.3	112	20.8	104	7	54-147/30
95-50-1	o-Dichlorobenzene	20	21.4	107	20.0	100	7	55-144/30
106-46-7	p-Dichlorobenzene	20	21.8	109	20.4	102	7	54-147/30
75-34-3	1,1-Dichloroethane	20	21.0	105	21.1	106	0	53-148/30
107-06-2	1,2-Dichloroethane	20	21.5	108	20.4	102	5	55-144/30
75-35-4	1,1-Dichloroethylene	20	19.8	99	19.9	100	1	49-153/30
156-59-2	cis-1,2-Dichloroethylene	20	20.9	105	20.2	101	3	52-147/30
156-60-5	trans-1,2-Dichloroethylene	20	21.0	105	21.0	105	0	51-152/30
540-59-0	1,2-Dichloroethene (total)	40	41.9	105	41.2	103	2	52-149/30
78-87-5	1,2-Dichloropropane	20	21.8	109	20.6	103	6	56-145/30
10061-01-5	cis-1,3-Dichloropropene	20	21.4	107	20.7	104	3	54-148/30
10061-02-6	trans-1,3-Dichloropropene	20	22.3	112	21.4	107	4	53-151/30
542-75-6	1,3-Dichloropropene (total)	40	43.7	109	42.1	105	4	50-150/30 <sup>a</sup>
100-41-4	Ethylbenzene	20	21.2	106	20.1	101	5	69-136/30
67-72-1	Hexachloroethane	20	20.1	101	18.4	92	9	46-150/30
78-83-1	Isobutyl alcohol	200	223	112	210	105	6	37-154/30
74-83-9	Methyl Bromide	20	27.7	139	25.6	128	8	40-170/30
74-87-3	Methyl Chloride	20	19.6	98	19.5	98	1	39-152/30
75-09-2	Methylene Chloride	20	20.4	102	19.9	100	2	51-142/30
78-93-3	Methyl Ethyl Ketone	50	53.3	107	50.4	101	6	48-150/30
108-10-1	4-Methyl-2-pentanone	50	55.6	111	49.3	99	12	50-151/30
1634-04-4	Methyl Tert Butyl Ether	20	21.2	106	20.3	102	4	61-142/30
100-42-5	Styrene	20	22.1	111	21.1	106	5	56-145/30
630-20-6	1,1,1,2-Tetrachloroethane	20	21.3	107	19.7	99	8	56-147/30
79-34-5	1,1,2,2-Tetrachloroethane	20	20.2	101	19.4	97	4	55-141/30

\* = Outside of Control Limits.

5.2.1  
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## Blank Spike/Blank Spike Duplicate Summary

Page 2 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K72-BS1	1K003793.D	1	02/09/15	NN	n/a	n/a	V1K72
V1K72-BSD1	1K003794.D	1	02/09/15	NN	n/a	n/a	V1K72

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-4, LA3263-5, LA3263-6, LA3263-7

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethylene	20	20.5	103	20.0	100	2	54-156/30
108-88-3	Toluene	20	20.8	104	20.2	101	3	71-135/30
71-55-6	1,1,1-Trichloroethane	20	20.9	105	21.3	107	2	52-153/30
79-00-5	1,1,2-Trichloroethane	20	20.6	103	20.8	104	1	55-144/30
79-01-6	Trichloroethylene	20	20.9	105	20.9	105	0	56-151/30
75-69-4	Trichlorofluoromethane	20	18.7	94	18.6	93	1	36-171/30
75-01-4	Vinyl Chloride	20	20.1	101	19.6	98	3	42-155/30
	m,p-Xylene	40	43.3	108	41.5	104	4	70-140/30
95-47-6	o-Xylene	20	22.0	110	21.0	105	5	70-132/30
1330-20-7	Xylene (total)	60	65.2	109	62.4	104	4	69-138/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
17060-07-0	1,2-Dichloroethane-D4	94%	95%	59-143%
2037-26-5	Toluene-D8	100%	101%	52-159%
460-00-4	4-Bromofluorobenzene	101%	99%	38-183%

(a) Advisory control limits.

\* = Outside of Control Limits.

5.2.1  
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# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K78-BS2	1K004021.D	1	02/13/15	SV	n/a	n/a	V1K78
V1K78-BSD2	1K004022.D	1	02/13/15	SV	n/a	n/a	V1K78

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	56.6	113	50.8	102	11	40-153/30
71-43-2	Benzene	20	20.4	102	19.7	99	3	67-135/30
75-27-4	Bromodichloromethane	20	20.1	101	19.3	97	4	54-146/30
75-25-2	Bromoform	20	19.7	99	18.7	94	5	49-145/30
75-15-0	Carbon Disulfide	20	20.4	102	20.1	101	1	48-153/30
56-23-5	Carbon Tetrachloride	20	19.1	96	19.6	98	3	50-152/30
108-90-7	Chlorobenzene	20	19.7	99	19.2	96	3	57-144/30
75-00-3	Chloroethane	20	21.8	109	21.3	107	2	38-176/30
67-66-3	Chloroform	20	19.9	100	19.6	98	2	53-147/30
124-48-1	Dibromochloromethane	20	20.5	103	20.4	102	0	54-146/30
96-12-8	1,2-Dibromo-3-chloropropane	20	19.8	99	19.4	97	2	51-145/30
541-73-1	m-Dichlorobenzene	20	18.4	92	18.0	90	2	54-147/30
95-50-1	o-Dichlorobenzene	20	18.1	91	17.7	89	2	55-144/30
106-46-7	p-Dichlorobenzene	20	20.4	102	19.8	99	3	54-147/30
75-34-3	1,1-Dichloroethane	20	20.1	101	19.6	98	3	53-148/30
107-06-2	1,2-Dichloroethane	20	20.6	103	20.2	101	2	55-144/30
75-35-4	1,1-Dichloroethylene	20	19.9	100	20.2	101	1	49-153/30
156-59-2	cis-1,2-Dichloroethylene	20	20.0	100	20.0	100	0	52-147/30
156-60-5	trans-1,2-Dichloroethylene	20	20.1	101	20.3	102	1	51-152/30
540-59-0	1,2-Dichloroethene (total)	40	40.2	101	40.3	101	0	52-149/30
78-87-5	1,2-Dichloropropane	20	20.6	103	20.8	104	1	56-145/30
10061-01-5	cis-1,3-Dichloropropene	20	20.2	101	19.5	98	4	54-148/30
10061-02-6	trans-1,3-Dichloropropene	20	20.0	100	19.7	99	2	53-151/30
542-75-6	1,3-Dichloropropene (total)	40	40.2	101	39.1	98	3	50-150/30 <sup>a</sup>
100-41-4	Ethylbenzene	20	19.1	96	18.9	95	1	69-136/30
67-72-1	Hexachloroethane	20	18.0	90	18.3	92	2	46-150/30
78-83-1	Isobutyl alcohol	200	185	93	175	88	6	37-154/30
74-83-9	Methyl Bromide	20	21.6	108	22.3	112	3	40-170/30
74-87-3	Methyl Chloride	20	22.2	111	23.1	116	4	39-152/30
75-09-2	Methylene Chloride	20	22.1	111	21.3	107	4	51-142/30
78-93-3	Methyl Ethyl Ketone	50	52.6	105	52.5	105	0	48-150/30
108-10-1	4-Methyl-2-pentanone	50	52.3	105	49.9	100	5	50-151/30
1634-04-4	Methyl Tert Butyl Ether	20	21.4	107	20.8	104	3	61-142/30
100-42-5	Styrene	20	20.5	103	19.7	99	4	56-145/30
630-20-6	1,1,1,2-Tetrachloroethane	20	20.5	103	19.9	100	3	56-147/30
79-34-5	1,1,2,2-Tetrachloroethane	20	20.7	104	20.5	103	1	55-141/30

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 2 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K78-BS2	1K004021.D	1	02/13/15	SV	n/a	n/a	V1K78
V1K78-BSD2	1K004022.D	1	02/13/15	SV	n/a	n/a	V1K78

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethylene	20	18.2	91	17.7	89	3	54-156/30
108-88-3	Toluene	20	19.2	96	18.5	93	4	71-135/30
71-55-6	1,1,1-Trichloroethane	20	20.5	103	19.8	99	3	52-153/30
79-00-5	1,1,2-Trichloroethane	20	19.9	100	19.7	99	1	55-144/30
79-01-6	Trichloroethylene	20	19.0	95	18.3	92	4	56-151/30
75-69-4	Trichlorofluoromethane	20	20.9	105	20.6	103	1	36-171/30
75-01-4	Vinyl Chloride	20	20.6	103	20.2	101	2	42-155/30
	m,p-Xylene	40	39.9	100	39.3	98	2	70-140/30
95-47-6	o-Xylene	20	19.5	98	19.2	96	2	70-132/30
1330-20-7	Xylene (total)	60	59.5	99	58.5	98	2	69-138/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
17060-07-0	1,2-Dichloroethane-D4	99%	98%	59-143%
2037-26-5	Toluene-D8	101%	99%	52-159%
460-00-4	4-Bromofluorobenzene	101%	103%	38-183%

(a) Advisory control limits.

\* = Outside of Control Limits.

5.2.2  
5

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K80-BS1	1K004191.D	1	02/17/15	SV	n/a	n/a	V1K80
V1K80-BSD1	1K004192.D	1	02/17/15	SV	n/a	n/a	V1K80

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-2, LA3263-3, LA3263-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	58.8	118	54.0	108	9	40-153/30
71-43-2	Benzene	20	21.2	106	19.0	95	11	67-135/30
75-27-4	Bromodichloromethane	20	21.0	105	19.1	96	9	54-146/30
75-25-2	Bromoform	20	20.7	104	19.0	95	9	49-145/30
75-15-0	Carbon Disulfide	20	20.7	104	19.1	96	8	48-153/30
56-23-5	Carbon Tetrachloride	20	20.9	105	18.1	91	14	50-152/30
108-90-7	Chlorobenzene	20	19.1	96	17.4	87	9	57-144/30
75-00-3	Chloroethane	20	22.1	111	20.0	100	10	38-176/30
67-66-3	Chloroform	20	21.5	108	19.8	99	8	53-147/30
124-48-1	Dibromochloromethane	20	21.7	109	19.7	99	10	54-146/30
96-12-8	1,2-Dibromo-3-chloropropane	20	20.8	104	20.0	100	4	51-145/30
541-73-1	m-Dichlorobenzene	20	20.2	101	18.6	93	8	54-147/30
95-50-1	o-Dichlorobenzene	20	20.5	103	18.9	95	8	55-144/30
106-46-7	p-Dichlorobenzene	20	20.1	101	18.2	91	10	54-147/30
75-34-3	1,1-Dichloroethane	20	22.2	111	20.0	100	10	53-148/30
107-06-2	1,2-Dichloroethane	20	21.2	106	18.9	95	11	55-144/30
75-35-4	1,1-Dichloroethylene	20	21.5	108	19.6	98	9	49-153/30
156-59-2	cis-1,2-Dichloroethylene	20	21.4	107	19.1	96	11	52-147/30
156-60-5	trans-1,2-Dichloroethylene	20	21.2	106	19.3	97	9	51-152/30
540-59-0	1,2-Dichloroethene (total)	40	42.6	107	38.4	96	10	52-149/30
78-87-5	1,2-Dichloropropane	20	22.0	110	19.7	99	11	56-145/30
10061-01-5	cis-1,3-Dichloropropene	20	21.8	109	19.1	96	13	54-148/30
10061-02-6	trans-1,3-Dichloropropene	20	21.5	108	19.8	99	8	53-151/30
542-75-6	1,3-Dichloropropene (total)	40	43.4	109	38.9	97	11	50-150/30 <sup>a</sup>
100-41-4	Ethylbenzene	20	19.5	98	17.8	89	9	69-136/30
67-72-1	Hexachloroethane	20	19.0	95	16.5	83	14	46-150/30
78-83-1	Isobutyl alcohol	200	216	108	184	92	16	37-154/30
74-83-9	Methyl Bromide	20	20.4	102	17.7	89	14	40-170/30
74-87-3	Methyl Chloride	20	20.6	103	18.6	93	10	39-152/30
75-09-2	Methylene Chloride	20	20.1	101	17.7	89	13	51-142/30
78-93-3	Methyl Ethyl Ketone	50	57.4	115	51.6	103	11	48-150/30
108-10-1	4-Methyl-2-pentanone	50	59.9	120	53.6	107	11	50-151/30
1634-04-4	Methyl Tert Butyl Ether	20	24.1	121	21.6	108	11	61-142/30
100-42-5	Styrene	20	21.5	108	19.5	98	10	56-145/30
630-20-6	1,1,1,2-Tetrachloroethane	20	20.8	104	19.4	97	7	56-147/30
79-34-5	1,1,2,2-Tetrachloroethane	20	22.8	114	20.8	104	9	55-141/30

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 2 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K80-BS1	1K004191.D	1	02/17/15	SV	n/a	n/a	V1K80
V1K80-BSD1	1K004192.D	1	02/17/15	SV	n/a	n/a	V1K80

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-2, LA3263-3, LA3263-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethylene	20	18.3	92	17.0	85	7	54-156/30
108-88-3	Toluene	20	20.9	105	19.0	95	10	71-135/30
71-55-6	1,1,1-Trichloroethane	20	21.2	106	18.8	94	12	52-153/30
79-00-5	1,1,2-Trichloroethane	20	21.1	106	19.4	97	8	55-144/30
79-01-6	Trichloroethylene	20	20.6	103	18.3	92	12	56-151/30
75-69-4	Trichlorofluoromethane	20	21.5	108	20.2	101	6	36-171/30
75-01-4	Vinyl Chloride	20	22.6	113	20.6	103	9	42-155/30
	m,p-Xylene	40	39.3	98	35.5	89	10	70-140/30
95-47-6	o-Xylene	20	20.7	104	18.5	93	11	70-132/30
1330-20-7	Xylene (total)	60	60.0	100	54.1	90	10	69-138/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
17060-07-0	1,2-Dichloroethane-D4	100%	101%	59-143%
2037-26-5	Toluene-D8	102%	102%	52-159%
460-00-4	4-Bromofluorobenzene	101%	101%	38-183%

(a) Advisory control limits.

\* = Outside of Control Limits.

