



## Department of Toxic Substances Control

**Matthew Rodriguez**  
Secretary for  
Environmental Protection

Barbara A. Lee, Director  
8800 Cal Center Drive  
Sacramento, California 95826-3200

**Edmund G. Brown Jr.**  
Governor

May 11, 2016

Robert Laughton, LEED AP  
Director, Environmental Health and Safety  
Los Angeles Unified School District  
333 South Beaudry Avenue, Floor 21  
Los Angeles, CA 90017

RESULTS OF SOIL SAMPLING AT HUNTINGTON PARK SCHOOL, 6055 CORONA AVENUE, HUNTINGTON PARK, CALIFORNIA 90255; EXPANDED AREA SCHOOL SCH-14

Dear Mr. Laughton,

Enclosed with this letter are the results of the soil sampling conducted at 11 Los Angeles County Unified School District Schools. This letter is specific to Huntington Park School (Expanded Area School SCH-14) located at 6055 Corona Avenue, Huntington Park, California (Property). Avocet Environmental, Incorporated (Avocet) conducted that soil sampling on July 7, 2015 in accordance with the DTSC-approved sampling work plan dated July 26, 2014.<sup>1</sup> The laboratory results of analysis for lead in soils collected on the Property did not reveal concentrations above 80 parts-per-million; the Department's current level of concern. Based on the laboratory results, additional soil sampling and/or cleanup are not warranted for the Property.

If you have any questions regarding this letter, please contact me at (916) 255-3630 or at [Peter.Ruttan@dtsc.ca.gov](mailto:Peter.Ruttan@dtsc.ca.gov).

Sincerely,

Peter Ruttan  
Project Manager  
Legacy Landfills Office

Attachments (3)

cc: (via email)  
Mr. Pat Schanen, LAUSD  
Mr. Bill Piazza, LAUSD

<sup>1</sup> Advanced GeoServices Corporation; "Addendum to the November 15, 2013 Work Plan for Off-site Soil Sampling", July 26, 2014.



**ATTACHMENT 1**

**July 2015 Soil Sampling Field Activities Report  
Los Angeles Unified School District Schools**

**July 31, 2015**



July 31, 2015

2013-3007-09

Pat Schanen, Environmental Health Manager  
Office of Environmental Health and Safety  
Los Angeles Unified School District  
333 South Beaudry Avenue, 28<sup>th</sup> Floor  
Los Angeles, CA 90017

RE: Revised Report on LAUSD K-12 School Sampling  
Select Areas of Maywood, Huntington Park and Los Angeles, California

Dear Mr. Schanen:

Enclosed is a revised report on the school sampling that Advanced GeoServices performed on behalf of Exide Technologies. The comments that you provided on the report dated July 23 have been incorporated, and a revised table and report is attached. This report is also being provided to the California Department of Toxic Substances Control.

If you have any further questions, please contact me at 610-840-9145 or by email at [bforslund@advancedgeoservices.com](mailto:bforslund@advancedgeoservices.com).

Respectfully submitted,

ADVANCED GEOSERVICES CORP.



Barbara L. Forslund  
Consultant

BLF:vm

cc: Peter Ruttan, DTSC  
Eileen Ma, LAUSD  
Jay Golida, LAUSD  
Paul Straman, Advanced GeoServices  
Fred Ganster, Exide  
John Hogart, Exide  
Tom Strang, Exide  
Randy Visser, Sheppard Mullin

EXIDE VERNON  
2014 - 2015 Residential Soil Sampling  
Lead Results

Sample Location(s): SCH-06 through SCH 10

Sample Date: 7/6/2015

Sample Depth	SCH-06	SCH-07	SCH-08	SCH-09	SCH-10
0-1"	29.2	81.7	52.7	68.6	11
1-3"	17	87.3	37.9	70.1	13.8
3-6"	17.6	81.5	47.6	112	13.1
6-12"	43.6	66.4	75.6	52.6	16.2
12-18"	13.6	17.1	25.8	29.9	10.2

Samples are composites

All lead results reported in mg/kg

Sample Location(s): SCH-11 through SCH 16

Sample Date: 7/7/2015

Sample Depth	SCH-11	SCH-12	SCH-13	SCH-14	SCH-15	SCH-16
0-1"	155	12.4	88.1	31.3	43.1	39.5
1-3"	207	19	74.8	19.4	52.2	42.1
3-6"	44.6	28	70.4	17.7	33.4	70.7
6-12"	43.6	27.1	45.3	16.5	23.5	48
12-18"	15.6	12.7	22.1	19.4	16.6	18.4

Samples are composites

All lead results reported in mg/kg

NOTE: Sample locations SCH-01 through SCH-05 are at private schools not owned by LAUSD





July 30, 2015

Project No. 1325.007

Ms. Barbara Forslund, P.E.  
ADVANCED GEOSERVICES CORP.  
1055 Andrew Drive, Suite A  
West Chester, Pennsylvania 19380

**July 2015 Soil Sampling Field Activities Report**  
**Los Angeles Unified School District Schools**  
Los Angeles County, California

Dear Ms. Forslund:

This letter report documents the soil sampling procedures at 11 Los Angeles Unified School District (LAUSD) schools on July 6 and 7, 2015. The work described herein was performed in association with the Exide Technologies offsite subsurface soil sampling program, which has analyzed lead concentrations on private and public properties throughout many parts of East Los Angeles, Maywood, Huntington Park, and the surrounding communities. Specifics regarding the names and addresses of the individual schools, among other details, are summarized in Table 1. A site vicinity map identifying the locations of the schools is included as Figure 1.

**REGULATORY OVERSIGHT**

Access to the school properties was made possible by Mr. Bill Piazza, LAUSD's environmental assessment coordinator. Mr. Piazza also managed interactions with school personnel and provided general site supervision on behalf of the LAUSD. Regulatory oversight and public relations were provided by Mr. Peter Ruttan of the California Department of Toxic Substances Control (DTSC). Mr. Piazza and Mr. Ruttan observed the sampling crew at each school to verify the suitability of sample locations and to ensure proper sampling protocol in accordance with Advanced GeoServices Corp.'s (AGC's) November 15, 2013 Work Plan and its July 26, 2014 Addendum.

**FIELD METHODS**

Avocet was retained by AGC to complete a composite soil sampling program that involved the collection of discrete soil samples from the approximate depths of 1, 3, 6, 12, and 18 inches below ground surface (bgs) at five unique boring locations at each school. For every school, five composite samples, one from each depth interval, were prepared and submitted for chemical analysis. The samples were collected from grassy play areas, sports fields, or other common areas where students are likely to come into contact with exposed soil. For properties with limited exposed soil or where the playground is predominantly asphalt, samples were collected inside of tree wells. The approximate locations of the soil samples collected at each of the schools are illustrated in Figures 2 through 12.

## July 2015 Soil Sampling Field Activities Report

Los Angeles Unified School District Schools  
Los Angeles County, California

Page 2  
July 30, 2015

Representative soil samples were collected at depth using either a freshly decontaminated trowel or hand auger. The soil was transferred directly into plastic bags that were then sealed and labeled as discrete samples with the sample identification code, date, and the time at which the sample was collected. Each shallow boring was backfilled upon completion with soil cuttings, tamped for light compaction, and topped with planting soil to match grade. Sampling tools were decontaminated between each boring by washing with laboratory-grade, phosphate-free detergent and then rinsed using deionized water. Fresh nitrile gloves were donned by field personnel between each boring and as necessary to prevent cross-contamination between soil samples.

The composite samples submitted for laboratory analysis were collected by measuring equal volumes of soil from each of the five discrete soil samples collected at a given depth throughout the school and then combined and thoroughly mixed in a sealed plastic bag. An aliquot of the mixed composite sample was then transferred into a sterile plastic bag that was sealed, labeled, placed in a cooler, and delivered to the analytical laboratory that same day. In all, five composite samples were collected from each school for laboratory testing, one for each depth interval listed above.

The composite soil samples were submitted, under appropriate chain-of-custody procedures, to Eurofins Calscience, a certified environmental laboratory located in Garden Grove, California, for analysis for lead using U.S. Environmental Protection Agency (EPA) Method 6010B. The remaining discrete soil samples were placed in a labeled container at Exide pending possible future analysis.

In addition to the soil samples, two equipment blank samples, one at the end of each work day, were collected by capturing analytical laboratory-provided water poured across a previously decontaminated hand trowel. The equipment blank samples were also analyzed for lead using EPA Method 6010B.

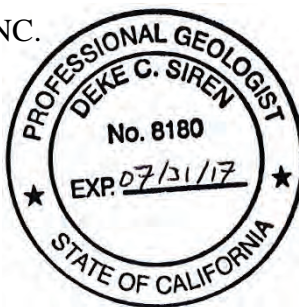
It should be noted that one discrete sample from the 18-inch depth interval (Location 5D) at Eastman Avenue Elementary School could not be collected due to tree roots. Therefore, the composite sample from the 18-inch depth interval (SCH-11-18) is comprised of equal volumes of soil from four rather than five discrete sample locations.

Respectfully submitted,

AVOCET ENVIRONMENTAL, INC.



Deke Siren, P.G.  
Project Manager



DCS:sh  
Attachments

P:\1325 AGC-Exide\_Vernon\007\_Offsite Soil Sampling\LAUSD Sch Sites\SupportingDocs\LAUSD Sampling Procedures\_2015-07-30.docx





# *Tables*

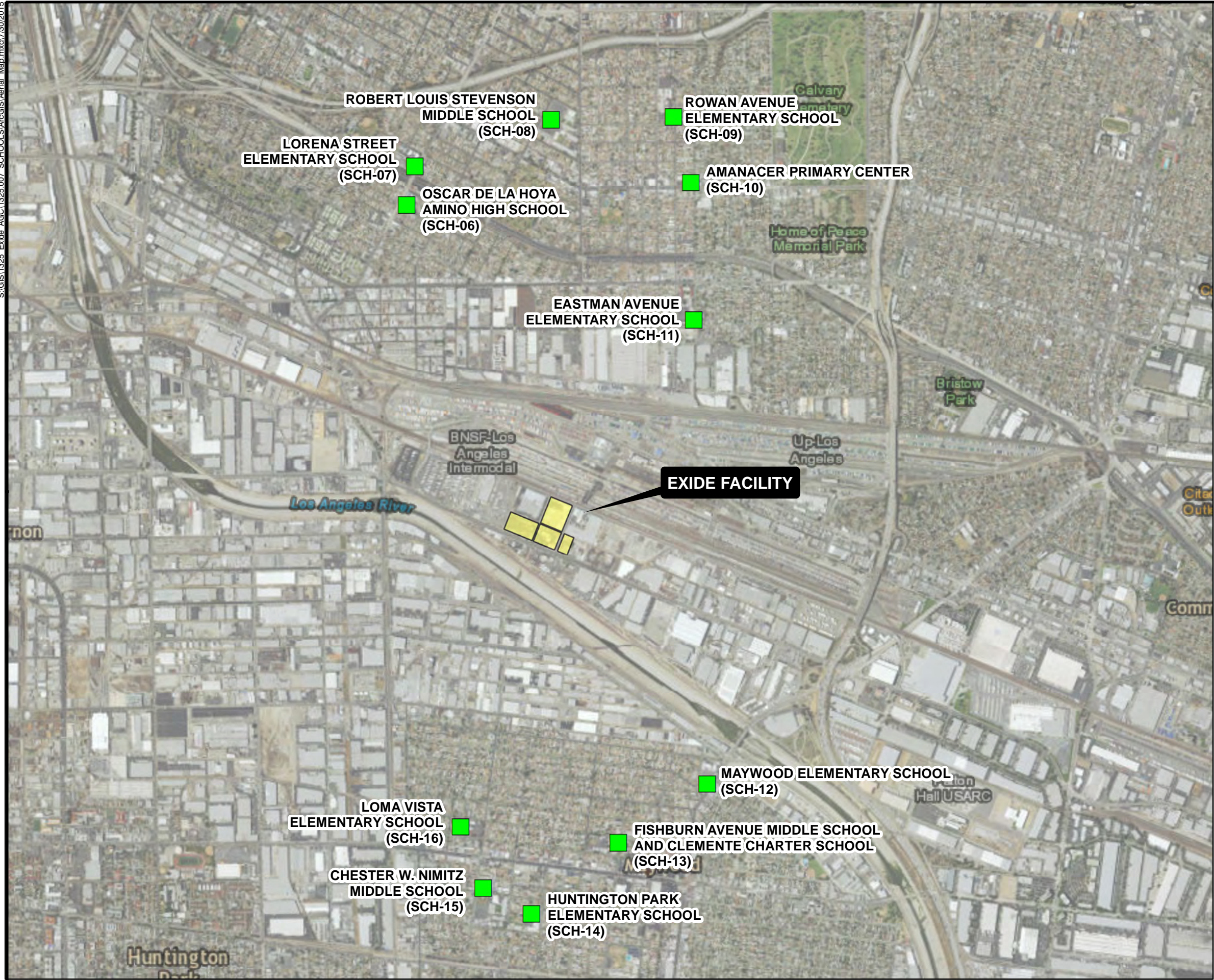
**Table 1**  
**List of LAUSD Schools Sampled**  
Los Angeles County, California

<b>School ID</b> (for sampling purposes)	<b>School Name</b>	<b>Address</b>	<b>Date Sampled</b>	<b>Number of Samples</b>
SCH-06	Oscar De La Hoya Animo High School	1114 South Lorena Street Los Angeles, CA 90023	07/06/15	5
SCH-07	Lorena Street School	1015 South Lorena Street Los Angeles, CA 90023	07/06/15	5
SCH-08	Robert Louis Stevenson Middle School	725 South Indiana Street Los Angeles, CA 90023	07/06/15	5
SCH-09	Rowan Avenue School	600 South Rowan Avenue Los Angeles, CA 90023	07/06/15	5
SCH-10	Amanecer Primary Center	832 South Eastman Avenue Los Angeles, CA 90023	07/06/15	5
SCH-11	Eastman Avenue School	4112 East Olympic Boulevard Los Angeles, CA 90023	07/07/15	5
SCH-12	Maywood School	5200 Cudahy Avenue Maywood, CA 90270	07/07/15	5
SCH-13	Fishburn Avenue Middle School and Clemente Charter	5701 Fishburn Avenue Maywood, CA 90270	07/07/15	5
SCH-14	Huntington Park School	6055 Corona Avenue Huntington Park, CA 90255	07/07/15	5
SCH-15	Chester W. Nimitz Middle School	6021 Carmelita Avenue Huntington Park, CA 90255	07/07/15	5
SCH-16	Loma Vista	3629 East 58 <sup>th</sup> Street Maywood, CA 90270	07/07/15	5


Note: School IDs SCH-01 through SCH-05 are for schools not owned by LAUSD


# *Figures*





**EXPLANATION**

 School Location

 Exide Property

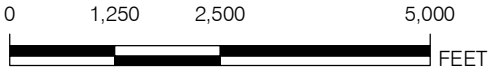


FIGURE 1  
**LOS ANGELES UNIFIED SCHOOL  
DISTRICT SITE VICINITY MAP**  
EXIDE TECHNOLOGIES  
2700 SOUTH INDIANA STREET  
VERNON, CALIFORNIA