5.2.3  
5



## GC/MS Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



## Method Blank Summary

Page 1 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-MB	C0002337.D	1	02/09/15	HL	02/09/15	OP343	EC303

The QC reported here applies to the following samples:

Method: SW846 8270D

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	170	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	660	ug/kg	
100-02-7	4-Nitrophenol	ND	660	ug/kg	
87-86-5	Pentachlorophenol	ND	170	ug/kg	
108-95-2	Phenol	ND	170	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	ug/kg	
83-32-9	Acenaphthene	ND	10	ug/kg	
208-96-8	Acenaphthylene	ND	10	ug/kg	
62-53-3	Aniline	ND	170	ug/kg	
120-12-7	Anthracene	ND	10	ug/kg	
56-55-3	Benzo(a)anthracene	ND	10	ug/kg	
50-32-8	Benzo(a)pyrene	ND	10	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	10	ug/kg	
92-52-4	1,1'-Biphenyl	ND	170	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	10	ug/kg	
85-68-7	Butyl Benzyl Phthalate	ND	170	ug/kg	
106-47-8	4-Chloroaniline	ND	170	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	170	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	ug/kg	
218-01-9	Chrysene	ND	10	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	10	ug/kg	
132-64-9	Dibenzofuran	ND	170	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	170	ug/kg	
84-66-2	Diethyl Phthalate	ND	170	ug/kg	
131-11-3	Dimethyl Phthalate	ND	170	ug/kg	
117-84-0	Di-n-octyl Phthalate	ND	170	ug/kg	
99-65-0	1,3-Dinitrobenzene	ND	170	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	170	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	170	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	3.6	170	ug/kg	J
206-44-0	Fluoranthene	5.9	10	ug/kg	J

## Method Blank Summary

Page 2 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-MB	C0002337.D	1	02/09/15	HL	02/09/15	OP343	EC303

The QC reported here applies to the following samples:

Method: SW846 8270D

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	Result	RL	Units	Q
86-73-7	Fluorene	ND	10	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	ug/kg	
87-68-3	Hexachlorobutadiene	ND	170	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	660	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	10	ug/kg	
78-59-1	Isophorone	ND	170	ug/kg	
91-57-6	2-Methylnaphthalene	ND	10	ug/kg	
91-20-3	Naphthalene	ND	10	ug/kg	
88-74-4	2-Nitroaniline	ND	660	ug/kg	
99-09-2	3-Nitroaniline	ND	660	ug/kg	
100-01-6	4-Nitroaniline	ND	660	ug/kg	
98-95-3	Nitrobenzene	ND	170	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	ug/kg	
85-01-8	Phenanthrene	5.9	10	ug/kg	J
129-00-0	Pyrene	4.7	10	ug/kg	J
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	170	ug/kg	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	95% 15-133%
4165-62-2	Phenol-d5	93% 21-127%
118-79-6	2,4,6-Tribromophenol	95% 7-142%
4165-60-0	Nitrobenzene-d5	99% 43-128%
321-60-8	2-Fluorobiphenyl	99% 47-126%
1718-51-0	Terphenyl-d14	100% 56-124%

**Method Blank Summary**

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-MB	C0002372.D	1	02/11/15	HL	02/09/15	OP343	EC304

**The QC reported here applies to the following samples:****Method: SW846 8270D**

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	170	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	660	ug/kg	
100-02-7	4-Nitrophenol	ND	660	ug/kg	
87-86-5	Pentachlorophenol	ND	170	ug/kg	
108-95-2	Phenol	ND	170	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	ug/kg	
83-32-9	Acenaphthene	ND	10	ug/kg	
208-96-8	Acenaphthylene	ND	10	ug/kg	
62-53-3	Aniline	ND	170	ug/kg	
120-12-7	Anthracene	ND	10	ug/kg	
56-55-3	Benzo(a)anthracene	ND	10	ug/kg	
50-32-8	Benzo(a)pyrene	ND	10	ug/kg	
205-99-2	Benzo(b)fluoranthene	3.9	10	ug/kg	J
92-52-4	1,1'-Biphenyl	ND	170	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	10	ug/kg	
85-68-7	Butyl Benzyl Phthalate	ND	170	ug/kg	
106-47-8	4-Chloroaniline	ND	170	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	170	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	ug/kg	
218-01-9	Chrysene	8.2	10	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	ND	10	ug/kg	
132-64-9	Dibenzofuran	ND	170	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	170	ug/kg	
84-66-2	Diethyl Phthalate	ND	170	ug/kg	
131-11-3	Dimethyl Phthalate	ND	170	ug/kg	
117-84-0	Di-n-octyl Phthalate	ND	170	ug/kg	
99-65-0	1,3-Dinitrobenzene	ND	170	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	170	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	170	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	3.7	170	ug/kg	J
206-44-0	Fluoranthene	5.8	10	ug/kg	J

**Method Blank Summary**

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-MB	C0002372.D	1	02/11/15	HL	02/09/15	OP343	EC304

**The QC reported here applies to the following samples:****Method: SW846 8270D**

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

6.1.2  
6

CAS No.	Compound	Result	RL	Units	Q
86-73-7	Fluorene	ND	10	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	ug/kg	
87-68-3	Hexachlorobutadiene	ND	170	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	660	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	10	ug/kg	
78-59-1	Isophorone	ND	170	ug/kg	
91-57-6	2-Methylnaphthalene	ND	10	ug/kg	
91-20-3	Naphthalene	ND	10	ug/kg	
88-74-4	2-Nitroaniline	ND	660	ug/kg	
99-09-2	3-Nitroaniline	ND	660	ug/kg	
100-01-6	4-Nitroaniline	ND	660	ug/kg	
98-95-3	Nitrobenzene	ND	170	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	ug/kg	
85-01-8	Phenanthrene	5.6	10	ug/kg	J
129-00-0	Pyrene	4.5	10	ug/kg	J
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	170	ug/kg	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	95% 15-133%
4165-62-2	Phenol-d5	93% 21-127%
118-79-6	2,4,6-Tribromophenol	94% 7-142%
4165-60-0	Nitrobenzene-d5	98% 43-128%
321-60-8	2-Fluorobiphenyl	101% 47-126%
1718-51-0	Terphenyl-d14	99% 56-124%

## Blank Spike Summary

Page 1 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-BS	C0002338.D	1	02/09/15	HL	02/09/15	OP343	EC303

The QC reported here applies to the following samples:

Method: SW846 8270D

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	2500	2260	90	64-107
120-83-2	2,4-Dichlorophenol	2500	2280	91	68-109
105-67-9	2,4-Dimethylphenol	2500	2200	88	65-107
51-28-5	2,4-Dinitrophenol	2500	1810	72	29-119
100-02-7	4-Nitrophenol	2500	2120	85	59-118
87-86-5	Pentachlorophenol	2500	2160	86	52-109
108-95-2	Phenol	2500	2280	91	60-112
58-90-2	2,3,4,6-Tetrachlorophenol	2500	2390	96	66-112
95-95-4	2,4,5-Trichlorophenol	2500	2290	92	66-113
88-06-2	2,4,6-Trichlorophenol	2500	2270	91	67-112
83-32-9	Acenaphthene	2500	2220	89	68-103
208-96-8	Acenaphthylene	2500	2240	90	66-108
62-53-3	Aniline	2500	2340	94	65-115
120-12-7	Anthracene	2500	2220	89	66-112
56-55-3	Benzo(a)anthracene	2500	2130	85	61-106
50-32-8	Benzo(a)pyrene	2500	2150	86	71-112
205-99-2	Benzo(b)fluoranthene	2500	2150	86	66-108
92-52-4	1,1'-Biphenyl	2500	2280	91	62-114
207-08-9	Benzo(k)fluoranthene	2500	2150	86	64-116
85-68-7	Butyl Benzyl Phthalate	2500	2230	89	66-119
106-47-8	4-Chloroaniline	2500	2340	94	63-109
111-44-4	bis(2-Chloroethyl)ether	2500	2340	94	62-111
108-60-1	bis(2-Chloroisopropyl)ether	2500	2240	90	64-107
91-58-7	2-Chloronaphthalene	2500	2250	90	67-103
218-01-9	Chrysene	2500	2230	89	66-106
53-70-3	Dibenzo(a,h)anthracene	2500	2110	84	49-117
132-64-9	Dibenzofuran	2500	2210	88	67-106
91-94-1	3,3'-Dichlorobenzidine	2500	2140	86	66-113
84-66-2	Diethyl Phthalate	2500	2250	90	67-111
131-11-3	Dimethyl Phthalate	2500	2230	89	68-106
117-84-0	Di-n-octyl Phthalate	2500	2170	87	62-117
99-65-0	1,3-Dinitrobenzene	2500	2380	95	65-116
121-14-2	2,4-Dinitrotoluene	2500	2360	94	64-117
606-20-2	2,6-Dinitrotoluene	2500	2190	88	69-111
117-81-7	bis(2-Ethylhexyl)phthalate	2500	2230	89	63-119
206-44-0	Fluoranthene	2500	2270	91	65-112

\* = Outside of Control Limits.

**Blank Spike Summary**

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-BS	C0002338.D	1	02/09/15	HL	02/09/15	OP343	EC303

**The QC reported here applies to the following samples:****Method:** SW846 8270D

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
86-73-7	Fluorene	2500	2210	88	67-108
118-74-1	Hexachlorobenzene	2500	2250	90	64-109
87-68-3	Hexachlorobutadiene	2500	2270	91	64-108
77-47-4	Hexachlorocyclopentadiene	2500	2130	85	49-117
193-39-5	Indeno(1,2,3-cd)pyrene	2500	2130	85	68-110
78-59-1	Isophorone	2500	2200	88	65-105
91-57-6	2-Methylnaphthalene	2500	2210	88	65-107
91-20-3	Naphthalene	2500	2240	90	64-107
88-74-4	2-Nitroaniline	2500	2360	94	65-116
99-09-2	3-Nitroaniline	2500	2130	85	69-112
100-01-6	4-Nitroaniline	2500	2130	85	61-113
98-95-3	Nitrobenzene	2500	2260	90	65-109
621-64-7	N-Nitroso-di-n-propylamine	2500	2080	83	64-112
86-30-6	N-Nitrosodiphenylamine	2500	2270	91	66-111
85-01-8	Phenanthrene	2500	2200	88	63-110
129-00-0	Pyrene	2500	2240	90	60-112
95-94-3	1,2,4,5-Tetrachlorobenzene	2500	2260	90	65-109
120-82-1	1,2,4-Trichlorobenzene	2500	2260	90	66-104

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	92%	15-133%
4165-62-2	Phenol-d5	91%	21-127%
118-79-6	2,4,6-Tribromophenol	96%	7-142%
4165-60-0	Nitrobenzene-d5	96%	43-128%
321-60-8	2-Fluorobiphenyl	96%	47-126%
1718-51-0	Terphenyl-d14	95%	56-124%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-MS	C0002341.D	1	02/09/15	HL	02/09/15	OP343	EC303
OP343-MSD	C0002342.D	1	02/09/15	HL	02/09/15	OP343	EC303
LA3246-1Q	C0002340.D	1	02/09/15	HL	02/09/15	OP343	EC303

The QC reported here applies to the following samples:

Method: SW846 8270D

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	LA3246-1Q		Spike	MS	MS	Spike	MSD	MSD	RPD	Limits Rec/RPD
		ug/kg	Q	ug/kg	ug/kg	%	ug/kg	ug/kg	%		
95-57-8	2-Chlorophenol	ND	2490	1960	79	2490	2080	84	6	32-130/67	
120-83-2	2,4-Dichlorophenol	ND	2490	1920	77	2490	2030	82	6	1-166/54	
105-67-9	2,4-Dimethylphenol	ND	2490	1870	75	2490	2000	80	7	21-135/109	
51-28-5	2,4-Dinitrophenol	ND	2490	639	26	2490	616	25	4	1-140/162	
100-02-7	4-Nitrophenol	ND	2490	1720	69	2490	1750	70	2	25-135/48	
87-86-5	Pentachlorophenol	ND	2490	1770	71	2490	1780	72	1	5-128/81	
108-95-2	Phenol	ND	2490	1960	79	2490	2060	83	5	28-128/62	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	2490	1910	77	2490	2050	82	7	31-126/56	
95-95-4	2,4,5-Trichlorophenol	ND	2490	1880	76	2490	1950	78	4	31-129/63	
88-06-2	2,4,6-Trichlorophenol	ND	2490	1870	75	2490	1990	80	6	30-132/61	
83-32-9	Acenaphthene	ND	2490	1820	73	2490	1940	78	6	36-126/46	
208-96-8	Acenaphthylene	ND	2490	1830	74	2490	1960	79	7	40-129/49	
62-53-3	Aniline	ND	2490	1950	78	2490	1980	80	2	38-133/42	
120-12-7	Anthracene	ND	2490	1810	73	2490	1890	76	4	35-133/48	
56-55-3	Benzo(a)anthracene	ND	2490	1750	70	2490	1830	74	4	31-130/53	
50-32-8	Benzo(a)pyrene	ND	2490	1730	70	2490	1850	74	7	23-144/55	
205-99-2	Benzo(b)fluoranthene	ND	2490	1710	69	2490	1810	73	6	31-133/55	
92-52-4	1,1'-Biphenyl	2.2	2490	1850	74	2490	2000	80	8	39-124/53	
207-08-9	Benzo(k)fluoranthene	ND	2490	1760	71	2490	1860	75	6	34-140/55	
85-68-7	Butyl Benzyl Phthalate	ND	2490	1810	73	2490	1910	77	5	23-146/107	
106-47-8	4-Chloroaniline	ND	2490	1920	77	2490	1680	68	13	18-135/65	
111-44-4	bis(2-Chloroethyl)ether	ND	2490	1950	78	2490	1980	80	2	25-138/71	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2490	1880	76	2490	1990	80	6	39-127/47	
91-58-7	2-Chloronaphthalene	ND	2490	1850	74	2490	1970	79	6	42-125/53	
218-01-9	Chrysene	ND	2490	1800	72	2490	1920	77	6	18-153/55	
53-70-3	Dibenzo(a,h)anthracene	ND	2490	1700	68	2490	1780	72	5	20-140/70	
132-64-9	Dibenzofuran	ND	2490	1800	72	2490	1940	78	7	34-128/51	
91-94-1	3,3'-Dichlorobenzidine	ND	2490	1730	70	2490	1330	53	26	1-153/80	
84-66-2	Diethyl Phthalate	3.9	2490	1800	72	2490	1920	77	6	31-137/57	
131-11-3	Dimethyl Phthalate	ND	2490	1800	72	2490	1900	76	5	28-138/65	
117-84-0	Di-n-octyl Phthalate	ND	2490	1750	70	2490	1850	74	6	21-145/109	
99-65-0	1,3-Dinitrobenzene	ND	2490	1930	78	2490	1970	79	2	50-125/25	
121-14-2	2,4-Dinitrotoluene	ND	2490	1920	77	2490	1990	80	4	30-136/66	
606-20-2	2,6-Dinitrotoluene	ND	2490	1800	72	2490	1910	77	6	36-131/60	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2490	1840	74	2490	1910	77	4	26-149/63	
206-44-0	Fluoranthene	3.2	2490	1830	73	2490	1900	76	4	31-132/51	

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-MS	C0002341.D	1	02/09/15	HL	02/09/15	OP343	EC303
OP343-MSD	C0002342.D	1	02/09/15	HL	02/09/15	OP343	EC303
LA3246-1Q	C0002340.D	1	02/09/15	HL	02/09/15	OP343	EC303

The QC reported here applies to the following samples:

Method: SW846 8270D

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	LA3246-1Q		Spike	MS	MS	Spike	MSD	MSD	RPD	Limits Rec/RPD
		ug/kg	Q	ug/kg	ug/kg	%	ug/kg	ug/kg	%		
86-73-7	Fluorene	ND		2490	1790	72	2490	1900	76	6	33-133/47
118-74-1	Hexachlorobenzene	ND		2490	1810	73	2490	1900	76	5	41-125/52
87-68-3	Hexachlorobutadiene	ND		2490	1930	78	2490	2060	83	7	26-135/66
77-47-4	Hexachlorocyclopentadiene	ND		2490	1240	50	2490	1180	47	5	1-149/98
193-39-5	Indeno(1,2,3-cd)pyrene	ND		2490	1710	69	2490	1800	72	5	23-136/56
78-59-1	Isophorone	ND		2490	1850	74	2490	1970	79	6	35-134/62
91-57-6	2-Methylnaphthalene	4.7		2490	1830	73	2490	1980	79	8	43-124/45
91-20-3	Naphthalene	8.3		2490	1920	77	2490	2040	82	6	44-123/47
88-74-4	2-Nitroaniline	ND		2490	1980	80	2490	2150	86	8	48-128/57
99-09-2	3-Nitroaniline	ND		2490	1730	70	2490	1240	50	33	49-127/51
100-01-6	4-Nitroaniline	ND		2490	1710	69	2490	1530	62	11	37-139/58
98-95-3	Nitrobenzene	ND		2490	1930	78	2490	2050	82	6	47-125/48
621-64-7	N-Nitroso-di-n-propylamine	ND		2490	1730	70	2490	1840	74	6	27-142/73
86-30-6	N-Nitrosodiphenylamine	ND		2490	1850	74	2490	1820	73	2	38-128/52
85-01-8	Phenanthrene	7.0		2490	1800	72	2490	1870	75	4	30-132/46
129-00-0	Pyrene	ND		2490	1830	74	2490	1950	78	6	32-139/53
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		2490	1880	76	2490	2030	82	8	52-121/24
120-82-1	1,2,4-Trichlorobenzene	ND		2490	1940	78	2490	2050	82	6	51-120/28

CAS No.	Surrogate Recoveries	MS	MSD	LA3246-1Q	Limits
367-12-4	2-Fluorophenol	83%	83%	61%	15-133%
4165-62-2	Phenol-d5	80%	82%	60%	21-127%
118-79-6	2,4,6-Tribromophenol	81%	81%	60%	7-142%
4165-60-0	Nitrobenzene-d5	82%	85%	62%	43-128%
321-60-8	2-Fluorobiphenyl	80%	84%	65%	47-126%
1718-51-0	Terphenyl-d14	79%	82%	64%	56-124%

\* = Outside of Control Limits.



## Metals Analysis

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: LA3263  
Account: PPMLAM - PPM Consultants  
Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP301  
Matrix Type: SOLID

Methods: SW846 6010B  
Units: mg/kg

Prep Date:

02/10/15

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	3.6	7		
Antimony	1.0	.23	.94		
Arsenic	1.0	.21	.88	-0.44	<1.0
Barium	1.0	.02	.1	0.090	<1.0
Beryllium	1.0	.01	.036		
Boron	10	.05	.2		
Cadmium	1.0	.03	.075	0.0	<1.0
Calcium	10	.45	7.6		
Chromium	1.0	.04	.74	0.060	<1.0
Cobalt	1.0	.03	.088		
Copper	1.0	.1	.2		
Iron	10	.71	2.6		
Lead	1.0	.11	.34	0.10	<1.0
Lithium	1.0	.19	.12		
Magnesium	10	.83	7.6		
Manganese	1.0	.01	.15		
Molybdenum	1.0	.04	.12		
Nickel	1.0	.05	.13		
Potassium	10	7.7	2.8		
Selenium	1.0	.24	.71	0.10	<1.0
Silver	1.0	.07	.14	0.0	<1.0
Sodium	10	2.6	2.4		
Strontium	1.0	.01	.068		
Thallium	1.0	.16	.98		
Tin	1.0	.11	1		
Titanium	1.0	.01	.055		
Vanadium	1.0	.1	.36		
Zinc	1.0	.48	.85		

Associated samples MP301: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results < IDL are shown as zero for calculation purposes

(\* ) Outside of QC limits  
(anr) Analyte not requested

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP301  
Matrix Type: SOLIDMethods: SW846 6010B  
Units: mg/kg

Prep Date: 02/10/15

Metal	LA3275-3 Original MS	Spikelot ICPSPike	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	4.3	103	100	99.3 75-125
Barium	934	216	100	-753.0(a) 75-125
Beryllium				
Boron				
Cadmium	0.0	93.3	100	93.3 75-125
Calcium				
Chromium	12.5	117	100	103.5 75-125
Cobalt	anr			
Copper				
Iron				
Lead	7.3	112	100	104.7 75-125
Lithium				
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	0.0	99.1	100	99.1 75-125
Silver	0.090	103	100	102.9 75-125
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP301: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP301  
Matrix Type: SOLIDMethods: SW846 6010B  
Units: mg/kg

Prep Date:

02/10/15

Metal	LA3275-3 Original	MSD	Spikelot ICPSPike	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	4.3	94.7	100	91.0	8.4	20
Barium	934	240	100	-729.0(a)	10.5	20
Beryllium						
Boron						
Cadmium	0.0	92.1	100	92.1	1.3	20
Calcium						
Chromium	12.5	106	100	92.5	9.9	20
Cobalt	anr					
Copper						
Iron						
Lead	7.3	98.9	100	91.6	12.4	20
Lithium						
Magnesium						
Manganese						
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	0.0	86.4	100	86.4	13.7	20
Silver	0.090	99.1	100	99.0	3.9	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP301: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP301  
Matrix Type: SOLIDMethods: SW846 6010B  
Units: mg/kg

Prep Date:

02/10/15

Metal	LCS Result	Spikelot LCSMETALS1%	QC Rec	QC Limits
Aluminum				
Antimony				
Arsenic	145	139	104.3	78-122
Barium	216	203	106.4	83-118
Beryllium				
Boron				
Cadmium	99.7	96	103.9	82-118
Calcium				
Chromium	144	136	105.9	79-121
Cobalt	anr			
Copper				
Iron				
Lead	135	133	101.5	82-119
Lithium				
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	183	177	103.4	77-123
Silver	46.1	40.2	114.7	75-125
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP301: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

7.1.3  
7

## SERIAL DILUTION RESULTS SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP301  
Matrix Type: SOLIDMethods: SW846 6010B  
Units: ug/l

Prep Date: 02/10/15

Metal	LA3275-3 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	43.2	40.0	9.6	0-10
Barium	9340	10200	5.1	0-10
Beryllium				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	125	166	23.1*(a)	0-10
Cobalt	anr			
Copper				
Iron				
Lead	74.5	69.5	4.9	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.900	4.00	344.4(b)	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP301: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) High RPD due to possible sample nonhomogeneity or matrix interference.

(b) Percent difference acceptable due to low initial sample concentration (&lt; 50 times IDL).

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: LA3263  
Account: PPMLAM - PPM Consultants  
Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP313  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: mg/kg

Prep Date: 02/12/15

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.10	.009	.0077	-0.011	<0.10

Associated samples MP313: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

7.2.1  
7

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP313  
Matrix Type: SOLIDMethods: SW846 7471B  
Units: mg/kg

Prep Date: 02/12/15

Metal	LA3235-1 Original MS	Spikelot HGSPIKE1	QC % Rec	QC Limits
Mercury	0.0	0.58	0.75	77.3 75-125

Associated samples MP313: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

7.2.2  
7

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP313  
Matrix Type: SOLIDMethods: SW846 7471B  
Units: mg/kg

Prep Date:

02/12/15

Metal	LA3235-1 Original	Spikelot HGSPIKE1	MSD % Rec	QC RPD	QC Limit
Mercury	0.0	0.52	0.75	69.3N(a)	10.9 20

Associated samples MP313: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference or sample non-homogeneity.

7.2.2  
7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP313  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: mg/kg

Prep Date: 02/12/15

Metal	LCS Result	Spikelot LCSHG1	QC % Rec	QC Limits
Mercury	13.2	12.9	102.3	73-127

Associated samples MP313: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

7.2.3  
7

SERIAL DILUTION RESULTS SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP313  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: ug/l

Prep Date: 02/12/15

Metal	LA3235-1 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-

Associated samples MP313: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

7.2.4  
7

## POST DIGESTATE SPIKE SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP313  
Matrix Type: SOLIDMethods: SW846 7471B  
Units: ug/l

Prep Date:

02/12/15

Metal	Sample ml	Final ml	LA3235-1 Raw	PS Corr.** ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Mercury	2	10		5.494	0.02	2.5	5	109.9	85-115

Associated samples MP313: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(\*\*) Corr. sample result = Raw \* (sample volume / final volume)

(anr) Analyte not requested

7.2.5  
7



02/19/15

## Technical Report for

### PPM Consultants

(REIMB)City of Ruston Former Landfill, Ruston, LA  
113007

Accutest Job Number: LA3263

Sampling Date: 02/03/15

#### Report to:

PPM Consultants  
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Total number of pages in report: 83



Test results contained within this data package meet the requirements  
of the National Environmental Laboratory Accreditation Program  
and/or state specific certification programs as applicable.

*Ron Benjamin*

Ron Benjamin  
Lab Director

Client Service contact: Rebecca Hebert 337-237-4775

Certifications: LDEQ(2048), LDHH(LA150012), AR(14-045-04), FL(E87657), KY(#31), NC(487), SC(73004001),  
TX(T104704186-15-7), WV(257)

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Test results relate only to samples analyzed.

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## Sample Summary

PPM Consultants

**Job No:** LA3263(REIMB)City of Ruston Former Landfill, Ruston, LA  
Project No: 113007

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID	
LA3263-1	02/03/15	11:00	BGH	02/06/15	SO	Soil	P-1-10
LA3263-2	02/03/15	12:30	BGH	02/06/15	SO	Soil	P-2-10
LA3263-3	02/03/15	14:45	BGH	02/06/15	SO	Soil	P-3-10
LA3263-4	02/03/15	16:40	BGH	02/06/15	SO	Soil	P-4-10
LA3263-5	02/03/15	11:28	BGH	02/06/15	SO	Soil	P-5-10
LA3263-6	02/03/15	12:25	BGH	02/06/15	SO	Soil	P-6-10
LA3263-7	02/03/15	13:17	BGH	02/06/15	SO	Soil	P-7-10
LA3263-8	02/03/15	12:25	BGH	02/06/15	SO	Soil	P-2-9

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.

**Summary of Hits**

**Job Number:** LA3263  
**Account:** PPM Consultants  
**Project:** (REIMB)City of Ruston Former Landfill, Ruston, LA  
**Collected:** 02/03/15

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
<b>LA3263-1 P-1-10</b>						
Acetone	0.0840	0.050			mg/kg	SW846 8260B
Carbon Disulfide	0.0022	0.0010			mg/kg	SW846 8260B
Arsenic	7.0	1.0			mg/kg	SW846 6010B
Barium	27.1	1.0			mg/kg	SW846 6010B
Chromium	6.7	1.0			mg/kg	SW846 6010B
Lead	8.3	1.0			mg/kg	SW846 6010B
<b>LA3263-2 P-2-10</b>						
Acetone	0.103	0.052			mg/kg	SW846 8260B
Carbon Disulfide	0.0101	0.0010			mg/kg	SW846 8260B
Arsenic	12.5	1.0			mg/kg	SW846 6010B
Barium	24.9	1.0			mg/kg	SW846 6010B
Chromium	6.7	1.0			mg/kg	SW846 6010B
Lead	11.2	1.0			mg/kg	SW846 6010B
<b>LA3263-3 P-3-10</b>						
Acetone <sup>a</sup>	0.264	0.065			mg/kg	SW846 8260B
Carbon Disulfide <sup>a</sup>	0.0230	0.0013			mg/kg	SW846 8260B
Arsenic	8.9	1.0			mg/kg	SW846 6010B
Barium	18.0	1.0			mg/kg	SW846 6010B
Chromium	6.8	1.0			mg/kg	SW846 6010B
Lead	8.9	1.0			mg/kg	SW846 6010B
<b>LA3263-4 P-4-10</b>						
Acetone	0.0827	0.061			mg/kg	SW846 8260B
Carbon Disulfide	0.0034	0.0012			mg/kg	SW846 8260B
Arsenic	9.9	0.93			mg/kg	SW846 6010B
Barium	10.7	0.93			mg/kg	SW846 6010B
Chromium	5.8	0.93			mg/kg	SW846 6010B
Lead	9.8	0.93			mg/kg	SW846 6010B
<b>LA3263-5 P-5-10</b>						
Arsenic	10.2	1.0			mg/kg	SW846 6010B
Barium	34.2	1.0			mg/kg	SW846 6010B
Chromium	9.4	1.0			mg/kg	SW846 6010B
Lead	14.7	1.0			mg/kg	SW846 6010B

**Summary of Hits**

**Job Number:** LA3263  
**Account:** PPM Consultants  
**Project:** (REIMB)City of Ruston Former Landfill, Ruston, LA  
**Collected:** 02/03/15

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
<b>LA3263-6</b>	<b>P-6-10</b>					
Arsenic	2.5	0.98			mg/kg	SW846 6010B
Barium	22.2	0.98			mg/kg	SW846 6010B
Chromium	12.0	0.98			mg/kg	SW846 6010B
Lead	9.7	0.98			mg/kg	SW846 6010B
<b>LA3263-7</b>	<b>P-7-10</b>					
Arsenic	17.4	1.0			mg/kg	SW846 6010B
Barium	55.6	1.0			mg/kg	SW846 6010B
Chromium	15.1	1.0			mg/kg	SW846 6010B
Lead	8.4	1.0			mg/kg	SW846 6010B
<b>LA3263-8</b>	<b>P-2-9</b>					
Acetone	0.0809	0.058			mg/kg	SW846 8260B
Carbon Disulfide	0.0044	0.0012			mg/kg	SW846 8260B
Arsenic	4.5	1.0			mg/kg	SW846 6010B
Barium	31.8	1.0			mg/kg	SW846 6010B
Chromium	5.9	1.0			mg/kg	SW846 6010B
Lead	11.5	1.0			mg/kg	SW846 6010B

(a) Internal standards are not within control limits due to matrix interference. Confirmed by reanalysis.



## Sample Results

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## Report of Analysis

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**Report of Analysis**

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<b>Client Sample ID:</b>	P-1-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-1	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K004029.D	1	02/13/15	SV	n/a	n/a	V1K78
Run #2							

	<b>Initial Weight</b>
Run #1	5.0 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	0.0840	0.050	mg/kg	
71-43-2	Benzene	ND	0.00050	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0010	mg/kg	
75-25-2	Bromoform	ND	0.0010	mg/kg	
75-15-0	Carbon Disulfide	0.0022	0.0010	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/kg	
108-90-7	Chlorobenzene	ND	0.0010	mg/kg	
75-00-3	Chloroethane	ND	0.0010	mg/kg	
67-66-3	Chloroform	ND	0.00050	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0010	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0050	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00050	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00050	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/kg	
100-41-4	Ethylbenzene	ND	0.0010	mg/kg	
67-72-1	Hexachloroethane	ND	0.0050	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.10	mg/kg	
74-83-9	Methyl Bromide	ND	0.010	mg/kg	
74-87-3	Methyl Chloride	ND	0.0050	mg/kg	
75-09-2	Methylene Chloride	ND	0.0050	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-1-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-1	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	mg/kg	
100-42-5	Styrene	ND	0.0010	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/kg	
108-88-3	Toluene	ND	0.00050	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00050	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00050	mg/kg	
79-01-6	Trichloroethylene	ND	0.00050	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00050	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00050	mg/kg	
	m,p-Xylene	ND	0.0020	mg/kg	
95-47-6	o-Xylene	ND	0.0010	mg/kg	
1330-20-7	Xylene (total)	ND	0.0050	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	104%		59-143%
2037-26-5	Toluene-D8	96%		52-159%
460-00-4	4-Bromofluorobenzene	83%		38-183%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-1-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-1	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002344.D	1	02/09/15	HL	02/09/15	OP343	EC303
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.0 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.66	mg/kg	
100-02-7	4-Nitrophenol	ND	0.66	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.010	mg/kg	
208-96-8	Acenaphthylene	ND	0.010	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.010	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.010	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.010	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.010	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.010	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.010	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.010	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-1-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-1	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.010	mg/kg	
86-73-7	Fluorene	ND	0.010	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.66	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.010	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.010	mg/kg	
91-20-3	Naphthalene	ND	0.010	mg/kg	
88-74-4	2-Nitroaniline	ND	0.66	mg/kg	
99-09-2	3-Nitroaniline	ND	0.66	mg/kg	
100-01-6	4-Nitroaniline	ND	0.66	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.010	mg/kg	
129-00-0	Pyrene	ND	0.010	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	52%		15-133%
4165-62-2	Phenol-d5	55%		21-127%
118-79-6	2,4,6-Tribromophenol	64%		7-142%
4165-60-0	Nitrobenzene-d5	55%		43-128%
321-60-8	2-Fluorobiphenyl	61%		47-126%
1718-51-0	Terphenyl-d14	70%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-1-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-1	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	7.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	27.1	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	6.7	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.3	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium <sup>b</sup>	< 100	100	mg/kg	100	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164  
 (2) Instrument QC Batch: MA171  
 (3) Instrument QC Batch: MA174  
 (4) Prep QC Batch: MP301  
 (5) Prep QC Batch: MP313

- (a) All results reported on a wet weight basis.  
 (b) Elevated reporting limit due to dilution required for matrix interference.

RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-2	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K004195.D	1	02/17/15	SV	n/a	n/a	V1K80
Run #2							

	<b>Initial Weight</b>
Run #1	4.8 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	0.103	0.052	mg/kg	
71-43-2	Benzene	ND	0.00052	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0010	mg/kg	
75-25-2	Bromoform	ND	0.0010	mg/kg	
75-15-0	Carbon Disulfide	0.0101	0.0010	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.0010	mg/kg	
108-90-7	Chlorobenzene	ND	0.0010	mg/kg	
75-00-3	Chloroethane	ND	0.0010	mg/kg	
67-66-3	Chloroform	ND	0.00052	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0010	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0052	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0010	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0010	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0010	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0010	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0010	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0010	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00052	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00052	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.0010	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0010	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.0010	mg/kg	
100-41-4	Ethylbenzene	ND	0.0010	mg/kg	
67-72-1	Hexachloroethane	ND	0.0052	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.10	mg/kg	
74-83-9	Methyl Bromide	ND	0.010	mg/kg	
74-87-3	Methyl Chloride	ND	0.0052	mg/kg	
75-09-2	Methylene Chloride	ND	0.0052	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.013	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.013	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-2	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	mg/kg	
100-42-5	Styrene	ND	0.0010	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00052	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0010	mg/kg	
108-88-3	Toluene	ND	0.00052	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00052	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00052	mg/kg	
79-01-6	Trichloroethylene	ND	0.00052	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00052	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00052	mg/kg	
	m,p-Xylene	ND	0.0021	mg/kg	
95-47-6	o-Xylene	ND	0.0010	mg/kg	
1330-20-7	Xylene (total)	ND	0.0052	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	123%		59-143%
2037-26-5	Toluene-D8	94%		52-159%
460-00-4	4-Bromofluorobenzene	73%		38-183%

(a) All results reported on a wet weight basis.