**EXPLANATION**

■ Sample Location

↔ 68' ↔ Distance in Feet

NOTE:  
FIGURE NOT TO SCALE

FIGURE 2

**OSCAR DE LA HOYA  
AMINO CHARTER SCHOOL**

EXIDE TECHNOLOGIES  
2700 SOUTH INDIANA STREET  
VERNON, CALIFORNIA







**EXPLANATION**

■ Sample Location

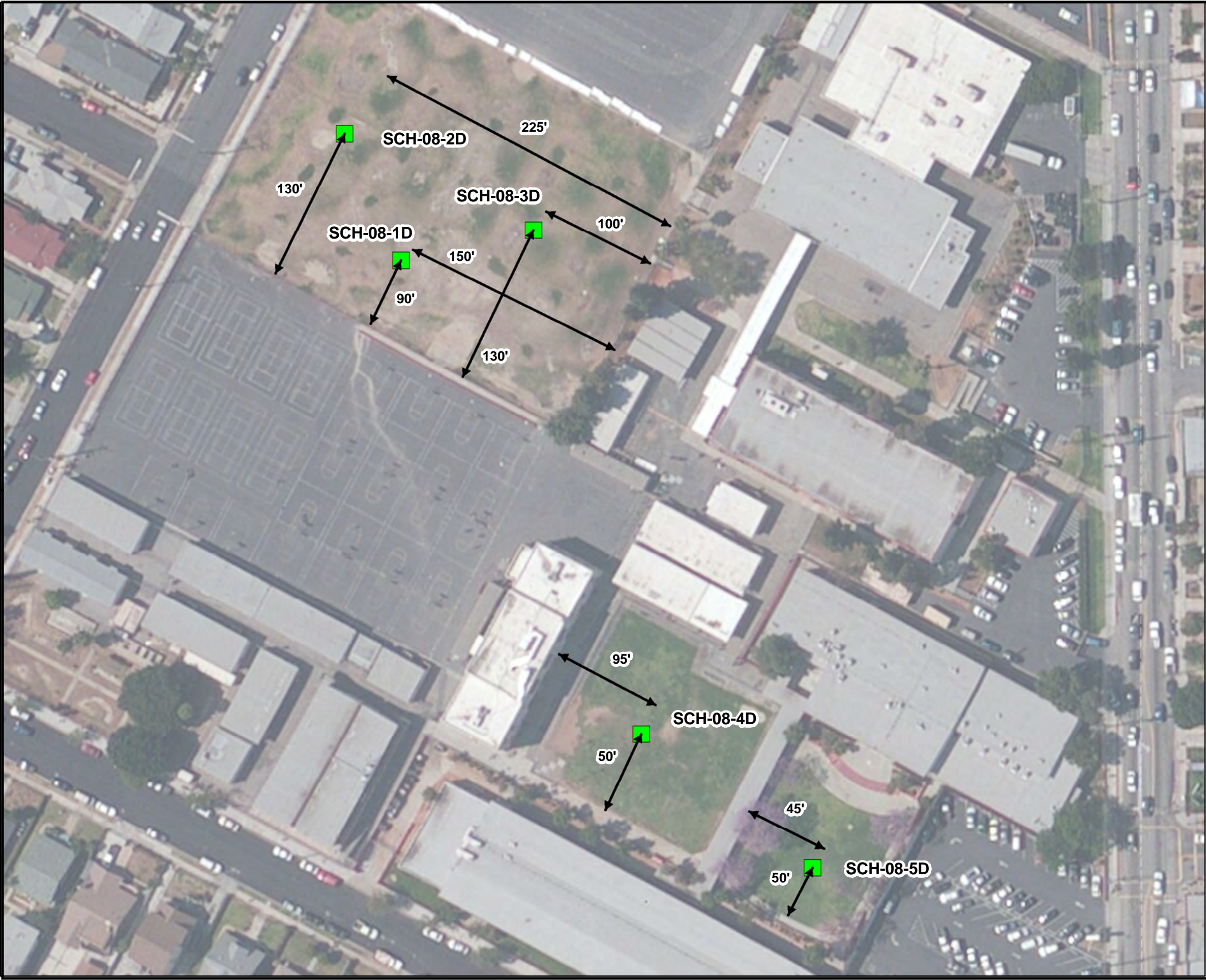
↔ 68' ↔ Distance in Feet

NOTE:  
FIGURE NOT TO SCALE

FIGURE 3  
**LORENA STREET SCHOOL**  
EXIDE TECHNOLOGIES  
2700 SOUTH INDIANA STREET  
VERNON, CALIFORNIA







**EXPLANATION**

■ Sample Location

↔ 68' ↔ Distance in Feet

NOTE:  
FIGURE NOT TO SCALE

FIGURE 4  
**ROBERT LOUIS STEVENSON  
MIDDLE SCHOOL**  
EXIDE TECHNOLOGIES  
2700 SOUTH INDIANA STREET  
VERNON, CALIFORNIA