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N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-2	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002345.D	1	02/09/15	HL	02/09/15	OP343	EC303
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.5 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.64	mg/kg	
100-02-7	4-Nitrophenol	ND	0.64	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.0098	mg/kg	
208-96-8	Acenaphthylene	ND	0.0098	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.0098	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.0098	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.0098	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.0098	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.0098	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.0098	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0098	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

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J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-2	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.0098	mg/kg	
86-73-7	Fluorene	ND	0.0098	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.64	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0098	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.0098	mg/kg	
91-20-3	Naphthalene	ND	0.0098	mg/kg	
88-74-4	2-Nitroaniline	ND	0.64	mg/kg	
99-09-2	3-Nitroaniline	ND	0.64	mg/kg	
100-01-6	4-Nitroaniline	ND	0.64	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.0098	mg/kg	
129-00-0	Pyrene	ND	0.0098	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	58%		15-133%
4165-62-2	Phenol-d5	60%		21-127%
118-79-6	2,4,6-Tribromophenol	66%		7-142%
4165-60-0	Nitrobenzene-d5	63%		43-128%
321-60-8	2-Fluorobiphenyl	67%		47-126%
1718-51-0	Terphenyl-d14	69%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-2	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	12.5	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	24.9	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	6.7	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	11.2	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium	< 10	10	mg/kg	10	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164
- (2) Instrument QC Batch: MA171
- (3) Instrument QC Batch: MA173
- (4) Prep QC Batch: MP301
- (5) Prep QC Batch: MP313

(a) All results reported on a wet weight basis.

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RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-3-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-3	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1 <sup>b</sup>	1K004196.D	1	02/17/15	SV	n/a	n/a	V1K80
Run #2							

	<b>Initial Weight</b>
Run #1	3.9 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	0.264	0.065	mg/kg	
71-43-2	Benzene	ND	0.00065	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0013	mg/kg	
75-25-2	Bromoform	ND	0.0013	mg/kg	
75-15-0	Carbon Disulfide	0.0230	0.0013	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.0013	mg/kg	
108-90-7	Chlorobenzene	ND	0.0013	mg/kg	
75-00-3	Chloroethane	ND	0.0013	mg/kg	
67-66-3	Chloroform	ND	0.00065	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0013	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0065	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0013	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0013	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0013	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0013	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0013	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0013	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00065	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00065	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.0013	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0013	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0013	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0013	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.0013	mg/kg	
100-41-4	Ethylbenzene	ND	0.0013	mg/kg	
67-72-1	Hexachloroethane	ND	0.0065	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.13	mg/kg	
74-83-9	Methyl Bromide	ND	0.013	mg/kg	
74-87-3	Methyl Chloride	ND	0.0065	mg/kg	
75-09-2	Methylene Chloride	ND	0.0065	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.016	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.016	mg/kg	

ND = Not detected

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E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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**Client Sample ID:** P-3-10  
**Lab Sample ID:** LA3263-3  
**Matrix:** SO - Soil  
**Method:** SW846 8260B  
**Project:** (REIMB)City of Ruston Former Landfill, Ruston, LA

**Date Sampled:** 02/03/15  
**Date Received:** 02/06/15  
**Percent Solids:** n/a<sup>a</sup>

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0013	mg/kg	
100-42-5	Styrene	ND	0.0013	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0013	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00065	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0013	mg/kg	
108-88-3	Toluene	ND	0.00065	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00065	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00065	mg/kg	
79-01-6	Trichloroethylene	ND	0.00065	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00065	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00065	mg/kg	
	m,p-Xylene	ND	0.0026	mg/kg	
95-47-6	o-Xylene	ND	0.0013	mg/kg	
1330-20-7	Xylene (total)	ND	0.0065	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	163%		59-143%
2037-26-5	Toluene-D8	97%		52-159%
460-00-4	4-Bromofluorobenzene	96%		38-183%

(a) All results reported on a wet weight basis.

(b) Internal standards are not within control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-3-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-3	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		
Run #1	File ID C0002346.D	DF 1	Analyzed 02/09/15
Run #2			By HL
		Prep Date 02/09/15	Prep Batch OP343
			Analytical Batch EC303
	<b>Initial Weight</b> Run #1 20.2 g	<b>Final Volume</b> 1.0 ml	
Run #2			

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.65	mg/kg	
100-02-7	4-Nitrophenol	ND	0.65	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.0099	mg/kg	
208-96-8	Acenaphthylene	ND	0.0099	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.0099	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.0099	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.0099	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.0099	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.0099	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.0099	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0099	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-3-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-3	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.0099	mg/kg	
86-73-7	Fluorene	ND	0.0099	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.65	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0099	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.0099	mg/kg	
91-20-3	Naphthalene	ND	0.0099	mg/kg	
88-74-4	2-Nitroaniline	ND	0.65	mg/kg	
99-09-2	3-Nitroaniline	ND	0.65	mg/kg	
100-01-6	4-Nitroaniline	ND	0.65	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.0099	mg/kg	
129-00-0	Pyrene	ND	0.0099	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		15-133%
4165-62-2	Phenol-d5	52%		21-127%
118-79-6	2,4,6-Tribromophenol	62%		7-142%
4165-60-0	Nitrobenzene-d5	57%		43-128%
321-60-8	2-Fluorobiphenyl	62%		47-126%
1718-51-0	Terphenyl-d14	65%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-3-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-3	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	8.9	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	18.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	6.8	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.9	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium <sup>b</sup>	< 100	100	mg/kg	100	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164  
 (2) Instrument QC Batch: MA171  
 (3) Instrument QC Batch: MA174  
 (4) Prep QC Batch: MP301  
 (5) Prep QC Batch: MP313

- (a) All results reported on a wet weight basis.  
 (b) Elevated reporting limit due to dilution required for matrix interference.

RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-4-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-4	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K003801.D	1	02/09/15	NN	n/a	n/a	V1K72
Run #2							

	<b>Initial Weight</b>
Run #1	4.1 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	0.0827	0.061	mg/kg	
71-43-2	Benzene	ND	0.00061	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0012	mg/kg	
75-25-2	Bromoform	ND	0.0012	mg/kg	
75-15-0	Carbon Disulfide	0.0034	0.0012	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.0012	mg/kg	
108-90-7	Chlorobenzene	ND	0.0012	mg/kg	
75-00-3	Chloroethane	ND	0.0012	mg/kg	
67-66-3	Chloroform	ND	0.00061	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0012	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0061	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0012	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0012	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0012	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0012	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0012	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0012	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00061	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00061	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.0012	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0012	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0012	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0012	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.0012	mg/kg	
100-41-4	Ethylbenzene	ND	0.0012	mg/kg	
67-72-1	Hexachloroethane	ND	0.0061	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.12	mg/kg	
74-83-9	Methyl Bromide	ND	0.012	mg/kg	
74-87-3	Methyl Chloride	ND	0.0061	mg/kg	
75-09-2	Methylene Chloride	ND	0.0061	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.015	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.015	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-4-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-4	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0012	mg/kg	
100-42-5	Styrene	ND	0.0012	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0012	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00061	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0012	mg/kg	
108-88-3	Toluene	ND	0.00061	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00061	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00061	mg/kg	
79-01-6	Trichloroethylene	ND	0.00061	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00061	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00061	mg/kg	
	m,p-Xylene	ND	0.0024	mg/kg	
95-47-6	o-Xylene	ND	0.0012	mg/kg	
1330-20-7	Xylene (total)	ND	0.0061	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	115%		59-143%
2037-26-5	Toluene-D8	96%		52-159%
460-00-4	4-Bromofluorobenzene	86%		38-183%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-4-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-4	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002347.D	1	02/09/15	HL	02/09/15	OP343	EC303
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.1 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.66	mg/kg	
100-02-7	4-Nitrophenol	ND	0.66	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.010	mg/kg	
208-96-8	Acenaphthylene	ND	0.010	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.010	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.010	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.010	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.010	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.010	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.010	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.010	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-4-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-4	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.010	mg/kg	
86-73-7	Fluorene	ND	0.010	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.66	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.010	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.010	mg/kg	
91-20-3	Naphthalene	ND	0.010	mg/kg	
88-74-4	2-Nitroaniline	ND	0.66	mg/kg	
99-09-2	3-Nitroaniline	ND	0.66	mg/kg	
100-01-6	4-Nitroaniline	ND	0.66	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.010	mg/kg	
129-00-0	Pyrene	ND	0.010	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%		15-133%
4165-62-2	Phenol-d5	51%		21-127%
118-79-6	2,4,6-Tribromophenol	57%		7-142%
4165-60-0	Nitrobenzene-d5	54%		43-128%
321-60-8	2-Fluorobiphenyl	56%		47-126%
1718-51-0	Terphenyl-d14	62%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-4-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-4	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	9.9	0.93	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	10.7	0.93	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 0.93	0.93	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	5.8	0.93	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	9.8	0.93	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium	< 9.3	9.3	mg/kg	10	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 0.93	0.93	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164
- (2) Instrument QC Batch: MA171
- (3) Instrument QC Batch: MA173
- (4) Prep QC Batch: MP301
- (5) Prep QC Batch: MP313

(a) All results reported on a wet weight basis.

RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-5-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-5	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K003802.D	1	02/09/15	NN	n/a	n/a	V1K72
Run #2							

	<b>Initial Weight</b>
Run #1	5.2 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	ND	0.048	mg/kg	
71-43-2	Benzene	ND	0.00048	mg/kg	
75-27-4	Bromodichloromethane	ND	0.00097	mg/kg	
75-25-2	Bromoform	ND	0.00097	mg/kg	
75-15-0	Carbon Disulfide	ND	0.00097	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.00097	mg/kg	
108-90-7	Chlorobenzene	ND	0.00097	mg/kg	
75-00-3	Chloroethane	ND	0.00097	mg/kg	
67-66-3	Chloroform	ND	0.00048	mg/kg	
124-48-1	Dibromochloromethane	ND	0.00097	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0048	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.00097	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.00097	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.00097	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.00097	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.00097	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.00097	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00048	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00048	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.00097	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.00097	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.00097	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.00097	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.00097	mg/kg	
100-41-4	Ethylbenzene	ND	0.00097	mg/kg	
67-72-1	Hexachloroethane	ND	0.0048	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.097	mg/kg	
74-83-9	Methyl Bromide	ND	0.0097	mg/kg	
74-87-3	Methyl Chloride	ND	0.0048	mg/kg	
75-09-2	Methylene Chloride	ND	0.0048	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.012	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.012	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-5-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-5	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.00097	mg/kg	
100-42-5	Styrene	ND	0.00097	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.00097	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00048	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.00097	mg/kg	
108-88-3	Toluene	ND	0.00048	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00048	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00048	mg/kg	
79-01-6	Trichloroethylene	ND	0.00048	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00048	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00048	mg/kg	
	m,p-Xylene	ND	0.0019	mg/kg	
95-47-6	o-Xylene	ND	0.00097	mg/kg	
1330-20-7	Xylene (total)	ND	0.0048	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	117%		59-143%
2037-26-5	Toluene-D8	99%		52-159%
460-00-4	4-Bromofluorobenzene	98%		38-183%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-5-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-5	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002348.D	1	02/09/15	HL	02/09/15	OP343	EC303
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.3 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.65	mg/kg	
100-02-7	4-Nitrophenol	ND	0.65	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.0099	mg/kg	
208-96-8	Acenaphthylene	ND	0.0099	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.0099	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.0099	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.0099	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.0099	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.0099	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.0099	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0099	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-5-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-5	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.0099	mg/kg	
86-73-7	Fluorene	ND	0.0099	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.65	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0099	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.0099	mg/kg	
91-20-3	Naphthalene	ND	0.0099	mg/kg	
88-74-4	2-Nitroaniline	ND	0.65	mg/kg	
99-09-2	3-Nitroaniline	ND	0.65	mg/kg	
100-01-6	4-Nitroaniline	ND	0.65	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.0099	mg/kg	
129-00-0	Pyrene	ND	0.0099	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	64%		15-133%
4165-62-2	Phenol-d5	66%		21-127%
118-79-6	2,4,6-Tribromophenol	75%		7-142%
4165-60-0	Nitrobenzene-d5	69%		43-128%
321-60-8	2-Fluorobiphenyl	72%		47-126%
1718-51-0	Terphenyl-d14	80%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-5-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-5	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	10.2	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	34.2	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	9.4	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	14.7	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium	< 10	10	mg/kg	10	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164  
 (2) Instrument QC Batch: MA171  
 (3) Instrument QC Batch: MA173  
 (4) Prep QC Batch: MP301  
 (5) Prep QC Batch: MP313

(a) All results reported on a wet weight basis.

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RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-6-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-6	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K003803.D	1	02/09/15	NN	n/a	n/a	V1K72
Run #2							

	<b>Initial Weight</b>
Run #1	5.1 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	ND	0.050	mg/kg	
71-43-2	Benzene	ND	0.00050	mg/kg	
75-27-4	Bromodichloromethane	ND	0.00099	mg/kg	
75-25-2	Bromoform	ND	0.00099	mg/kg	
75-15-0	Carbon Disulfide	ND	0.00099	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.00099	mg/kg	
108-90-7	Chlorobenzene	ND	0.00099	mg/kg	
75-00-3	Chloroethane	ND	0.00099	mg/kg	
67-66-3	Chloroform	ND	0.00050	mg/kg	
124-48-1	Dibromochloromethane	ND	0.00099	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0050	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.00099	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.00099	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.00099	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.00099	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.00099	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.00099	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00050	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00050	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.00099	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.00099	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.00099	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.00099	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.00099	mg/kg	
100-41-4	Ethylbenzene	ND	0.00099	mg/kg	
67-72-1	Hexachloroethane	ND	0.0050	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.099	mg/kg	
74-83-9	Methyl Bromide	ND	0.0099	mg/kg	
74-87-3	Methyl Chloride	ND	0.0050	mg/kg	
75-09-2	Methylene Chloride	ND	0.0050	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.012	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.012	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-6-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-6	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.00099	mg/kg	
100-42-5	Styrene	ND	0.00099	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.00099	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00050	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.00099	mg/kg	
108-88-3	Toluene	ND	0.00050	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00050	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00050	mg/kg	
79-01-6	Trichloroethylene	ND	0.00050	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00050	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00050	mg/kg	
	m,p-Xylene	ND	0.0020	mg/kg	
95-47-6	o-Xylene	ND	0.00099	mg/kg	
1330-20-7	Xylene (total)	ND	0.0050	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	104%		59-143%
2037-26-5	Toluene-D8	99%		52-159%
460-00-4	4-Bromofluorobenzene	96%		38-183%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-6-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-6	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002373.D	1	02/11/15	HL	02/09/15	OP343	EC304
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.2 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.65	mg/kg	
100-02-7	4-Nitrophenol	ND	0.65	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.0099	mg/kg	
208-96-8	Acenaphthylene	ND	0.0099	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.0099	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.0099	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.0099	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.0099	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.0099	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.0099	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0099	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-6-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-6	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.0099	mg/kg	
86-73-7	Fluorene	ND	0.0099	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.65	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0099	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.0099	mg/kg	
91-20-3	Naphthalene	ND	0.0099	mg/kg	
88-74-4	2-Nitroaniline	ND	0.65	mg/kg	
99-09-2	3-Nitroaniline	ND	0.65	mg/kg	
100-01-6	4-Nitroaniline	ND	0.65	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.0099	mg/kg	
129-00-0	Pyrene	ND	0.0099	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		15-133%
4165-62-2	Phenol-d5	63%		21-127%
118-79-6	2,4,6-Tribromophenol	77%		7-142%
4165-60-0	Nitrobenzene-d5	66%		43-128%
321-60-8	2-Fluorobiphenyl	74%		47-126%
1718-51-0	Terphenyl-d14	82%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-6-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-6	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.5	0.98	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	22.2	0.98	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 0.98	0.98	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	12.0	0.98	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	9.7	0.98	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium <sup>b</sup>	< 98	98	mg/kg	100	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 0.98	0.98	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164  
 (2) Instrument QC Batch: MA171  
 (3) Instrument QC Batch: MA174  
 (4) Prep QC Batch: MP301  
 (5) Prep QC Batch: MP313

- (a) All results reported on a wet weight basis.  
 (b) Elevated reporting limit due to dilution required for matrix interference.

RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-7-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-7	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K003804.D	1	02/09/15	NN	n/a	n/a	V1K72
Run #2							

	<b>Initial Weight</b>
Run #1	5.3 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	ND	0.047	mg/kg	
71-43-2	Benzene	ND	0.00047	mg/kg	
75-27-4	Bromodichloromethane	ND	0.00095	mg/kg	
75-25-2	Bromoform	ND	0.00095	mg/kg	
75-15-0	Carbon Disulfide	ND	0.00095	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.00095	mg/kg	
108-90-7	Chlorobenzene	ND	0.00095	mg/kg	
75-00-3	Chloroethane	ND	0.00095	mg/kg	
67-66-3	Chloroform	ND	0.00047	mg/kg	
124-48-1	Dibromochloromethane	ND	0.00095	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0047	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.00095	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.00095	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.00095	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.00095	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.00095	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.00095	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00047	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00047	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.00095	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.00095	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.00095	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.00095	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.00095	mg/kg	
100-41-4	Ethylbenzene	ND	0.00095	mg/kg	
67-72-1	Hexachloroethane	ND	0.0047	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.095	mg/kg	
74-83-9	Methyl Bromide	ND	0.0095	mg/kg	
74-87-3	Methyl Chloride	ND	0.0047	mg/kg	
75-09-2	Methylene Chloride	ND	0.0047	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.012	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.012	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-7-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-7	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.00095	mg/kg	
100-42-5	Styrene	ND	0.00095	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.00095	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00047	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.00095	mg/kg	
108-88-3	Toluene	ND	0.00047	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00047	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00047	mg/kg	
79-01-6	Trichloroethylene	ND	0.00047	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00047	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00047	mg/kg	
	m,p-Xylene	ND	0.0019	mg/kg	
95-47-6	o-Xylene	ND	0.00095	mg/kg	
1330-20-7	Xylene (total)	ND	0.0047	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	118%		59-143%
2037-26-5	Toluene-D8	99%		52-159%
460-00-4	4-Bromofluorobenzene	99%		38-183%

(a) All results reported on a wet weight basis.

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N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-7-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-7	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002374.D	1	02/11/15	HL	02/09/15	OP343	EC304
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.4 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.65	mg/kg	
100-02-7	4-Nitrophenol	ND	0.65	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.0098	mg/kg	
208-96-8	Acenaphthylene	ND	0.0098	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.0098	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.0098	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.0098	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.0098	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.0098	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.0098	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0098	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-7-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-7	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.0098	mg/kg	
86-73-7	Fluorene	ND	0.0098	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.65	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0098	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.0098	mg/kg	
91-20-3	Naphthalene	ND	0.0098	mg/kg	
88-74-4	2-Nitroaniline	ND	0.65	mg/kg	
99-09-2	3-Nitroaniline	ND	0.65	mg/kg	
100-01-6	4-Nitroaniline	ND	0.65	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.0098	mg/kg	
129-00-0	Pyrene	ND	0.0098	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%		15-133%
4165-62-2	Phenol-d5	53%		21-127%
118-79-6	2,4,6-Tribromophenol	65%		7-142%
4165-60-0	Nitrobenzene-d5	55%		43-128%
321-60-8	2-Fluorobiphenyl	60%		47-126%
1718-51-0	Terphenyl-d14	68%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-7-10	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-7	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	17.4	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	55.6	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	15.1	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	8.4	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium	< 10	10	mg/kg	10	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164
- (2) Instrument QC Batch: MA171
- (3) Instrument QC Batch: MA173
- (4) Prep QC Batch: MP301
- (5) Prep QC Batch: MP313

(a) All results reported on a wet weight basis.

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RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-9	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-8	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	1K004197.D	1	02/17/15	SV	n/a	n/a	V1K80
Run #2							

	<b>Initial Weight</b>
Run #1	4.3 g
Run #2	

**VOA RECAP List**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
67-64-1	Acetone	0.0809	0.058	mg/kg	
71-43-2	Benzene	ND	0.00058	mg/kg	
75-27-4	Bromodichloromethane	ND	0.0012	mg/kg	
75-25-2	Bromoform	ND	0.0012	mg/kg	
75-15-0	Carbon Disulfide	0.0044	0.0012	mg/kg	
56-23-5	Carbon Tetrachloride	ND	0.0012	mg/kg	
108-90-7	Chlorobenzene	ND	0.0012	mg/kg	
75-00-3	Chloroethane	ND	0.0012	mg/kg	
67-66-3	Chloroform	ND	0.00058	mg/kg	
124-48-1	Dibromochloromethane	ND	0.0012	mg/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0058	mg/kg	
541-73-1	m-Dichlorobenzene	ND	0.0012	mg/kg	
95-50-1	o-Dichlorobenzene	ND	0.0012	mg/kg	
106-46-7	p-Dichlorobenzene	ND	0.0012	mg/kg	
75-34-3	1,1-Dichloroethane	ND	0.0012	mg/kg	
107-06-2	1,2-Dichloroethane	ND	0.0012	mg/kg	
75-35-4	1,1-Dichloroethylene	ND	0.0012	mg/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.00058	mg/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.00058	mg/kg	
540-59-0	1,2-Dichloroethene (total)	ND	0.0012	mg/kg	
78-87-5	1,2-Dichloropropane	ND	0.0012	mg/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0012	mg/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0012	mg/kg	
542-75-6	1,3-Dichloropropene (total)	ND	0.0012	mg/kg	
100-41-4	Ethylbenzene	ND	0.0012	mg/kg	
67-72-1	Hexachloroethane	ND	0.0058	mg/kg	
78-83-1	Isobutyl alcohol	ND	0.12	mg/kg	
74-83-9	Methyl Bromide	ND	0.012	mg/kg	
74-87-3	Methyl Chloride	ND	0.0058	mg/kg	
75-09-2	Methylene Chloride	ND	0.0058	mg/kg	
78-93-3	Methyl Ethyl Ketone	ND	0.014	mg/kg	
108-10-1	4-Methyl-2-pentanone	ND	0.014	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-9	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-8	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**VOA RECAP List**

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	0.0012	mg/kg	
100-42-5	Styrene	ND	0.0012	mg/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0012	mg/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.00058	mg/kg	
127-18-4	Tetrachloroethylene	ND	0.0012	mg/kg	
108-88-3	Toluene	ND	0.00058	mg/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.00058	mg/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.00058	mg/kg	
79-01-6	Trichloroethylene	ND	0.00058	mg/kg	
75-69-4	Trichlorofluoromethane	ND	0.00058	mg/kg	
75-01-4	Vinyl Chloride	ND	0.00058	mg/kg	
	m,p-Xylene	ND	0.0023	mg/kg	
95-47-6	o-Xylene	ND	0.0012	mg/kg	
1330-20-7	Xylene (total)	ND	0.0058	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	114%		59-143%
2037-26-5	Toluene-D8	99%		52-159%
460-00-4	4-Bromofluorobenzene	99%		38-183%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-9	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-8	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	C0002375.D	1	02/11/15	HL	02/09/15	OP343	EC304
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	20.5 g	1.0 ml
Run #2		

**ABN RECAP LIST**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>Units</b>	<b>Q</b>
95-57-8	2-Chlorophenol	ND	0.17	mg/kg	
120-83-2	2,4-Dichlorophenol	ND	0.17	mg/kg	
105-67-9	2,4-Dimethylphenol	ND	0.17	mg/kg	
51-28-5	2,4-Dinitrophenol	ND	0.64	mg/kg	
100-02-7	4-Nitrophenol	ND	0.64	mg/kg	
87-86-5	Pentachlorophenol	ND	0.17	mg/kg	
108-95-2	Phenol	ND	0.17	mg/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	0.17	mg/kg	
95-95-4	2,4,5-Trichlorophenol	ND	0.17	mg/kg	
88-06-2	2,4,6-Trichlorophenol	ND	0.17	mg/kg	
83-32-9	Acenaphthene	ND	0.0098	mg/kg	
208-96-8	Acenaphthylene	ND	0.0098	mg/kg	
62-53-3	Aniline	ND	0.17	mg/kg	
120-12-7	Anthracene	ND	0.0098	mg/kg	
56-55-3	Benzo(a)anthracene	ND	0.0098	mg/kg	
50-32-8	Benzo(a)pyrene	ND	0.0098	mg/kg	
205-99-2	Benzo(b)fluoranthene	ND	0.0098	mg/kg	
92-52-4	1,1'-Biphenyl	ND	0.17	mg/kg	
207-08-9	Benzo(k)fluoranthene	ND	0.0098	mg/kg	
85-68-7	Butyl Benzyl Phthalate	ND	0.17	mg/kg	
106-47-8	4-Chloroaniline	ND	0.17	mg/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	0.17	mg/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.17	mg/kg	
91-58-7	2-Chloronaphthalene	ND	0.17	mg/kg	
218-01-9	Chrysene	ND	0.0098	mg/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0098	mg/kg	
132-64-9	Dibenzofuran	ND	0.17	mg/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	0.17	mg/kg	
84-66-2	Diethyl Phthalate	ND	0.17	mg/kg	
131-11-3	Dimethyl Phthalate	ND	0.17	mg/kg	
117-84-0	Di-n-octyl Phthalate	ND	0.17	mg/kg	
99-65-0	1,3-Dinitrobenzene	ND	0.17	mg/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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<b>Client Sample ID:</b>	P-2-9	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-8	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**ABN RECAP LIST**

CAS No.	Compound	Result	RL	Units	Q
121-14-2	2,4-Dinitrotoluene	ND	0.17	mg/kg	
606-20-2	2,6-Dinitrotoluene	ND	0.17	mg/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.17	mg/kg	
206-44-0	Fluoranthene	ND	0.0098	mg/kg	
86-73-7	Fluorene	ND	0.0098	mg/kg	
118-74-1	Hexachlorobenzene	ND	0.17	mg/kg	
87-68-3	Hexachlorobutadiene	ND	0.17	mg/kg	
77-47-4	Hexachlorocyclopentadiene	ND	0.64	mg/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0098	mg/kg	
78-59-1	Isophorone	ND	0.17	mg/kg	
91-57-6	2-Methylnaphthalene	ND	0.0098	mg/kg	
91-20-3	Naphthalene	ND	0.0098	mg/kg	
88-74-4	2-Nitroaniline	ND	0.64	mg/kg	
99-09-2	3-Nitroaniline	ND	0.64	mg/kg	
100-01-6	4-Nitroaniline	ND	0.64	mg/kg	
98-95-3	Nitrobenzene	ND	0.17	mg/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.17	mg/kg	
86-30-6	N-Nitrosodiphenylamine	ND	0.17	mg/kg	
85-01-8	Phenanthrene	ND	0.0098	mg/kg	
129-00-0	Pyrene	ND	0.0098	mg/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	0.17	mg/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	0.17	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	60%		15-133%
4165-62-2	Phenol-d5	62%		21-127%
118-79-6	2,4,6-Tribromophenol	67%		7-142%
4165-60-0	Nitrobenzene-d5	63%		43-128%
321-60-8	2-Fluorobiphenyl	66%		47-126%
1718-51-0	Terphenyl-d14	69%		56-124%

(a) All results reported on a wet weight basis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

**Report of Analysis**

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3.8  
3

<b>Client Sample ID:</b>	P-2-9	<b>Date Sampled:</b>	02/03/15
<b>Lab Sample ID:</b>	LA3263-8	<b>Date Received:</b>	02/06/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	n/a <sup>a</sup>
<b>Project:</b>	(REIMB)City of Ruston Former Landfill, Ruston, LA		

**Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	4.5	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Barium	31.8	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Cadmium	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Chromium	5.9	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Lead	11.5	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>
Mercury	< 0.10	0.10	mg/kg	1	02/12/15	02/12/15 SA	SW846 7471B <sup>2</sup>	SW846 7471A <sup>5</sup>
Selenium <sup>b</sup>	< 100	100	mg/kg	100	02/10/15	02/13/15 RT	SW846 6010B <sup>3</sup>	SW846 3050B <sup>4</sup>
Silver	< 1.0	1.0	mg/kg	1	02/10/15	02/12/15 RT	SW846 6010B <sup>1</sup>	SW846 3050B <sup>4</sup>

- (1) Instrument QC Batch: MA164  
 (2) Instrument QC Batch: MA171  
 (3) Instrument QC Batch: MA174  
 (4) Prep QC Batch: MP301  
 (5) Prep QC Batch: MP313

- (a) All results reported on a wet weight basis.  
 (b) Elevated reporting limit due to dilution required for matrix interference.

RL = Reporting Limit



## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



# CHAIN OF CUSTODY

Accutest Gulf Coast  
500 Ambassador Caffery Pkwy, Scott, LA 70583  
TEL.337-237-4775 FAX: 337-237-7838  
www.accutest.com

LSR-F005.00

PAGE 1 OF 1

FED-EX Tracking #	Bottle Order Control #
Accutest Job #	LA 3263
Requested Analyses	
Matrix Codes	
DW - Drinking Water	
GW - Ground Water	
WW - Water	
SW - Surface Water	
SO - Soil	
SL - Sludge	
SED - Sediment	
OI - Oil	
LIQ - Other Liquid	
AIR - Air	
SOL - Other Solid	
WP - Wipe	
FB-Field Blank	
EB-Equipment Blank	
RB-Rinse Blank	
TB-Trip Blank	
LAB USE ONLY	

Client / Reporting Information		Project Information		Collection															
Company Name <i>PPM Consultants</i>	Project Name: <i>City of Ruston Former Landfill</i>			Billing Information (if different from Report to)															
Street Address <i>1600 Laundry Lane</i>	Street			Company Name															
City <i>Monroe, LA</i>	State <i>LA</i>			City <i>Ruston, LA</i>															
Project Contact <i>Chesbury Reed</i>	E-mail <i></i>	Project # <i>113007</i>		Street Address															
Phone # <i>(318) 323-7270</i>	Fax # <i></i>	Client Purchase Order # <i></i>		City <i></i>		State <i></i>		Zip <i></i>		Number of preserved Bottles		ENCLONE		OTHER					
Sampler(s) Name(s) <i>Bobby Grambl Hill</i>	Phone #	Project Manager <i>Chesbury Reed</i>		Attention:															
Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	# of bottles	HG	NaOH	Zn/NH4	HgCO	HgSO4	Di Water	TSP	NaHSO4	VOCUS	SVOCUS	RCRA Materials		
1	P-1-10	2/13	1160	BGII	SO	1												7	
2	P-2-10	2/13	1230															7	
3	P-3-10	2/13	1445															7	
4	P-4-10	2/13	1640															7	
5	P-5-10	2/14	1128															7	
6	P-6-10	2/14	1225															7	
7	P-7-10	2/14	1317															7	
8	P-2-9	2/13	1225															7	
Turnaround Time (Business days)				Data Deliverable Information												Comments / Special Instructions			
<input checked="" type="checkbox"/> Standard	Approved By (Accutest PM): / Date:			<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> TRRP <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> EDD Format <input type="checkbox"/> FULT1 (Level 3+4) <input type="checkbox"/> Other _____ <input type="checkbox"/> REDT1 (Level 3+4) <input type="checkbox"/> Commercial "C"						RWA 10 (VS) RWA 9 (3w)									
<input type="checkbox"/> 5 Day RUSH										RWA 10 (VS) RWA 9 (3w)									
<input type="checkbox"/> 4 Day RUSH										RWA 10 (VS) RWA 9 (3w)									
<input type="checkbox"/> 3 Day RUSH										RWA 10 (VS) RWA 9 (3w)									
<input type="checkbox"/> 2 Day RUSH										RWA 10 (VS) RWA 9 (3w)									
<input type="checkbox"/> 1 Day EMERGENCY										RWA 10 (VS) RWA 9 (3w)									
Emergency & Rush T/A data available VIA Lablink																			
Sample Custody must be documented below each time samples change possession, including courier delivery.																			
Relinquished by Sampler: <i>1</i>	Date/Time: <i>2/16 1200</i>	Received By: <i>1</i>	Date/Time: <i>2/16/15 12:35</i>	Relinquished By: <i>2</i>	Date/Time: <i>2/16/15 11:20</i>	Received By: <i>2</i>													
Relinquished by Sampler: <i>3</i>	Date/Time: <i></i>	Received By: <i>3</i>	Date/Time: <i></i>	Relinquished By: <i>4</i>	Date/Time: <i></i>	Received By: <i>4</i>													
Relinquished by: <i>5</i>	Date/Time: <i></i>	Received By: <i>5</i>	Date/Time: <i></i>	Custody Seal #: <i>Concussion</i>	Intact <input type="checkbox"/> Not intact <input type="checkbox"/>	Preserved where applicable <input type="checkbox"/>	On Ice <input type="checkbox"/> Cooler Temp. <i>(40°W 70°E)</i>												

LA3263: Chain of Custody

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## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: LA3263

Client: PPM

Project: CITY OF RUSTON

Date / Time Received: 2/6/2015 4:20:00 PM

Delivery Method: Accutest Courier

Airbill #'s:

Cooler Temps (Initial/Adjusted): #1: (4/3.9):

**Cooler Security**      Y or N

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Cooler Temperature**      Y or N

- |                            |                                     |                          |
|----------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Thermometer ID:         | DV260;                              |                          |
| 3. Cooler media:           | Ice (direct contact)                |                          |
| 4. No. Coolers:            | 1                                   |                          |