**EXPLANATION**

■ Sample Location

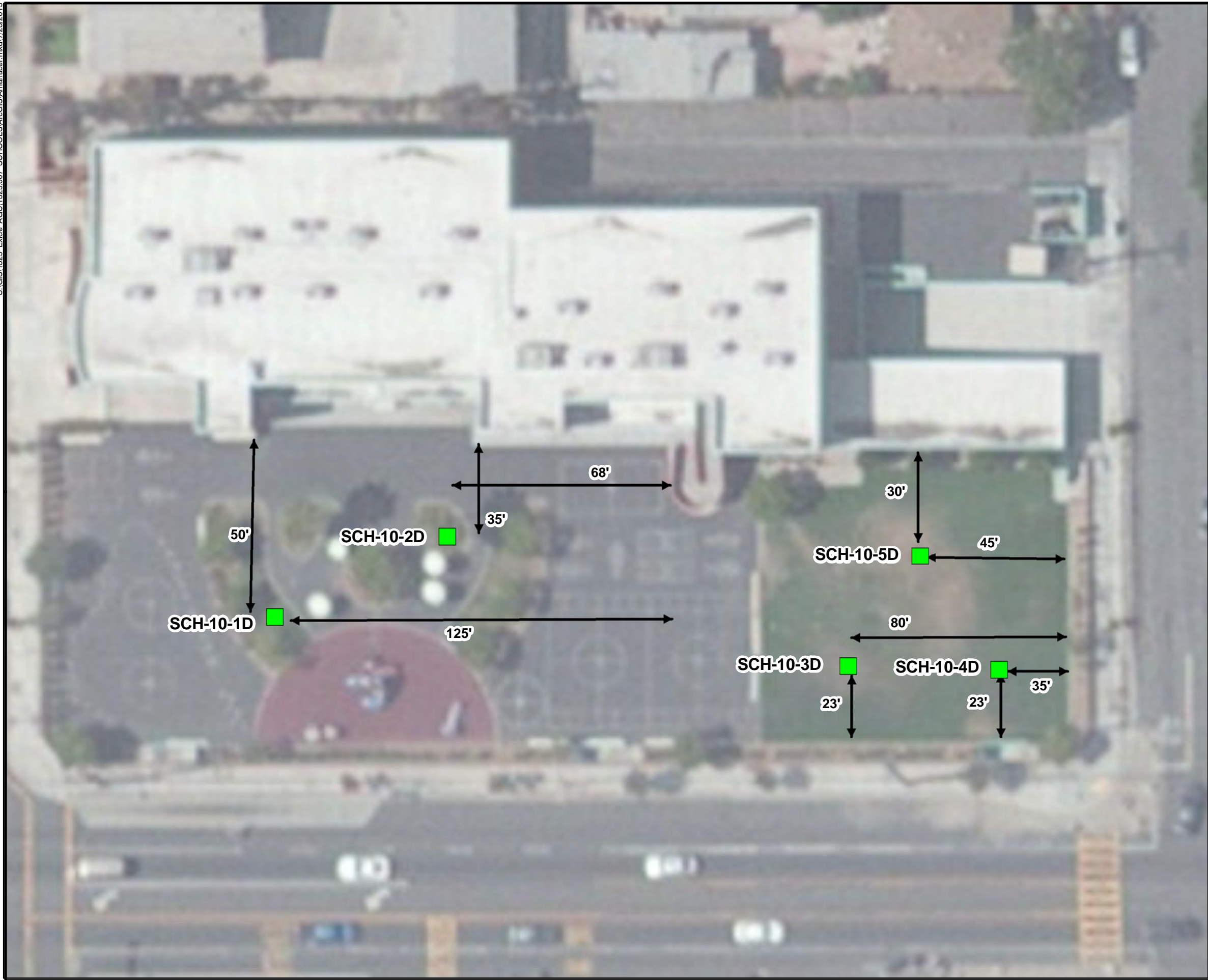
← 68' → Distance in Feet

NOTE:  
FIGURE NOT TO SCALE


FIGURE 5  
**ROWAN AVENUE SCHOOL**  
EXIDE TECHNOLOGIES  
2700 SOUTH INDIANA STREET  
VERNON, CALIFORNIA








**EXPLANATION**

 Sample Location

 Distance in Feet

NOTE:  
FIGURE NOT TO SCALE

FIGURE 6  
**AMANACER PRIMARY SCHOOL**  
EXIDE TECHNOLOGIES  
2700 SOUTH INDIANA STREET  
VERNON, CALIFORNIA







**EXPLANATION**

■ Sample Location

↔ 68' ↔ Distance in Feet

NOTE:  
FIGURE NOT TO SCALE

FIGURE 7  
**EASTMAN AVENUE  
ELEMENTARY SCHOOL**  
EXIDE TECHNOLOGIES  
2700 SOUTH INDIANA STREET  
VERNON, CALIFORNIA







**EXPLANATION**

■ Sample Location

↔68'↔ Distance in Feet

NOTE:  
FIGURE NOT TO SCALE

FIGURE 8

**MAYWOOD ELEMENTARY**

EXIDE TECHNOLOGIES  
2700 SOUTH INDIANA STREET  
VERNON, CALIFORNIA







**EXPLANATION**

■ Sample Location

← 68' → Distance in Feet

NOTE:  
FIGURE NOT TO SCALE

FIGURE 9

**FISHBURN AVENUE MIDDLE SCHOOL  
AND CLEMENTE CHARTER SCHOOL**

EXIDE TECHNOLOGIES  
2700 SOUTH INDIANA STREET  
VERNON, CALIFORNIA







**EXPLANATION**

 Sample Location

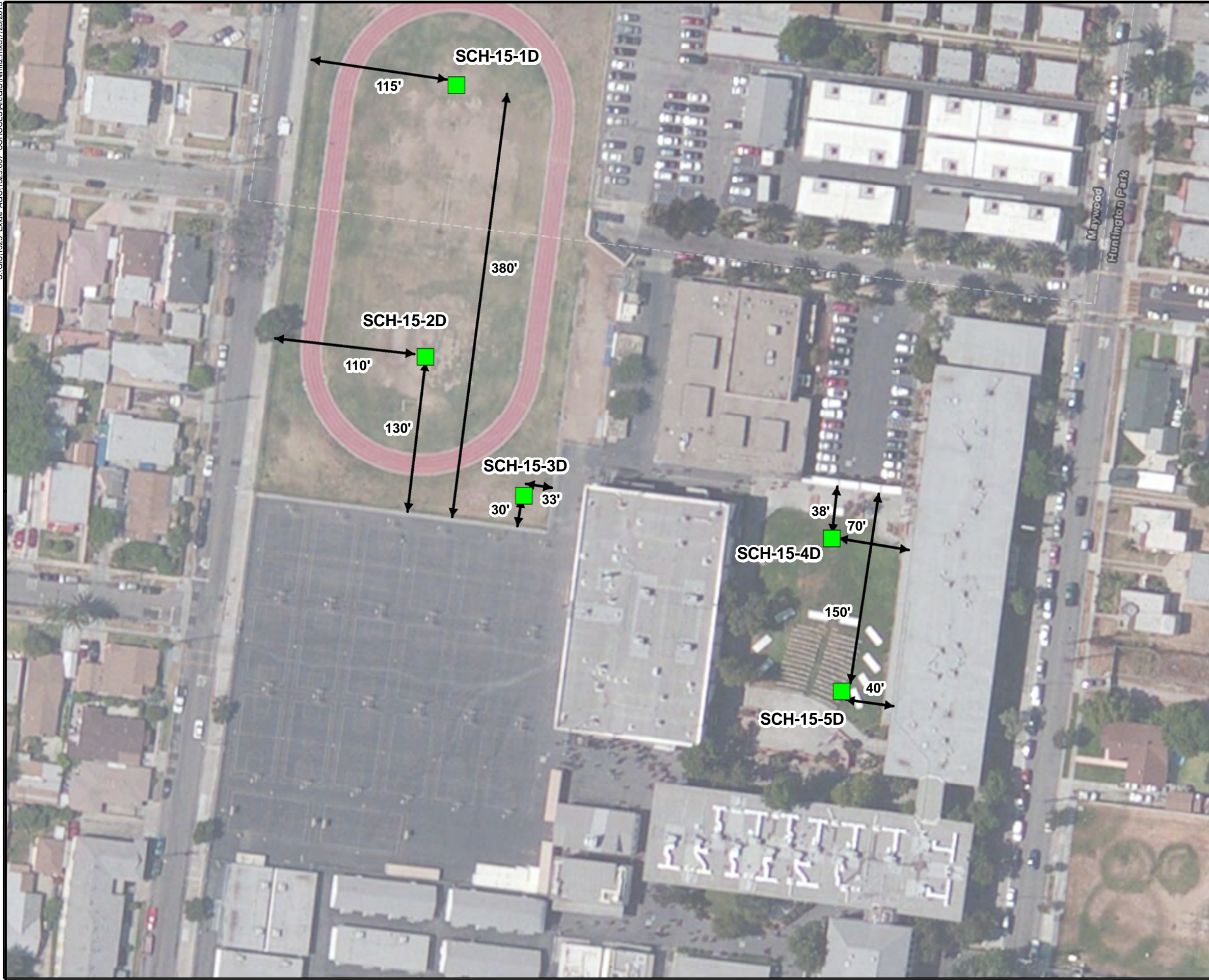
 68' Distance in Feet

NOTE:  
FIGURE NOT TO SCALE

FIGURE 10  
**HUNTINGTON PARK  
ELEMENTARY SCHOOL**  
EXIDE TECHNOLOGIES  
2700 SOUTH INDIANA STREET  
VERNON, CALIFORNIA







**EXPLANATION**

■ Sample Location

←68'→ Distance in Feet

NOTE:  
FIGURE NOT TO SCALE

FIGURE 11  
**CHESTER W. NIMITZ  
MIDDLE SCHOOL**  
EXIDE TECHNOLOGIES  
2700 SOUTH INDIANA STREET  
VERNON, CALIFORNIA







**EXPLANATION**

■ Sample Location

↔ 68' ↔ Distance in Feet

NOTE:  
FIGURE NOT TO SCALE

FIGURE 12  
**LOMA VISTA  
ELEMENTARY SCHOOL**  
EXIDE TECHNOLOGIES  
2700 SOUTH INDIANA STREET  
VERNON, CALIFORNIA





**WORK ORDER NUMBER: 15-07-0228***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Advanced GeoServices Corporation**Client Project Name:** Exide Vernon Offsite / 2013-3007-09**Attention:** Adam Doubleday  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293*Amanda Porter*

---

**Approved for release on 07/20/2015 by:**  
Amanda Porter  
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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 Work Order Number: 15-07-0228