**Quality Control Preservation**      Y or N      N/A

- |                                 |                                     |                          |                                     |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 4. VOCs headspace free:         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Sample Integrity - Documentation**

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Sample Integrity - Condition**

- |                                  |                                     |                          |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |                          |

**Sample Integrity - Instructions**

- |   |                                     |                                     |
|---|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            |

Y or N

N/A

Comments

Accutest Laboratories  
V:(800) 304-5227

500 Ambassador Caffery Parkway

Scott, Louisiana 70583  
[www.accutest.com](http://www.accutest.com)**LA3263: Chain of Custody****Page 2 of 2**

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## GC/MS Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K72-MB1	1K003795.D	1	02/09/15	NN	n/a	n/a	V1K72

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-4, LA3263-5, LA3263-6, LA3263-7

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	50	ug/kg	
71-43-2	Benzene	ND	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	1.0	ug/kg	
75-25-2	Bromoform	ND	1.0	ug/kg	
75-15-0	Carbon Disulfide	ND	1.0	ug/kg	
56-23-5	Carbon Tetrachloride	ND	1.0	ug/kg	
108-90-7	Chlorobenzene	ND	1.0	ug/kg	
75-00-3	Chloroethane	ND	1.0	ug/kg	
67-66-3	Chloroform	ND	0.50	ug/kg	
124-48-1	Dibromochloromethane	ND	1.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/kg	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/kg	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/kg	
542-75-6	1,3-Dichloropropene (total)	ND	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	ug/kg	
67-72-1	Hexachloroethane	ND	5.0	ug/kg	
78-83-1	Isobutyl alcohol	ND	100	ug/kg	
74-83-9	Methyl Bromide	ND	10	ug/kg	
74-87-3	Methyl Chloride	ND	5.0	ug/kg	
75-09-2	Methylene Chloride	ND	5.0	ug/kg	
78-93-3	Methyl Ethyl Ketone	ND	13	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	13	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/kg	
100-42-5	Styrene	ND	1.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/kg	

5.1.1  
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## Method Blank Summary

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Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K72-MB1	1K003795.D	1	02/09/15	NN	n/a	n/a	V1K72

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-4, LA3263-5, LA3263-6, LA3263-7

CAS No.	Compound	Result	RL	Units	Q
127-18-4	Tetrachloroethylene	ND	1.0	ug/kg	
108-88-3	Toluene	ND	0.50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/kg	
79-01-6	Trichloroethylene	ND	0.50	ug/kg	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/kg	
75-01-4	Vinyl Chloride	ND	0.50	ug/kg	
	m,p-Xylene	ND	2.0	ug/kg	
95-47-6	o-Xylene	ND	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	5.0	ug/kg	

### CAS No. Surrogate Recoveries

### Limits

17060-07-0	1,2-Dichloroethane-D4	105%	59-143%
2037-26-5	Toluene-D8	101%	52-159%
460-00-4	4-Bromofluorobenzene	99%	38-183%

5.1.1  
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**Method Blank Summary**

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K78-MB2	1K004023.D	1	02/13/15	SV	n/a	n/a	V1K78

The QC reported here applies to the following samples:

**Method:** SW846 8260B

LA3263-1

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	6.1	50	ug/kg	J
71-43-2	Benzene	ND	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	1.0	ug/kg	
75-25-2	Bromoform	ND	1.0	ug/kg	
75-15-0	Carbon Disulfide	ND	1.0	ug/kg	
56-23-5	Carbon Tetrachloride	ND	1.0	ug/kg	
108-90-7	Chlorobenzene	ND	1.0	ug/kg	
75-00-3	Chloroethane	ND	1.0	ug/kg	
67-66-3	Chloroform	ND	0.50	ug/kg	
124-48-1	Dibromochloromethane	ND	1.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/kg	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/kg	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/kg	
542-75-6	1,3-Dichloropropene (total)	ND	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	ug/kg	
67-72-1	Hexachloroethane	ND	5.0	ug/kg	
78-83-1	Isobutyl alcohol	ND	100	ug/kg	
74-83-9	Methyl Bromide	ND	10	ug/kg	
74-87-3	Methyl Chloride	ND	5.0	ug/kg	
75-09-2	Methylene Chloride	ND	5.0	ug/kg	
78-93-3	Methyl Ethyl Ketone	ND	13	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	13	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/kg	
100-42-5	Styrene	ND	1.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/kg	

## Method Blank Summary

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Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K78-MB2	1K004023.D	1	02/13/15	SV	n/a	n/a	V1K78

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-1

CAS No.	Compound	Result	RL	Units	Q
127-18-4	Tetrachloroethylene	ND	1.0	ug/kg	
108-88-3	Toluene	ND	0.50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/kg	
79-01-6	Trichloroethylene	ND	0.50	ug/kg	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/kg	
75-01-4	Vinyl Chloride	ND	0.50	ug/kg	
	m,p-Xylene	ND	2.0	ug/kg	
95-47-6	o-Xylene	ND	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	5.0	ug/kg	

### CAS No. Surrogate Recoveries

### Limits

17060-07-0	1,2-Dichloroethane-D4	106%	59-143%
2037-26-5	Toluene-D8	99%	52-159%
460-00-4	4-Bromofluorobenzene	101%	38-183%

## Method Blank Summary

Page 1 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K80-MB1	1K004193.D	1	02/17/15	SV	n/a	n/a	V1K80

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-2, LA3263-3, LA3263-8

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	5.5	50	ug/kg	J
71-43-2	Benzene	ND	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	1.0	ug/kg	
75-25-2	Bromoform	ND	1.0	ug/kg	
75-15-0	Carbon Disulfide	ND	1.0	ug/kg	
56-23-5	Carbon Tetrachloride	ND	1.0	ug/kg	
108-90-7	Chlorobenzene	ND	1.0	ug/kg	
75-00-3	Chloroethane	ND	1.0	ug/kg	
67-66-3	Chloroform	ND	0.50	ug/kg	
124-48-1	Dibromochloromethane	ND	1.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/kg	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/kg	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/kg	
542-75-6	1,3-Dichloropropene (total)	ND	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	ug/kg	
67-72-1	Hexachloroethane	ND	5.0	ug/kg	
78-83-1	Isobutyl alcohol	ND	100	ug/kg	
74-83-9	Methyl Bromide	ND	10	ug/kg	
74-87-3	Methyl Chloride	ND	5.0	ug/kg	
75-09-2	Methylene Chloride	ND	5.0	ug/kg	
78-93-3	Methyl Ethyl Ketone	ND	13	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	13	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/kg	
100-42-5	Styrene	ND	1.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/kg	

5.1.3  
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## Method Blank Summary

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Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K80-MB1	1K004193.D	1	02/17/15	SV	n/a	n/a	V1K80

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-2, LA3263-3, LA3263-8

CAS No.	Compound	Result	RL	Units	Q
127-18-4	Tetrachloroethylene	ND	1.0	ug/kg	
108-88-3	Toluene	ND	0.50	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/kg	
79-01-6	Trichloroethylene	ND	0.50	ug/kg	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/kg	
75-01-4	Vinyl Chloride	ND	0.50	ug/kg	
	m,p-Xylene	ND	2.0	ug/kg	
95-47-6	o-Xylene	ND	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	5.0	ug/kg	

### CAS No. Surrogate Recoveries

### Limits

17060-07-0	1,2-Dichloroethane-D4	111%	59-143%
2037-26-5	Toluene-D8	100%	52-159%
460-00-4	4-Bromofluorobenzene	102%	38-183%

5.1.3  
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# Blank Spike/Blank Spike Duplicate Summary

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Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K72-BS1	1K003793.D	1	02/09/15	NN	n/a	n/a	V1K72
V1K72-BSD1	1K003794.D	1	02/09/15	NN	n/a	n/a	V1K72

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-4, LA3263-5, LA3263-6, LA3263-7

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	62.7	125	56.6	113	10	40-153/30
71-43-2	Benzene	20	22.0	110	21.4	107	3	67-135/30
75-27-4	Bromodichloromethane	20	20.8	104	19.5	98	6	54-146/30
75-25-2	Bromoform	20	21.0	105	19.5	98	7	49-145/30
75-15-0	Carbon Disulfide	20	21.1	106	20.9	105	1	48-153/30
56-23-5	Carbon Tetrachloride	20	20.4	102	19.8	99	3	50-152/30
108-90-7	Chlorobenzene	20	20.9	105	20.1	101	4	57-144/30
75-00-3	Chloroethane	20	21.2	106	20.7	104	2	38-176/30
67-66-3	Chloroform	20	19.8	99	19.9	100	1	53-147/30
124-48-1	Dibromochloromethane	20	21.5	108	21.0	105	2	54-146/30
96-12-8	1,2-Dibromo-3-chloropropane	20	20.6	103	18.3	92	12	51-145/30
541-73-1	m-Dichlorobenzene	20	22.3	112	20.8	104	7	54-147/30
95-50-1	o-Dichlorobenzene	20	21.4	107	20.0	100	7	55-144/30
106-46-7	p-Dichlorobenzene	20	21.8	109	20.4	102	7	54-147/30
75-34-3	1,1-Dichloroethane	20	21.0	105	21.1	106	0	53-148/30
107-06-2	1,2-Dichloroethane	20	21.5	108	20.4	102	5	55-144/30
75-35-4	1,1-Dichloroethylene	20	19.8	99	19.9	100	1	49-153/30
156-59-2	cis-1,2-Dichloroethylene	20	20.9	105	20.2	101	3	52-147/30
156-60-5	trans-1,2-Dichloroethylene	20	21.0	105	21.0	105	0	51-152/30
540-59-0	1,2-Dichloroethene (total)	40	41.9	105	41.2	103	2	52-149/30
78-87-5	1,2-Dichloropropane	20	21.8	109	20.6	103	6	56-145/30
10061-01-5	cis-1,3-Dichloropropene	20	21.4	107	20.7	104	3	54-148/30
10061-02-6	trans-1,3-Dichloropropene	20	22.3	112	21.4	107	4	53-151/30
542-75-6	1,3-Dichloropropene (total)	40	43.7	109	42.1	105	4	50-150/30 <sup>a</sup>
100-41-4	Ethylbenzene	20	21.2	106	20.1	101	5	69-136/30
67-72-1	Hexachloroethane	20	20.1	101	18.4	92	9	46-150/30
78-83-1	Isobutyl alcohol	200	223	112	210	105	6	37-154/30
74-83-9	Methyl Bromide	20	27.7	139	25.6	128	8	40-170/30
74-87-3	Methyl Chloride	20	19.6	98	19.5	98	1	39-152/30
75-09-2	Methylene Chloride	20	20.4	102	19.9	100	2	51-142/30
78-93-3	Methyl Ethyl Ketone	50	53.3	107	50.4	101	6	48-150/30
108-10-1	4-Methyl-2-pentanone	50	55.6	111	49.3	99	12	50-151/30
1634-04-4	Methyl Tert Butyl Ether	20	21.2	106	20.3	102	4	61-142/30
100-42-5	Styrene	20	22.1	111	21.1	106	5	56-145/30
630-20-6	1,1,1,2-Tetrachloroethane	20	21.3	107	19.7	99	8	56-147/30
79-34-5	1,1,2,2-Tetrachloroethane	20	20.2	101	19.4	97	4	55-141/30

\* = Outside of Control Limits.

5.2.1  
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## Blank Spike/Blank Spike Duplicate Summary

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Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K72-BS1	1K003793.D	1	02/09/15	NN	n/a	n/a	V1K72
V1K72-BSD1	1K003794.D	1	02/09/15	NN	n/a	n/a	V1K72

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-4, LA3263-5, LA3263-6, LA3263-7

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethylene	20	20.5	103	20.0	100	2	54-156/30
108-88-3	Toluene	20	20.8	104	20.2	101	3	71-135/30
71-55-6	1,1,1-Trichloroethane	20	20.9	105	21.3	107	2	52-153/30
79-00-5	1,1,2-Trichloroethane	20	20.6	103	20.8	104	1	55-144/30
79-01-6	Trichloroethylene	20	20.9	105	20.9	105	0	56-151/30
75-69-4	Trichlorofluoromethane	20	18.7	94	18.6	93	1	36-171/30
75-01-4	Vinyl Chloride	20	20.1	101	19.6	98	3	42-155/30
	m,p-Xylene	40	43.3	108	41.5	104	4	70-140/30
95-47-6	o-Xylene	20	22.0	110	21.0	105	5	70-132/30
1330-20-7	Xylene (total)	60	65.2	109	62.4	104	4	69-138/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
17060-07-0	1,2-Dichloroethane-D4	94%	95%	59-143%
2037-26-5	Toluene-D8	100%	101%	52-159%
460-00-4	4-Bromofluorobenzene	101%	99%	38-183%

(a) Advisory control limits.

\* = Outside of Control Limits.

5.2.1  
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# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K78-BS2	1K004021.D	1	02/13/15	SV	n/a	n/a	V1K78
V1K78-BSD2	1K004022.D	1	02/13/15	SV	n/a	n/a	V1K78

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	56.6	113	50.8	102	11	40-153/30
71-43-2	Benzene	20	20.4	102	19.7	99	3	67-135/30
75-27-4	Bromodichloromethane	20	20.1	101	19.3	97	4	54-146/30
75-25-2	Bromoform	20	19.7	99	18.7	94	5	49-145/30
75-15-0	Carbon Disulfide	20	20.4	102	20.1	101	1	48-153/30
56-23-5	Carbon Tetrachloride	20	19.1	96	19.6	98	3	50-152/30
108-90-7	Chlorobenzene	20	19.7	99	19.2	96	3	57-144/30
75-00-3	Chloroethane	20	21.8	109	21.3	107	2	38-176/30
67-66-3	Chloroform	20	19.9	100	19.6	98	2	53-147/30
124-48-1	Dibromochloromethane	20	20.5	103	20.4	102	0	54-146/30
96-12-8	1,2-Dibromo-3-chloropropane	20	19.8	99	19.4	97	2	51-145/30
541-73-1	m-Dichlorobenzene	20	18.4	92	18.0	90	2	54-147/30
95-50-1	o-Dichlorobenzene	20	18.1	91	17.7	89	2	55-144/30
106-46-7	p-Dichlorobenzene	20	20.4	102	19.8	99	3	54-147/30
75-34-3	1,1-Dichloroethane	20	20.1	101	19.6	98	3	53-148/30
107-06-2	1,2-Dichloroethane	20	20.6	103	20.2	101	2	55-144/30
75-35-4	1,1-Dichloroethylene	20	19.9	100	20.2	101	1	49-153/30
156-59-2	cis-1,2-Dichloroethylene	20	20.0	100	20.0	100	0	52-147/30
156-60-5	trans-1,2-Dichloroethylene	20	20.1	101	20.3	102	1	51-152/30
540-59-0	1,2-Dichloroethene (total)	40	40.2	101	40.3	101	0	52-149/30
78-87-5	1,2-Dichloropropane	20	20.6	103	20.8	104	1	56-145/30
10061-01-5	cis-1,3-Dichloropropene	20	20.2	101	19.5	98	4	54-148/30
10061-02-6	trans-1,3-Dichloropropene	20	20.0	100	19.7	99	2	53-151/30
542-75-6	1,3-Dichloropropene (total)	40	40.2	101	39.1	98	3	50-150/30 <sup>a</sup>
100-41-4	Ethylbenzene	20	19.1	96	18.9	95	1	69-136/30
67-72-1	Hexachloroethane	20	18.0	90	18.3	92	2	46-150/30
78-83-1	Isobutyl alcohol	200	185	93	175	88	6	37-154/30
74-83-9	Methyl Bromide	20	21.6	108	22.3	112	3	40-170/30
74-87-3	Methyl Chloride	20	22.2	111	23.1	116	4	39-152/30
75-09-2	Methylene Chloride	20	22.1	111	21.3	107	4	51-142/30
78-93-3	Methyl Ethyl Ketone	50	52.6	105	52.5	105	0	48-150/30
108-10-1	4-Methyl-2-pentanone	50	52.3	105	49.9	100	5	50-151/30
1634-04-4	Methyl Tert Butyl Ether	20	21.4	107	20.8	104	3	61-142/30
100-42-5	Styrene	20	20.5	103	19.7	99	4	56-145/30
630-20-6	1,1,1,2-Tetrachloroethane	20	20.5	103	19.9	100	3	56-147/30
79-34-5	1,1,2,2-Tetrachloroethane	20	20.7	104	20.5	103	1	55-141/30

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

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Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K78-BS2	1K004021.D	1	02/13/15	SV	n/a	n/a	V1K78
V1K78-BSD2	1K004022.D	1	02/13/15	SV	n/a	n/a	V1K78

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethylene	20	18.2	91	17.7	89	3	54-156/30
108-88-3	Toluene	20	19.2	96	18.5	93	4	71-135/30
71-55-6	1,1,1-Trichloroethane	20	20.5	103	19.8	99	3	52-153/30
79-00-5	1,1,2-Trichloroethane	20	19.9	100	19.7	99	1	55-144/30
79-01-6	Trichloroethylene	20	19.0	95	18.3	92	4	56-151/30
75-69-4	Trichlorofluoromethane	20	20.9	105	20.6	103	1	36-171/30
75-01-4	Vinyl Chloride	20	20.6	103	20.2	101	2	42-155/30
	m,p-Xylene	40	39.9	100	39.3	98	2	70-140/30
95-47-6	o-Xylene	20	19.5	98	19.2	96	2	70-132/30
1330-20-7	Xylene (total)	60	59.5	99	58.5	98	2	69-138/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
17060-07-0	1,2-Dichloroethane-D4	99%	98%	59-143%
2037-26-5	Toluene-D8	101%	99%	52-159%
460-00-4	4-Bromofluorobenzene	101%	103%	38-183%

(a) Advisory control limits.