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 07/06/15. They were assigned to Work Order 15-07-0228.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/06/15  
Work Order: 15-07-0228  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-06-01	15-07-0228-1-A	07/06/15 08:40	Solid	ICP 7300	07/08/15	07/10/15 00:42	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		29.2	0.478		0.957		
SCH-06-03	15-07-0228-2-A	07/06/15 08:43	Solid	ICP 7300	07/08/15	07/10/15 00:45	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		17.0	0.481		0.962		
SCH-06-06	15-07-0228-3-A	07/06/15 08:46	Solid	ICP 7300	07/08/15	07/10/15 00:45	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		17.6	0.521		1.04		
SCH-06-12	15-07-0228-4-A	07/06/15 08:49	Solid	ICP 7300	07/08/15	07/10/15 00:46	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		43.6	0.483		0.966		
SCH-06-18	15-07-0228-5-A	07/06/15 08:52	Solid	ICP 7300	07/08/15	07/10/15 00:47	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		13.6	0.493		0.985		
SCH-07-01	15-07-0228-6-A	07/06/15 09:50	Solid	ICP 7300	07/08/15	07/10/15 00:48	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		81.7	0.500		1.00		
SCH-07-03	15-07-0228-7-A	07/06/15 09:53	Solid	ICP 7300	07/08/15	07/10/15 00:48	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		87.3	0.518		1.04		
SCH-07-06	15-07-0228-8-A	07/06/15 09:56	Solid	ICP 7300	07/08/15	07/10/15 00:49	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		81.5	0.498		0.995		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/06/15  
Work Order: 15-07-0228  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-07-12	15-07-0228-9-A	07/06/15 09:58	Solid	ICP 7300	07/08/15	07/10/15 00:50	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		66.4	0.505		1.01		
SCH-07-18	15-07-0228-10-A	07/06/15 10:05	Solid	ICP 7300	07/08/15	07/10/15 00:50	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		17.1	0.510		1.02		
SCH-08-01	15-07-0228-11-A	07/06/15 11:00	Solid	ICP 7300	07/08/15	07/10/15 00:51	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		52.7	0.483		0.966		
SCH-08-03	15-07-0228-12-A	07/06/15 11:04	Solid	ICP 7300	07/08/15	07/10/15 00:54	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		37.9	0.515		1.03		
SCH-08-06	15-07-0228-13-A	07/06/15 11:08	Solid	ICP 7300	07/08/15	07/10/15 00:55	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		47.6	0.508		1.02		
SCH-08-12	15-07-0228-14-A	07/06/15 11:12	Solid	ICP 7300	07/08/15	07/10/15 00:55	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		75.6	0.521		1.04		
SCH-08-18	15-07-0228-15-A	07/06/15 11:16	Solid	ICP 7300	07/08/15	07/10/15 00:56	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		25.8	0.524		1.05		
SCH-09-01	15-07-0228-16-A	07/06/15 13:10	Solid	ICP 7300	07/08/15	07/10/15 00:57	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		68.6	0.510		1.02		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/06/15  
Work Order: 15-07-0228  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-09-03	15-07-0228-17-A	07/06/15 13:14	Solid	ICP 7300	07/08/15	07/10/15 00:57	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		70.1	0.500		1.00		
SCH-09-06	15-07-0228-18-A	07/06/15 13:18	Solid	ICP 7300	07/08/15	07/10/15 00:58	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		112	0.500		1.00		
SCH-09-12	15-07-0228-19-A	07/06/15 13:22	Solid	ICP 7300	07/08/15	07/10/15 00:59	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		52.6	0.510		1.02		
SCH-09-18	15-07-0228-20-A	07/06/15 13:26	Solid	ICP 7300	07/08/15	07/10/15 00:59	150708L03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		29.9	0.521		1.04		
SCH-10-01	15-07-0228-21-A	07/06/15 14:25	Solid	ICP 7300	07/08/15	07/10/15 01:00	150708L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		11.0	0.485		0.971		
SCH-10-03	15-07-0228-22-A	07/06/15 14:28	Solid	ICP 7300	07/08/15	07/10/15 18:14	150708L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		13.8	0.493		0.985		
SCH-10-06	15-07-0228-23-A	07/06/15 14:32	Solid	ICP 7300	07/08/15	07/10/15 18:16	150708L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		13.1	0.478		0.957		
SCH-10-12	15-07-0228-24-A	07/06/15 14:35	Solid	ICP 7300	07/08/15	07/10/15 18:18	150708L04
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		16.2	0.498		0.995		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/06/15  
Work Order: 15-07-0228  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>SCH-10-18</b>	<b>15-07-0228-25-A</b>	<b>07/06/15 14:40</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>07/08/15</b>	<b>07/09/15 17:11</b>	<b>150708L04</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Lead	10.2	0.495	0.990	

<b>Method Blank</b>	<b>097-01-002-21388</b>	<b>N/A</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>07/08/15</b>	<b>07/10/15 13:10</b>	<b>150708L03</b>
---------------------	-------------------------	------------	--------------	-----------------	-----------------	-----------------------	------------------

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Lead	ND	0.505	1.01	

<b>Method Blank</b>	<b>097-01-002-21380</b>	<b>N/A</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>07/08/15</b>	<b>07/09/15 17:04</b>	<b>150708L04</b>
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Lead	ND	0.500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/06/15  
Work Order: 15-07-0228  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SCH-06-01	Sample	Solid	ICP 7300	07/08/15	07/10/15 00:42	150708S03
SCH-06-01	Matrix Spike	Solid	ICP 7300	07/08/15	07/10/15 00:41	150708S03
SCH-06-01	Matrix Spike Duplicate	Solid	ICP 7300	07/08/15	07/10/15 00:41	150708S03

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	29.24	25.00	48.12	75	46.04	67	75-125	4	0-20	3

  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/06/15  
Work Order: 15-07-0228  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
<b>SCH-10-18</b>	<b>Sample</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>07/08/15</b>	<b>07/09/15 17:11</b>	<b>150708S04</b>
<b>SCH-10-18</b>	<b>Matrix Spike</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>07/08/15</b>	<b>07/09/15 17:08</b>	<b>150708S04</b>
<b>SCH-10-18</b>	<b>Matrix Spike Duplicate</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>07/08/15</b>	<b>07/09/15 17:09</b>	<b>150708S04</b>

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Lead	10.23	25.00	35.37	101	37.18	108	75-125	5	0-20	

  
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RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - LCS

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/06/15  
Work Order: 15-07-0228  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>097-01-002-21388</b>	<b>LCS</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>07/08/15</b>	<b>07/10/15 13:13</b>	<b>150708L03</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead	25.00	24.85	99	80-120	

  
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## Quality Control - LCS

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/06/15  
Work Order: 15-07-0228  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>097-01-002-21380</b>	<b>LCS</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>07/08/15</b>	<b>07/09/15 17:06</b>	<b>150708L04</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead	25.00	25.94	104	80-120	

  
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## Sample Analysis Summary Report

Work Order: 15-07-0228

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	771	ICP 7300	1

  
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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

## Glossary of Terms and Qualifiers

Work Order: 15-07-0228

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

1055 Andrew Dr. Suite A  
West Chester, PA 19380  
tel 610.840.9100

ADVANCED GEOSERVICES CORP.  
CHAIN OF CUSTODY

Project Name: Exide Vernon Offsite  
AGC Contact: Adam Doubleday

Lab Name/Location: Calscience, Garden Grove, CA  
Turnaround Time (circle one) Standard 5-Day 72-Hour 24-Hour

Project # 2013-3007-09  
Shipment #  
Shipment Tracking # courier pick-up Drop off  
Deliverables (circle one) Results only Results/QC summary CLP-Like

15-07-0228

Lab Use Only	Sample ID	Date	Time	Sample Type (C or G)	Matrix	Field Filled	# of Containers	ANALYSIS			Preservatives	REMARKS
								LEAD	#60 SEIVE			
1	SCN-06-01	07/06/15	08:40	C	S		1	X				
2	SCN-06-03		08:43	C	S		1	X				
3	SCN-06-06		08:46	C	S		1	X				
4	SCN-06-12		08:49	C	S		1	X				
5	SCN-06-18		08:52	C	S		1	X				
6	SCN-07-01		09:50	C	S		1	X				
7	SCN-07-03		09:53	C	S		1	X				
8	SCN-07-06		09:56	C	S		1	X				
9	SCN-07-12		09:58	C	S		1	X				
10	SCN-07-18		10:03	C	S		1	X				
11	SCN-08-01		11:00	C	S		1	X				
12	SCN-08-03		11:04	C	S		1	X				
13	SCN-08-06		11:08	C	S		1	X				
14	SCN-08-12		11:12	C	S		1	X				
15	SCN-08-18		11:16	C	S		1	X				
16	SCN-09-01		13:10	C	S		1	X				
17	SCN-09-03		13:14	C	S		1	X				
18	SCN-09-06		13:18	C	S		1	X				
19	SCN-09-12		13:22	C	S		1	X				
20	SCN-09-18		13:26	C	S		1	X				

Relinquished By: Madhavi  
Relinquished By: \_\_\_\_\_  
Relinquished By: \_\_\_\_\_

Received By: Greg  
Received By: \_\_\_\_\_  
Received By: \_\_\_\_\_

Date/Time: 15:32  
Date/Time: \_\_\_\_\_  
Date/Time: \_\_\_\_\_

07/06/2015

## Results/QC summary



BY: Paul R. L.

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# SAMPLE RECEIPT CHECKLIST

COOLER 0 OF 0

CLIENT: Exide

DATE: 07/6/2015

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC5 (CF:-0.2°C); Temperature (w/o CF): 24.9 °C (w/ CF): 24.7 °C; ☐ Blank ☒ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 836

**CUSTODY SEAL:**

Cooler ☐ Present and Intact ☐ Present but Not Intact ☐ Not Present ☒ N/A

Checked by: 836

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A

Checked by: 1017

**SAMPLE CONDITION:**

Chain-of-Custody (COC) document(s) received with samples ..... ☒ Yes ☐ No ☐ N/A

COC document(s) received complete ..... ☒ Yes ☐ No ☐ N/A

☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers

☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time

Sampler's name indicated on COC ..... ☐ Yes ☐ No ☒ N/A

Sample container label(s) consistent with COC ..... ☒ Yes ☐ No ☐ N/A

Sample container(s) intact and in good condition ..... ☒ Yes ☐ No ☐ N/A

Proper containers for analyses requested ..... ☒ Yes ☐ No ☐ N/A

Sufficient volume/mass for analyses requested ..... ☒ Yes ☐ No ☐ N/A

Samples received within holding time ..... ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ..... ☐ Yes ☐ No ☒ N/A

Proper preservation chemical(s) noted on COC and/or sample container ..... ☐ Yes ☐ No ☒ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals

Container(s) for certain analysis free of headspace ..... ☐ Yes ☐ No ☒ N/A

☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)

☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation ..... ☐ Yes ☐ No ☒ N/A

**CONTAINER TYPE:**

(Trip Blank Lot Number: \_\_\_\_\_)

**Aqueous:** ☐ VOA ☐ VOA<sub>h</sub> ☐ VOA<sub>na2</sub> ☐ 100PJ ☐ 100PJ<sub>na2</sub> ☐ 125AGB ☐ 125AGB<sub>h</sub> ☐ 125AGB<sub>p</sub> ☐ 125PB

☐ 125PB<sub>z</sub> ☐ 250AGB ☐ 250CGB ☐ 250CGB<sub>s</sub> ☐ 250PB ☐ 250PB<sub>n</sub> ☐ 500AGB ☐ 500AGJ ☐ 500AGJ<sub>s</sub>
☐ 500PB ☐ 1AGB ☐ 1AGB<sub>na2</sub> ☐ 1AGB<sub>s</sub> ☐ 1PB ☐ 1PB<sub>na</sub> ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

**Solid:** ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (\_\_\_\_\_) ☐ EnCores® (\_\_\_\_\_) ☐ TerraCores® (\_\_\_\_\_) ☒ 2

**Air:** ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ \_\_\_\_\_ **Other Matrix** (\_\_\_\_\_) : ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO<sub>3</sub>, **na** = NaOH, **na<sub>2</sub>** = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, **p** = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1017

**s** = H<sub>2</sub>SO<sub>4</sub>, **u** = ultra-pure, **z** = Zn(CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 836



**WORK ORDER NUMBER: 15-07-0294***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Advanced GeoServices Corporation**Client Project Name:** Exide Vernon Offsite / 2013-3007-09**Attention:** Adam Doubleday  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293*Amanda Porter*

---

**Approved for release on 07/21/2015 by:**  
Amanda Porter  
Project Manager

ResultLink ▶

Email your PM ▶



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 Work Order Number: 15-07-0294

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**Work Order Narrative**

Work Order: 15-07-0294

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 07/07/15. They were assigned to Work Order 15-07-0294.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Sieved samples were processed using #60 sieve prior to analysis.



Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/07/15  
Work Order: 15-07-0294  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-11-01	15-07-0294-1-A	07/07/15 09:00	Solid	ICP 7300	07/08/15	07/09/15 23:29	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		155	0.500		1.00		
SCH-11-03	15-07-0294-2-A	07/07/15 09:03	Solid	ICP 7300	07/08/15	07/09/15 23:30	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		207	0.508		1.02		
SCH-11-06	15-07-0294-3-A	07/07/15 09:06	Solid	ICP 7300	07/08/15	07/09/15 23:32	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		44.6	0.524		1.05		
SCH-11-12	15-07-0294-4-A	07/07/15 09:09	Solid	ICP 7300	07/08/15	07/09/15 23:33	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		43.6	0.515		1.03		
SCH-11-18	15-07-0294-5-A	07/07/15 09:12	Solid	ICP 7300	07/08/15	07/09/15 23:35	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		15.6	0.513		1.03		
SCH-12-01	15-07-0294-6-A	07/07/15 10:20	Solid	ICP 7300	07/08/15	07/09/15 23:36	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		12.4	0.508		1.02		
SCH-12-03	15-07-0294-7-A	07/07/15 10:25	Solid	ICP 7300	07/08/15	07/09/15 23:41	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		19.0	0.493		0.985		
SCH-12-06	15-07-0294-8-A	07/07/15 10:30	Solid	ICP 7300	07/08/15	07/09/15 23:43	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		28.0	0.526		1.05		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/07/15  
Work Order: 15-07-0294  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-12-12	15-07-0294-9-A	07/07/15 10:35	Solid	ICP 7300	07/08/15	07/09/15 23:45	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		27.1	0.500		1.00		
SCH-12-18	15-07-0294-10-A	07/07/15 10:40	Solid	ICP 7300	07/08/15	07/09/15 23:46	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		12.7	0.481		0.962		
SCH-13-01	15-07-0294-11-A	07/07/15 10:55	Solid	ICP 7300	07/08/15	07/09/15 23:48	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		88.1	0.490		0.980		
SCH-13-03	15-07-0294-12-A	07/07/15 11:00	Solid	ICP 7300	07/08/15	07/09/15 23:49	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		74.8	0.526		1.05		
SCH-13-06	15-07-0294-13-A	07/07/15 11:05	Solid	ICP 7300	07/08/15	07/09/15 23:51	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		70.4	0.505		1.01		
SCH-13-12	15-07-0294-14-A	07/07/15 11:10	Solid	ICP 7300	07/08/15	07/09/15 23:53	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		45.3	0.513		1.03		
SCH-13-18	15-07-0294-15-A	07/07/15 11:15	Solid	ICP 7300	07/08/15	07/09/15 23:54	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		22.1	0.500		1.00		
SCH-14-01	15-07-0294-16-A	07/07/15 12:10	Solid	ICP 7300	07/08/15	07/09/15 23:56	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		31.3	0.488		0.976		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/07/15  
Work Order: 15-07-0294  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-14-03	15-07-0294-17-A	07/07/15 12:14	Solid	ICP 7300	07/08/15	07/10/15 00:01	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		19.4	0.493		0.985		
SCH-14-06	15-07-0294-18-A	07/07/15 12:18	Solid	ICP 7300	07/08/15	07/10/15 00:03	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		17.7	0.513		1.03		
SCH-14-12	15-07-0294-19-A	07/07/15 12:22	Solid	ICP 7300	07/08/15	07/10/15 00:04	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		16.5	0.505		1.01		
SCH-14-18	15-07-0294-20-A	07/07/15 12:26	Solid	ICP 7300	07/08/15	07/10/15 00:06	150708L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		19.4	0.518		1.04		
SCH-15-01	15-07-0294-21-A	07/07/15 13:45	Solid	ICP 7300	07/08/15	07/09/15 22:21	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		43.1	0.518		1.04		
SCH-15-03	15-07-0294-22-A	07/07/15 13:50	Solid	ICP 7300	07/08/15	07/10/15 00:26	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		52.2	0.495		0.990		
SCH-15-06	15-07-0294-23-A	07/07/15 13:55	Solid	ICP 7300	07/08/15	07/10/15 00:26	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		33.4	0.526		1.05		
SCH-15-12	15-07-0294-24-A	07/07/15 14:00	Solid	ICP 7300	07/08/15	07/10/15 00:27	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		23.5	0.524		1.05		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/07/15  
Work Order: 15-07-0294  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-15-18	15-07-0294-25-A	07/07/15 14:05	Solid	ICP 7300	07/08/15	07/10/15 00:28	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		16.6	0.524		1.05		
SCH-16-01	15-07-0294-26-A	07/07/15 14:45	Solid	ICP 7300	07/08/15	07/10/15 00:28	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		39.5	0.485		0.971		
SCH-16-03	15-07-0294-27-A	07/07/15 14:50	Solid	ICP 7300	07/08/15	07/10/15 00:29	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		42.1	0.495		0.990		
SCH-16-06	15-07-0294-28-A	07/07/15 14:55	Solid	ICP 7300	07/08/15	07/10/15 00:30	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		70.7	0.505		1.01		
SCH-16-12	15-07-0294-29-A	07/07/15 14:58	Solid	ICP 7300	07/08/15	07/10/15 00:30	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		48.0	0.485		0.971		
SCH-16-18	15-07-0294-30-A	07/07/15 15:03	Solid	ICP 7300	07/08/15	07/10/15 00:31	150708L02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		18.4	0.510		1.02		
SCH-11-01 (sieve)	15-07-0294-33-A	07/07/15 09:00	Solid	ICP 7300	07/08/15	07/10/15 00:32	150708L02
Comment(s): - The sample was sieved prior to preparation / analysis per client instructions. See case narrative for specific procedure.							
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		101	0.515		1.03		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/07/15  
Work Order: 15-07-0294  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-11-18 (sieve)	15-07-0294-34-A	07/07/15 09:12	Solid	ICP 7300	07/08/15	07/10/15 00:35	150708L02

Comment(s): - The sample was sieved prior to preparation / analysis per client instructions. See case narrative for specific procedure.