\* = Outside of Control Limits.

5.2.2  
5

# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K80-BS1	1K004191.D	1	02/17/15	SV	n/a	n/a	V1K80
V1K80-BSD1	1K004192.D	1	02/17/15	SV	n/a	n/a	V1K80

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-2, LA3263-3, LA3263-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	58.8	118	54.0	108	9	40-153/30
71-43-2	Benzene	20	21.2	106	19.0	95	11	67-135/30
75-27-4	Bromodichloromethane	20	21.0	105	19.1	96	9	54-146/30
75-25-2	Bromoform	20	20.7	104	19.0	95	9	49-145/30
75-15-0	Carbon Disulfide	20	20.7	104	19.1	96	8	48-153/30
56-23-5	Carbon Tetrachloride	20	20.9	105	18.1	91	14	50-152/30
108-90-7	Chlorobenzene	20	19.1	96	17.4	87	9	57-144/30
75-00-3	Chloroethane	20	22.1	111	20.0	100	10	38-176/30
67-66-3	Chloroform	20	21.5	108	19.8	99	8	53-147/30
124-48-1	Dibromochloromethane	20	21.7	109	19.7	99	10	54-146/30
96-12-8	1,2-Dibromo-3-chloropropane	20	20.8	104	20.0	100	4	51-145/30
541-73-1	m-Dichlorobenzene	20	20.2	101	18.6	93	8	54-147/30
95-50-1	o-Dichlorobenzene	20	20.5	103	18.9	95	8	55-144/30
106-46-7	p-Dichlorobenzene	20	20.1	101	18.2	91	10	54-147/30
75-34-3	1,1-Dichloroethane	20	22.2	111	20.0	100	10	53-148/30
107-06-2	1,2-Dichloroethane	20	21.2	106	18.9	95	11	55-144/30
75-35-4	1,1-Dichloroethylene	20	21.5	108	19.6	98	9	49-153/30
156-59-2	cis-1,2-Dichloroethylene	20	21.4	107	19.1	96	11	52-147/30
156-60-5	trans-1,2-Dichloroethylene	20	21.2	106	19.3	97	9	51-152/30
540-59-0	1,2-Dichloroethene (total)	40	42.6	107	38.4	96	10	52-149/30
78-87-5	1,2-Dichloropropane	20	22.0	110	19.7	99	11	56-145/30
10061-01-5	cis-1,3-Dichloropropene	20	21.8	109	19.1	96	13	54-148/30
10061-02-6	trans-1,3-Dichloropropene	20	21.5	108	19.8	99	8	53-151/30
542-75-6	1,3-Dichloropropene (total)	40	43.4	109	38.9	97	11	50-150/30 <sup>a</sup>
100-41-4	Ethylbenzene	20	19.5	98	17.8	89	9	69-136/30
67-72-1	Hexachloroethane	20	19.0	95	16.5	83	14	46-150/30
78-83-1	Isobutyl alcohol	200	216	108	184	92	16	37-154/30
74-83-9	Methyl Bromide	20	20.4	102	17.7	89	14	40-170/30
74-87-3	Methyl Chloride	20	20.6	103	18.6	93	10	39-152/30
75-09-2	Methylene Chloride	20	20.1	101	17.7	89	13	51-142/30
78-93-3	Methyl Ethyl Ketone	50	57.4	115	51.6	103	11	48-150/30
108-10-1	4-Methyl-2-pentanone	50	59.9	120	53.6	107	11	50-151/30
1634-04-4	Methyl Tert Butyl Ether	20	24.1	121	21.6	108	11	61-142/30
100-42-5	Styrene	20	21.5	108	19.5	98	10	56-145/30
630-20-6	1,1,1,2-Tetrachloroethane	20	20.8	104	19.4	97	7	56-147/30
79-34-5	1,1,2,2-Tetrachloroethane	20	22.8	114	20.8	104	9	55-141/30

\* = Outside of Control Limits.

## Blank Spike/Blank Spike Duplicate Summary

Page 2 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1K80-BS1	1K004191.D	1	02/17/15	SV	n/a	n/a	V1K80
V1K80-BSD1	1K004192.D	1	02/17/15	SV	n/a	n/a	V1K80

The QC reported here applies to the following samples:

Method: SW846 8260B

LA3263-2, LA3263-3, LA3263-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
127-18-4	Tetrachloroethylene	20	18.3	92	17.0	85	7	54-156/30
108-88-3	Toluene	20	20.9	105	19.0	95	10	71-135/30
71-55-6	1,1,1-Trichloroethane	20	21.2	106	18.8	94	12	52-153/30
79-00-5	1,1,2-Trichloroethane	20	21.1	106	19.4	97	8	55-144/30
79-01-6	Trichloroethylene	20	20.6	103	18.3	92	12	56-151/30
75-69-4	Trichlorofluoromethane	20	21.5	108	20.2	101	6	36-171/30
75-01-4	Vinyl Chloride	20	22.6	113	20.6	103	9	42-155/30
	m,p-Xylene	40	39.3	98	35.5	89	10	70-140/30
95-47-6	o-Xylene	20	20.7	104	18.5	93	11	70-132/30
1330-20-7	Xylene (total)	60	60.0	100	54.1	90	10	69-138/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
17060-07-0	1,2-Dichloroethane-D4	100%	101%	59-143%
2037-26-5	Toluene-D8	102%	102%	52-159%
460-00-4	4-Bromofluorobenzene	101%	101%	38-183%

(a) Advisory control limits.

\* = Outside of Control Limits.

5.2.3  
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## GC/MS Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



## Method Blank Summary

Page 1 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-MB	C0002337.D	1	02/09/15	HL	02/09/15	OP343	EC303

The QC reported here applies to the following samples:

Method: SW846 8270D

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	170	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	660	ug/kg	
100-02-7	4-Nitrophenol	ND	660	ug/kg	
87-86-5	Pentachlorophenol	ND	170	ug/kg	
108-95-2	Phenol	ND	170	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	ug/kg	
83-32-9	Acenaphthene	ND	10	ug/kg	
208-96-8	Acenaphthylene	ND	10	ug/kg	
62-53-3	Aniline	ND	170	ug/kg	
120-12-7	Anthracene	ND	10	ug/kg	
56-55-3	Benzo(a)anthracene	ND	10	ug/kg	
50-32-8	Benzo(a)pyrene	ND	10	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	10	ug/kg	
92-52-4	1,1'-Biphenyl	ND	170	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	10	ug/kg	
85-68-7	Butyl Benzyl Phthalate	ND	170	ug/kg	
106-47-8	4-Chloroaniline	ND	170	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	170	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	ug/kg	
218-01-9	Chrysene	ND	10	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	10	ug/kg	
132-64-9	Dibenzofuran	ND	170	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	170	ug/kg	
84-66-2	Diethyl Phthalate	ND	170	ug/kg	
131-11-3	Dimethyl Phthalate	ND	170	ug/kg	
117-84-0	Di-n-octyl Phthalate	ND	170	ug/kg	
99-65-0	1,3-Dinitrobenzene	ND	170	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	170	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	170	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	3.6	170	ug/kg	J
206-44-0	Fluoranthene	5.9	10	ug/kg	J

## Method Blank Summary

Page 2 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-MB	C0002337.D	1	02/09/15	HL	02/09/15	OP343	EC303

The QC reported here applies to the following samples:

Method: SW846 8270D

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	Result	RL	Units	Q
86-73-7	Fluorene	ND	10	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	ug/kg	
87-68-3	Hexachlorobutadiene	ND	170	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	660	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	10	ug/kg	
78-59-1	Isophorone	ND	170	ug/kg	
91-57-6	2-Methylnaphthalene	ND	10	ug/kg	
91-20-3	Naphthalene	ND	10	ug/kg	
88-74-4	2-Nitroaniline	ND	660	ug/kg	
99-09-2	3-Nitroaniline	ND	660	ug/kg	
100-01-6	4-Nitroaniline	ND	660	ug/kg	
98-95-3	Nitrobenzene	ND	170	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	ug/kg	
85-01-8	Phenanthrene	5.9	10	ug/kg	J
129-00-0	Pyrene	4.7	10	ug/kg	J
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	170	ug/kg	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	95% 15-133%
4165-62-2	Phenol-d5	93% 21-127%
118-79-6	2,4,6-Tribromophenol	95% 7-142%
4165-60-0	Nitrobenzene-d5	99% 43-128%
321-60-8	2-Fluorobiphenyl	99% 47-126%
1718-51-0	Terphenyl-d14	100% 56-124%

**Method Blank Summary**

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-MB	C0002372.D	1	02/11/15	HL	02/09/15	OP343	EC304

**The QC reported here applies to the following samples:****Method: SW846 8270D**

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	170	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	660	ug/kg	
100-02-7	4-Nitrophenol	ND	660	ug/kg	
87-86-5	Pentachlorophenol	ND	170	ug/kg	
108-95-2	Phenol	ND	170	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	ug/kg	
83-32-9	Acenaphthene	ND	10	ug/kg	
208-96-8	Acenaphthylene	ND	10	ug/kg	
62-53-3	Aniline	ND	170	ug/kg	
120-12-7	Anthracene	ND	10	ug/kg	
56-55-3	Benzo(a)anthracene	ND	10	ug/kg	
50-32-8	Benzo(a)pyrene	ND	10	ug/kg	
205-99-2	Benzo(b)fluoranthene	3.9	10	ug/kg	J
92-52-4	1,1'-Biphenyl	ND	170	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	10	ug/kg	
85-68-7	Butyl Benzyl Phthalate	ND	170	ug/kg	
106-47-8	4-Chloroaniline	ND	170	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	170	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	ug/kg	
218-01-9	Chrysene	8.2	10	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	ND	10	ug/kg	
132-64-9	Dibenzofuran	ND	170	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	170	ug/kg	
84-66-2	Diethyl Phthalate	ND	170	ug/kg	
131-11-3	Dimethyl Phthalate	ND	170	ug/kg	
117-84-0	Di-n-octyl Phthalate	ND	170	ug/kg	
99-65-0	1,3-Dinitrobenzene	ND	170	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	170	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	170	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	3.7	170	ug/kg	J
206-44-0	Fluoranthene	5.8	10	ug/kg	J

**Method Blank Summary**

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-MB	C0002372.D	1	02/11/15	HL	02/09/15	OP343	EC304

**The QC reported here applies to the following samples:****Method: SW846 8270D**

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

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CAS No.	Compound	Result	RL	Units	Q
86-73-7	Fluorene	ND	10	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	ug/kg	
87-68-3	Hexachlorobutadiene	ND	170	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	660	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	10	ug/kg	
78-59-1	Isophorone	ND	170	ug/kg	
91-57-6	2-Methylnaphthalene	ND	10	ug/kg	
91-20-3	Naphthalene	ND	10	ug/kg	
88-74-4	2-Nitroaniline	ND	660	ug/kg	
99-09-2	3-Nitroaniline	ND	660	ug/kg	
100-01-6	4-Nitroaniline	ND	660	ug/kg	
98-95-3	Nitrobenzene	ND	170	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	ug/kg	
85-01-8	Phenanthrene	5.6	10	ug/kg	J
129-00-0	Pyrene	4.5	10	ug/kg	J
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	170	ug/kg	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	95% 15-133%
4165-62-2	Phenol-d5	93% 21-127%
118-79-6	2,4,6-Tribromophenol	94% 7-142%
4165-60-0	Nitrobenzene-d5	98% 43-128%
321-60-8	2-Fluorobiphenyl	101% 47-126%
1718-51-0	Terphenyl-d14	99% 56-124%

**Blank Spike Summary**

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-BS	C0002338.D	1	02/09/15	HL	02/09/15	OP343	EC303

**The QC reported here applies to the following samples:****Method:** SW846 8270D

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	2500	2260	90	64-107
120-83-2	2,4-Dichlorophenol	2500	2280	91	68-109
105-67-9	2,4-Dimethylphenol	2500	2200	88	65-107
51-28-5	2,4-Dinitrophenol	2500	1810	72	29-119
100-02-7	4-Nitrophenol	2500	2120	85	59-118
87-86-5	Pentachlorophenol	2500	2160	86	52-109
108-95-2	Phenol	2500	2280	91	60-112
58-90-2	2,3,4,6-Tetrachlorophenol	2500	2390	96	66-112
95-95-4	2,4,5-Trichlorophenol	2500	2290	92	66-113
88-06-2	2,4,6-Trichlorophenol	2500	2270	91	67-112
83-32-9	Acenaphthene	2500	2220	89	68-103
208-96-8	Acenaphthylene	2500	2240	90	66-108
62-53-3	Aniline	2500	2340	94	65-115
120-12-7	Anthracene	2500	2220	89	66-112
56-55-3	Benzo(a)anthracene	2500	2130	85	61-106
50-32-8	Benzo(a)pyrene	2500	2150	86	71-112
205-99-2	Benzo(b)fluoranthene	2500	2150	86	66-108
92-52-4	1,1'-Biphenyl	2500	2280	91	62-114
207-08-9	Benzo(k)fluoranthene	2500	2150	86	64-116
85-68-7	Butyl Benzyl Phthalate	2500	2230	89	66-119
106-47-8	4-Chloroaniline	2500	2340	94	63-109
111-44-4	bis(2-Chloroethyl)ether	2500	2340	94	62-111
108-60-1	bis(2-Chloroisopropyl)ether	2500	2240	90	64-107
91-58-7	2-Chloronaphthalene	2500	2250	90	67-103
218-01-9	Chrysene	2500	2230	89	66-106
53-70-3	Dibenzo(a,h)anthracene	2500	2110	84	49-117
132-64-9	Dibenzofuran	2500	2210	88	67-106
91-94-1	3,3'-Dichlorobenzidine	2500	2140	86	66-113
84-66-2	Diethyl Phthalate	2500	2250	90	67-111
131-11-3	Dimethyl Phthalate	2500	2230	89	68-106
117-84-0	Di-n-octyl Phthalate	2500	2170	87	62-117
99-65-0	1,3-Dinitrobenzene	2500	2380	95	65-116
121-14-2	2,4-Dinitrotoluene	2500	2360	94	64-117
606-20-2	2,6-Dinitrotoluene	2500	2190	88	69-111
117-81-7	bis(2-Ethylhexyl)phthalate	2500	2230	89	63-119
206-44-0	Fluoranthene	2500	2270	91	65-112

\* = Outside of Control Limits.