Parameter	Result	RL	DF	Qualifiers
Lead	15.4	0.478	0.957	

SCH-13-01 (sieve)	15-07-0294-35-A	07/07/15 10:55	Solid	ICP 7300	07/08/15	07/10/15 00:35	150708L02
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Comment(s): - The sample was sieved prior to preparation / analysis per client instructions. See case narrative for specific procedure.

Parameter	Result	RL	DF	Qualifiers
Lead	76.0	0.505	1.01	

SCH-14-01 (sieve)	15-07-0294-36-A	07/07/15 12:10	Solid	ICP 7300	07/08/15	07/10/15 00:36	150708L02
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Comment(s): - The sample was sieved prior to preparation / analysis per client instructions. See case narrative for specific procedure.

Parameter	Result	RL	DF	Qualifiers
Lead	24.2	0.500	1.00	

SCH-15-01 (sieve)	15-07-0294-37-A	07/07/15 13:45	Solid	ICP 7300	07/08/15	07/10/15 00:37	150708L02
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Comment(s): - The sample was sieved prior to preparation / analysis per client instructions. See case narrative for specific procedure.

Parameter	Result	RL	DF	Qualifiers
Lead	41.3	0.524	1.05	

SCH-16-01 (sieve)	15-07-0294-38-A	07/07/15 14:45	Solid	ICP 7300	07/08/15	07/10/15 00:37	150708L02
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Comment(s): - The sample was sieved prior to preparation / analysis per client instructions. See case narrative for specific procedure.

Parameter	Result	RL	DF	Qualifiers
Lead	40.7	0.493	0.985	

Method Blank	097-01-002-21384	N/A	Solid	ICP 7300	07/08/15	07/09/15 23:22	150708L01
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Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.503	1.01	

Method Blank	097-01-002-21383	N/A	Solid	ICP 7300	07/08/15	07/09/15 22:01	150708L02
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Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.498	0.995	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/07/15  
Work Order: 15-07-0294  
Preparation: EPA 3010A Total  
Method: EPA 6010B  
Units: mg/L

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-070615	15-07-0294-31-A	07/06/15 15:45	Aqueous	ICP 7300	07/08/15	07/10/15 23:39	150708LA7
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		ND		0.0100	1.00		
EB-070715	15-07-0294-32-A	07/07/15 16:30	Aqueous	ICP 7300	07/08/15	07/10/15 23:42	150708LA7
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		ND		0.0100	1.00		
Method Blank	097-01-003-15195	N/A	Aqueous	ICP 7300	07/08/15	07/09/15 12:41	150708LA7
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>		<u>Qualifiers</u>
Lead		ND		0.0100	1.00		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

## Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/07/15  
Work Order: 15-07-0294  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SCH-11-01	Sample	Solid	ICP 7300	07/08/15	07/09/15 23:29	150708S01
SCH-11-01	Matrix Spike	Solid	ICP 7300	07/08/15	07/09/15 23:25	150708S01
SCH-11-01	Matrix Spike Duplicate	Solid	ICP 7300	07/08/15	07/09/15 23:27	150708S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	155.4	25.00	309.0	4X	197.4	4X	75-125	4X	0-20	Q

  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/07/15  
Work Order: 15-07-0294  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SCH-15-01	Sample	Solid	ICP 7300	07/08/15	07/09/15 22:21	150708S02
SCH-15-01	Matrix Spike	Solid	ICP 7300	07/08/15	07/09/15 22:17	150708S02
SCH-15-01	Matrix Spike Duplicate	Solid	ICP 7300	07/08/15	07/09/15 22:19	150708S02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	43.11	25.00	66.72	94	72.91	119	75-125	9	0-20	

  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/07/15  
Work Order: 15-07-0294  
Preparation: EPA 3010A Total  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
15-07-0357-1	Sample	Aqueous	ICP 7300	07/08/15	07/10/15 14:31	150708SA7
15-07-0357-1	Matrix Spike	Aqueous	ICP 7300	07/08/15	07/09/15 12:50	150708SA7
15-07-0357-1	Matrix Spike Duplicate	Aqueous	ICP 7300	07/08/15	07/09/15 12:52	150708SA7

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	ND	0.5000	0.6132	123	0.5993	120	84-120	2	0-7	3

  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/07/15  
Work Order: 15-07-0294  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>097-01-002-21384</b>	<b>LCS</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>07/08/15</b>	<b>07/09/15 23:24</b>	<b>150708L01</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead		25.00	26.14	105	80-120	

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Calscience

## Quality Control - LCS

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/07/15  
Work Order: 15-07-0294  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>097-01-002-21383</b>	<b>LCS</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>07/08/15</b>	<b>07/09/15 22:03</b>	<b>150708L02</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead		25.00	26.24	105	80-120	

  
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Calscience

## Quality Control - LCS

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 07/07/15  
Work Order: 15-07-0294  
Preparation: EPA 3010A Total  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-003-15195	LCS	Aqueous	ICP 7300	07/08/15	07/09/15 12:44	150708LA7

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Lead	0.5000	0.5527	111	80-120	

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Calscience

## Sample Analysis Summary Report

Work Order: 15-07-0294

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3010A Total	771	ICP 7300	1
EPA 6010B	EPA 3050B	771	ICP 7300	1

  
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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

## Glossary of Terms and Qualifiers

Work Order: 15-07-0294

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



1055 Andrew Dr. Suite A  
West Chester, PA 19380  
tel 610.840.9100

ADVANCED GEOSERVICES CORP.  
CHAIN OF CUSTODY

1055  
1052

Project Name: Exide Vernon Offsite  
AGC Contact: Adam Doubleday

Lab Name/Location: Calscience, Garden Grove, CA

Turnaround Time (circle one) **Standard** 5-Day 72-Hour 24-Hour

Project # 2013-3007-09

Shipment # 306 p I

Shipment Tracking # courier pick-up

Deliverables (circle one) Results only **Results/QC summary** CLP-Like

15-07-0294

Lab Use Only	Sample ID	Date	Time	Sample Type (C or G)	Matrix	Field Filled	# of Containers	ANALYSIS			Preservatives	REMARKS
								LEAD	#6010	SEIVE		
1	SCH-11-01	7-7-15	900	C	S	N	1	X	X	X		33
2	SCH-11-03		903									
3	SCH-11-06		906									
4	SCH-11-12		909									
5	SCH-11-18		912						X			Refused - 4 point sample
6	SCH-12-01		1020									
7	SCH-12-03		1025									
8	SCH-12-06		1030									
9	SCH-12-12		1035									
10	SCH-12-18		1040									
11	SCH-13-01		1055						X			35
12	SCH-13-03		1100									
13	SCH-13-06		1105									
14	SCH-13-12		1110									
15	SCH-13-18		1115									
16	SCH-14-01		1210						X			36
17	SCH-14-03		1214									
18	SCH-14-06		1218									
19	SCH-14-12		1222									
20	SCH-14-18		1226									

Relinquished By: Andrew Doubleday Received By: Prey Date/Time: 7/7/2015 16:30  
Relinquished By: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Relinquished By: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