**Blank Spike Summary**

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-BS	C0002338.D	1	02/09/15	HL	02/09/15	OP343	EC303

**The QC reported here applies to the following samples:****Method:** SW846 8270D

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
86-73-7	Fluorene	2500	2210	88	67-108
118-74-1	Hexachlorobenzene	2500	2250	90	64-109
87-68-3	Hexachlorobutadiene	2500	2270	91	64-108
77-47-4	Hexachlorocyclopentadiene	2500	2130	85	49-117
193-39-5	Indeno(1,2,3-cd)pyrene	2500	2130	85	68-110
78-59-1	Isophorone	2500	2200	88	65-105
91-57-6	2-Methylnaphthalene	2500	2210	88	65-107
91-20-3	Naphthalene	2500	2240	90	64-107
88-74-4	2-Nitroaniline	2500	2360	94	65-116
99-09-2	3-Nitroaniline	2500	2130	85	69-112
100-01-6	4-Nitroaniline	2500	2130	85	61-113
98-95-3	Nitrobenzene	2500	2260	90	65-109
621-64-7	N-Nitroso-di-n-propylamine	2500	2080	83	64-112
86-30-6	N-Nitrosodiphenylamine	2500	2270	91	66-111
85-01-8	Phenanthrene	2500	2200	88	63-110
129-00-0	Pyrene	2500	2240	90	60-112
95-94-3	1,2,4,5-Tetrachlorobenzene	2500	2260	90	65-109
120-82-1	1,2,4-Trichlorobenzene	2500	2260	90	66-104

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	92%	15-133%
4165-62-2	Phenol-d5	91%	21-127%
118-79-6	2,4,6-Tribromophenol	96%	7-142%
4165-60-0	Nitrobenzene-d5	96%	43-128%
321-60-8	2-Fluorobiphenyl	96%	47-126%
1718-51-0	Terphenyl-d14	95%	56-124%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-MS	C0002341.D	1	02/09/15	HL	02/09/15	OP343	EC303
OP343-MSD	C0002342.D	1	02/09/15	HL	02/09/15	OP343	EC303
LA3246-1Q	C0002340.D	1	02/09/15	HL	02/09/15	OP343	EC303

The QC reported here applies to the following samples:

Method: SW846 8270D

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	LA3246-1Q		Spike	MS	MS	Spike	MSD	MSD	RPD	Limits Rec/RPD
		ug/kg	Q	ug/kg	ug/kg	%	ug/kg	ug/kg	%		
95-57-8	2-Chlorophenol	ND	2490	1960	79	2490	2080	84	6	32-130/67	
120-83-2	2,4-Dichlorophenol	ND	2490	1920	77	2490	2030	82	6	1-166/54	
105-67-9	2,4-Dimethylphenol	ND	2490	1870	75	2490	2000	80	7	21-135/109	
51-28-5	2,4-Dinitrophenol	ND	2490	639	26	2490	616	25	4	1-140/162	
100-02-7	4-Nitrophenol	ND	2490	1720	69	2490	1750	70	2	25-135/48	
87-86-5	Pentachlorophenol	ND	2490	1770	71	2490	1780	72	1	5-128/81	
108-95-2	Phenol	ND	2490	1960	79	2490	2060	83	5	28-128/62	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	2490	1910	77	2490	2050	82	7	31-126/56	
95-95-4	2,4,5-Trichlorophenol	ND	2490	1880	76	2490	1950	78	4	31-129/63	
88-06-2	2,4,6-Trichlorophenol	ND	2490	1870	75	2490	1990	80	6	30-132/61	
83-32-9	Acenaphthene	ND	2490	1820	73	2490	1940	78	6	36-126/46	
208-96-8	Acenaphthylene	ND	2490	1830	74	2490	1960	79	7	40-129/49	
62-53-3	Aniline	ND	2490	1950	78	2490	1980	80	2	38-133/42	
120-12-7	Anthracene	ND	2490	1810	73	2490	1890	76	4	35-133/48	
56-55-3	Benzo(a)anthracene	ND	2490	1750	70	2490	1830	74	4	31-130/53	
50-32-8	Benzo(a)pyrene	ND	2490	1730	70	2490	1850	74	7	23-144/55	
205-99-2	Benzo(b)fluoranthene	ND	2490	1710	69	2490	1810	73	6	31-133/55	
92-52-4	1,1'-Biphenyl	2.2	2490	1850	74	2490	2000	80	8	39-124/53	
207-08-9	Benzo(k)fluoranthene	ND	2490	1760	71	2490	1860	75	6	34-140/55	
85-68-7	Butyl Benzyl Phthalate	ND	2490	1810	73	2490	1910	77	5	23-146/107	
106-47-8	4-Chloroaniline	ND	2490	1920	77	2490	1680	68	13	18-135/65	
111-44-4	bis(2-Chloroethyl)ether	ND	2490	1950	78	2490	1980	80	2	25-138/71	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2490	1880	76	2490	1990	80	6	39-127/47	
91-58-7	2-Chloronaphthalene	ND	2490	1850	74	2490	1970	79	6	42-125/53	
218-01-9	Chrysene	ND	2490	1800	72	2490	1920	77	6	18-153/55	
53-70-3	Dibenzo(a,h)anthracene	ND	2490	1700	68	2490	1780	72	5	20-140/70	
132-64-9	Dibenzofuran	ND	2490	1800	72	2490	1940	78	7	34-128/51	
91-94-1	3,3'-Dichlorobenzidine	ND	2490	1730	70	2490	1330	53	26	1-153/80	
84-66-2	Diethyl Phthalate	3.9	2490	1800	72	2490	1920	77	6	31-137/57	
131-11-3	Dimethyl Phthalate	ND	2490	1800	72	2490	1900	76	5	28-138/65	
117-84-0	Di-n-octyl Phthalate	ND	2490	1750	70	2490	1850	74	6	21-145/109	
99-65-0	1,3-Dinitrobenzene	ND	2490	1930	78	2490	1970	79	2	50-125/25	
121-14-2	2,4-Dinitrotoluene	ND	2490	1920	77	2490	1990	80	4	30-136/66	
606-20-2	2,6-Dinitrotoluene	ND	2490	1800	72	2490	1910	77	6	36-131/60	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2490	1840	74	2490	1910	77	4	26-149/63	
206-44-0	Fluoranthene	3.2	2490	1830	73	2490	1900	76	4	31-132/51	

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 2

Job Number: LA3263

Account: PPMLAM PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP343-MS	C0002341.D	1	02/09/15	HL	02/09/15	OP343	EC303
OP343-MSD	C0002342.D	1	02/09/15	HL	02/09/15	OP343	EC303
LA3246-1Q	C0002340.D	1	02/09/15	HL	02/09/15	OP343	EC303

The QC reported here applies to the following samples:

Method: SW846 8270D

LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

CAS No.	Compound	LA3246-1Q		Spike	MS	MS	Spike	MSD	MSD	RPD	Limits Rec/RPD
		ug/kg	Q	ug/kg	ug/kg	%	ug/kg	ug/kg	%		
86-73-7	Fluorene	ND		2490	1790	72	2490	1900	76	6	33-133/47
118-74-1	Hexachlorobenzene	ND		2490	1810	73	2490	1900	76	5	41-125/52
87-68-3	Hexachlorobutadiene	ND		2490	1930	78	2490	2060	83	7	26-135/66
77-47-4	Hexachlorocyclopentadiene	ND		2490	1240	50	2490	1180	47	5	1-149/98
193-39-5	Indeno(1,2,3-cd)pyrene	ND		2490	1710	69	2490	1800	72	5	23-136/56
78-59-1	Isophorone	ND		2490	1850	74	2490	1970	79	6	35-134/62
91-57-6	2-Methylnaphthalene	4.7		2490	1830	73	2490	1980	79	8	43-124/45
91-20-3	Naphthalene	8.3		2490	1920	77	2490	2040	82	6	44-123/47
88-74-4	2-Nitroaniline	ND		2490	1980	80	2490	2150	86	8	48-128/57
99-09-2	3-Nitroaniline	ND		2490	1730	70	2490	1240	50	33	49-127/51
100-01-6	4-Nitroaniline	ND		2490	1710	69	2490	1530	62	11	37-139/58
98-95-3	Nitrobenzene	ND		2490	1930	78	2490	2050	82	6	47-125/48
621-64-7	N-Nitroso-di-n-propylamine	ND		2490	1730	70	2490	1840	74	6	27-142/73
86-30-6	N-Nitrosodiphenylamine	ND		2490	1850	74	2490	1820	73	2	38-128/52
85-01-8	Phenanthrene	7.0		2490	1800	72	2490	1870	75	4	30-132/46
129-00-0	Pyrene	ND		2490	1830	74	2490	1950	78	6	32-139/53
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		2490	1880	76	2490	2030	82	8	52-121/24
120-82-1	1,2,4-Trichlorobenzene	ND		2490	1940	78	2490	2050	82	6	51-120/28

CAS No.	Surrogate Recoveries	MS	MSD	LA3246-1Q	Limits
367-12-4	2-Fluorophenol	83%	83%	61%	15-133%
4165-62-2	Phenol-d5	80%	82%	60%	21-127%
118-79-6	2,4,6-Tribromophenol	81%	81%	60%	7-142%
4165-60-0	Nitrobenzene-d5	82%	85%	62%	43-128%
321-60-8	2-Fluorobiphenyl	80%	84%	65%	47-126%
1718-51-0	Terphenyl-d14	79%	82%	64%	56-124%

\* = Outside of Control Limits.



## Metals Analysis

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### QC Data Summaries

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7

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: LA3263  
Account: PPMLAM - PPM Consultants  
Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP301  
Matrix Type: SOLID

Methods: SW846 6010B  
Units: mg/kg

Prep Date:

02/10/15

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	3.6	7		
Antimony	1.0	.23	.94		
Arsenic	1.0	.21	.88	-0.44	<1.0
Barium	1.0	.02	.1	0.090	<1.0
Beryllium	1.0	.01	.036		
Boron	10	.05	.2		
Cadmium	1.0	.03	.075	0.0	<1.0
Calcium	10	.45	7.6		
Chromium	1.0	.04	.74	0.060	<1.0
Cobalt	1.0	.03	.088		
Copper	1.0	.1	.2		
Iron	10	.71	2.6		
Lead	1.0	.11	.34	0.10	<1.0
Lithium	1.0	.19	.12		
Magnesium	10	.83	7.6		
Manganese	1.0	.01	.15		
Molybdenum	1.0	.04	.12		
Nickel	1.0	.05	.13		
Potassium	10	7.7	2.8		
Selenium	1.0	.24	.71	0.10	<1.0
Silver	1.0	.07	.14	0.0	<1.0
Sodium	10	2.6	2.4		
Strontium	1.0	.01	.068		
Thallium	1.0	.16	.98		
Tin	1.0	.11	1		
Titanium	1.0	.01	.055		
Vanadium	1.0	.1	.36		
Zinc	1.0	.48	.85		

Associated samples MP301: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results < IDL are shown as zero for calculation purposes

(\* ) Outside of QC limits  
(anr) Analyte not requested

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP301  
Matrix Type: SOLIDMethods: SW846 6010B  
Units: mg/kg

Prep Date: 02/10/15

Metal	LA3275-3 Original MS	Spikelot ICPSPike	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	4.3	103	100	99.3 75-125
Barium	934	216	100	-753.0(a) 75-125
Beryllium				
Boron				
Cadmium	0.0	93.3	100	93.3 75-125
Calcium				
Chromium	12.5	117	100	103.5 75-125
Cobalt	anr			
Copper				
Iron				
Lead	7.3	112	100	104.7 75-125
Lithium				
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	0.0	99.1	100	99.1 75-125
Silver	0.090	103	100	102.9 75-125
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP301: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP301  
Matrix Type: SOLIDMethods: SW846 6010B  
Units: mg/kg

Prep Date:

02/10/15

Metal	LA3275-3 Original	MSD	Spikelot ICPSPike	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	4.3	94.7	100	91.0	8.4	20
Barium	934	240	100	-729.0(a)	10.5	20
Beryllium						
Boron						
Cadmium	0.0	92.1	100	92.1	1.3	20
Calcium						
Chromium	12.5	106	100	92.5	9.9	20
Cobalt	anr					
Copper						
Iron						
Lead	7.3	98.9	100	91.6	12.4	20
Lithium						
Magnesium						
Manganese						
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	0.0	86.4	100	86.4	13.7	20
Silver	0.090	99.1	100	99.0	3.9	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP301: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP301  
Matrix Type: SOLIDMethods: SW846 6010B  
Units: mg/kg

Prep Date:

02/10/15

Metal	LCS Result	Spikelot LCSMETALS1%	QC Rec	QC Limits
Aluminum				
Antimony				
Arsenic	145	139	104.3	78-122
Barium	216	203	106.4	83-118
Beryllium				
Boron				
Cadmium	99.7	96	103.9	82-118
Calcium				
Chromium	144	136	105.9	79-121
Cobalt	anr			
Copper				
Iron				
Lead	135	133	101.5	82-119
Lithium				
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	183	177	103.4	77-123
Silver	46.1	40.2	114.7	75-125
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP301: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

## SERIAL DILUTION RESULTS SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP301  
Matrix Type: SOLIDMethods: SW846 6010B  
Units: ug/l

Prep Date: 02/10/15

Metal	LA3275-3 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	43.2	40.0	9.6	0-10
Barium	9340	10200	5.1	0-10
Beryllium				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	125	166	23.1*(a)	0-10
Cobalt	anr			
Copper				
Iron				
Lead	74.5	69.5	4.9	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.900	4.00	344.4(b)	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP301: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) High RPD due to possible sample nonhomogeneity or matrix interference.

(b) Percent difference acceptable due to low initial sample concentration (&lt; 50 times IDL).

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: LA3263  
Account: PPMLAM - PPM Consultants  
Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP313  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: mg/kg

Prep Date: 02/12/15

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.10	.009	.0077	-0.011	<0.10

Associated samples MP313: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

7.2.1  
7

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP313  
Matrix Type: SOLIDMethods: SW846 7471B  
Units: mg/kg

Prep Date: 02/12/15

Metal	LA3235-1 Original MS	Spikelot HGSPIKE1	QC % Rec	QC Limits
Mercury	0.0	0.58	0.75	77.3 75-125

Associated samples MP313: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

7.2.2  
7

## MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP313  
Matrix Type: SOLIDMethods: SW846 7471B  
Units: mg/kg

Prep Date:

02/12/15

Metal	LA3235-1 Original	Spikelot HGSPIKE1	MSD % Rec	QC RPD	QC Limit
Mercury	0.0	0.52	0.75	69.3N(a)	10.9 20

Associated samples MP313: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference or sample non-homogeneity.

7.2.2  
7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP313  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: mg/kg

Prep Date: 02/12/15

Metal	LCS Result	Spikelot LCSHG1	QC % Rec	QC Limits
Mercury	13.2	12.9	102.3	73-127

Associated samples MP313: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

7.2.3  
7

SERIAL DILUTION RESULTS SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP313  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: ug/l

Prep Date: 02/12/15

Metal	LA3235-1	Original	SDL 1:5	%DIF	QC	Limits
Mercury	0.00	0.00	NC		0-	

Associated samples MP313: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

7.2.4  
7

## POST DIGESTATE SPIKE SUMMARY

Login Number: LA3263

Account: PPMLAM - PPM Consultants

Project: (REIMB)City of Ruston Former Landfill, Ruston, LA

QC Batch ID: MP313  
Matrix Type: SOLIDMethods: SW846 7471B  
Units: ug/l

Prep Date:

02/12/15

Metal	Sample ml	Final ml	LA3235-1 Raw	PS Corr.** ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Mercury	2	10		5.494	0.02	2.5	5	109.9	85-115

Associated samples MP313: LA3263-1, LA3263-2, LA3263-3, LA3263-4, LA3263-5, LA3263-6, LA3263-7, LA3263-8

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(\*\*) Corr. sample result = Raw \* (sample volume / final volume)

(anr) Analyte not requested

7.2.5  
7

## **APPENDIX E – ONLINE SPOC NOTIFICATION**

**Incident Report Form****Thank You****Please print this page for your records.**Your confirmation number is: **460V 13820**

Reporting Company Information		
Date/Time Reported: 2/27/2015 12:39:51 PM		
Type of Incident: Spill Incident/Release		
First Name:	Jonathan	
Last Name:	Roger	
Title:	Geologist	
Company:	PPM Consultants	
Phone #:	3183237270	
Mailing Address:	1600 Lamy Ln	
City:	Monroe	
State:	LA	
Zip:	71201	
Email:	jon.roger@ppmco.com	
Responsible Party Information		
Responsible Party Company Name: City of Ruston		
Physical Location of Incident including City, State, Zip: Former Landfill- intersection of McDonald Avenue and Beacon Light Road		
Mailing Address (if different from above): P. O. Box 2069		
City: Ruston	State: LA	Zip: 71270
Date of Discharge:	2/27/15	
Time Noticed:	Began: 0800 Ended: 0800	
Parish:	Lincoln	
Media Affected:	Soil	
If water, name of nearest water body: N/A		
If air, note wind direction and weather conditions: N/A		
Description of Release/Spill		
Product/material release and quantity: Unknown quantity Arsenic		
Description of release: During Phase II ESA activities, concentrations of arsenic in soil were revealed to be above the LDEQ		

RECAP Screening Standards. The concentrations were averaged. The mean concentration was revealed to be below the applicable standard. PPM will submit the Phase II ESA Report as written notification of this incident.

How was the spill contained?: N/A

How was the spill cleaned?: N/A

Directions for Reaching the Site

Travel east along McDonald Avenue to the intersection with Beacon Light Road. The subject property is to the northeast of said intersection.

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