2 of 2

**Project Name: Exide Vernon Offsite**

**AGC Contact: Adam Doubleday**

**Lab Name/Location: Calscience, Garden Grove, CA**

Turnaround Time (circle one) **Standard** 5-Day 72-Hour 24-Hour

**Project # 2013-3007-09**

**Shipment #**

Shipment Tracking # courier pick-up

Deliverables (circle one)	Results only	Results/QC summary	CLP-Like
1. <u>  </u> <b>Deliverables</b> (circle one)			
2. <u>  </u> <b>Results only</b>			
3. <u>  </u> <b>Results/QC summary</b>			
4. <u>  </u> <b>CLP-Like</b>			

[illegible]

Relinquished By: Michael J. [Signature] Date/Time: 7/7/2015 16:30  
Received By: Rami [Signature] 69

Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_

Relinquished By: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

# SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Exide

DATE: 07 / 07 / 2015

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC5 (CF:-0.2°C); Temperature (w/o CF): 16.7 °C (w/ CF): 16.5 °C; ☐ Blank ☒ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 836

**CUSTODY SEAL:**

Cooler ☐ Present and Intact

☐ Present but Not Intact

☒ Not Present

☐ N/A

Checked by: 836

Sample(s) ☐ Present and Intact

☐ Present but Not Intact

☒ Not Present

☐ N/A

Checked by: 603

**SAMPLE CONDITION:**

Chain-of-Custody (COC) document(s) received with samples ..... ☒ Yes ☐ No ☐ N/A

COC document(s) received complete ..... ☒ Yes ☐ No ☐ N/A

☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers

☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time

Sampler's name indicated on COC ..... ☐ Yes ☐ No ☒ N/A

Sample container label(s) consistent with COC ..... ☒ Yes ☐ No ☐ N/A

Sample container(s) intact and in good condition ..... ☒ Yes ☐ No ☐ N/A

Proper containers for analyses requested ..... ☒ Yes ☐ No ☐ N/A

Sufficient volume/mass for analyses requested ..... ☒ Yes ☐ No ☐ N/A

Samples received within holding time ..... ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ..... ☐ Yes ☐ No ☒ N/A

Proper preservation chemical(s) noted on COC and/or sample container ..... ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals

Container(s) for certain analysis free of headspace ..... ☐ Yes ☐ No ☒ N/A

☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)

☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation ..... ☐ Yes ☐ No ☒ N/A

**CONTAINER TYPE:**

(Trip Blank Lot Number: \_\_\_\_\_)

**Aqueous:** ☐ VOA ☐ VOA<sub>h</sub> ☐ VOA<sub>na2</sub> ☐ 100PJ ☐ 100PJ<sub>na2</sub> ☐ 125AGB ☐ 125AGB<sub>h</sub> ☐ 125AGB<sub>p</sub> ☐ 125PB

☐ 125PB<sub>z</sub> ☐ 250AGB ☐ 250CGB ☐ 250CGB<sub>s</sub> ☐ 250PB ☒ 250PB<sub>n</sub> ☐ 500AGB ☐ 500AGJ ☐ 500AGJ<sub>s</sub>
☐ 500PB ☐ 1AGB ☐ 1AGB<sub>na2</sub> ☐ 1AGB<sub>s</sub> ☐ 1PB ☐ 1PB<sub>na</sub> ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

**Solid:** ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (\_\_\_\_\_) ☐ EnCores® (\_\_\_\_\_) ☐ TerraCores® (\_\_\_\_\_) ☒ Z

**Air:** ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ \_\_\_\_\_ **Other Matrix** (\_\_\_\_\_) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO<sub>3</sub>, **na** = NaOH, **na<sub>2</sub>** = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, **p** = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 603

**s** = H<sub>2</sub>SO<sub>4</sub>, **u** = ultra-pure, **z** = Zn(CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 836



**ATTACHMENT 2**

**DTSC Review of  
July 2015 Soil Sampling Field Activities Report  
Los Angeles Unified School District Schools**

**July 31, 2015**





**Matthew Rodriguez**  
Secretary for  
Environmental Protection



## Department of Toxic Substances Control

Barbara A. Lee, Director  
8800 Cal Center Drive  
Sacramento, California 95826-3200



**Edmund G. Brown Jr.**  
Governor

July 31, 2015

Mr. Fredrick Ganster  
Exide Technologies  
3000 Montrose Avenue  
Reading, Pennsylvania 19605

DTSC REVIEW OF REVISED JULY 2015 SOIL SAMPLING FIELD ACTIVITIES REPORT, LOS ANGELES UNIFIED SCHOOL DISTRICT SCHOOLS, EXIDE TECHNOLOGIES, VERNON, CA (CORRECTIVE ACTION CONSENT ORDER, DOCKET NUMBER P3-01 /02-010)

Dear Mr. Ganster:

The Department of Toxic Substances Control (DTSC) has reviewed the report titled "July 2015 Soil Sampling Field Activities Report, Los Angeles Unified School District Schools" (Report), which was prepared by Avocet Environmental Inc. (Avocet) for Advanced GeoServices Inc. (AGC), a consultant for Exide Technologies, Inc. (Exide). The Report is dated July 30, 2015 and was received by DTSC via email on July 31, 2015. The Report includes a cover letter prepared by AGC, also dated July 31, 2015, and addressed to Mr. Pat Shanen of the Los Angeles County Unified School District (LAUSD). The Report documents the sampling protocol and the results of laboratory analysis of soil samples collected from 11 LAUSD schools on July 6 and 7, 2015. DTSC staff was present during the stated July 6 and July 7, 2015 sampling work, and based on our review of the Report we have concluded that the sampling protocol as stated in the Report is accurate.

The results of laboratory analysis are provided in table format, attached to the AGC cover letter. DTSC cannot validate the tabulated information in the AGC cover letter since the actual laboratory data was not provided in the Report. Exide must provide DTSC with validated laboratory reports that verify the tabulated soil concentrations submitted without delay.

Notwithstanding the above, DTSC has reviewed the information provided in AGC's cover letter and has concluded that additional analysis for lead in soils is necessary to gain a better understanding for lead concentrations exceeding 80 parts-per-million for the composite samples. Based on the tables this additional analysis would include the samples from: SCH-07 (0-1", 1-3", and 3-6"); SCH-09 (3-6"); SCH-11 (0-1" and 1-3"); and SCH-13 (0-1"). The additional laboratory analysis should be performed on an expedited basis.

Mr. Frederick Ganster

July 31, 2015

Page 2

Should you have any questions regarding this letter, please contact me at 916-255-3630 or [Peter.Ruttan@dtsc.ca.gov](mailto:Peter.Ruttan@dtsc.ca.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read 'Peter Ruttan', with a stylized flourish at the end.

Peter Ruttan  
Project Manager  
Office of Permitting

cc: (via e-mail)

Mr. Chuck Giesige, Exide  
Mr. Tom Strang, Exide  
Mr. John Hogarth, Exide  
Ms. Christine Graessle, Exide  
Mr. Paul Stratman, AGC  
Ms. Barbara Forslund, AGC  
Mr. Pat Shanen, LAUSD

Mr. Keith Kihara, DTSC  
Mr. Rizgar Ghazi, DTSC  
Ms. Suhasini Patel, DTSC  
Mr. Richard Sherwood, DTSC  
Mr. Todd Wallbom, DTSC  
Ms. Dina Kourda  
Ms. Yolanda Garza



## **ATTACHMENT 3**

### **Select Discrete Sample Results**

**Received August 2015**



EXIDE VERNON  
2014 - 2015 Residential Soil Sampling  
Lead Results

Sample Location(s): SCH-07 (composite)

Sample Date: 7/6/2015

Sample Depth	SCH-07
0-1"	81.7
1-3"	87.3
3-6"	81.5
6-12"	66.4
12-18"	17.1

Samples are composites

All lead results reported in mg/kg

Sample Location: SCH-07 (discrete)

Sample Date: 7/6/2015

Sample Depth	1D	2D	3D	4D	5D
0-1"	35.7	213	170	70.3	66.4
1-3"	65.7	219	158	65.2	58.7
3-6"	78.9	217	171	68.7	23.4
6-12"	NA	NA	NA	NA	NA
12-18"	NA	NA	NA	NA	NA

All lead results reported in mg/kg

NA - Not analyzed. Only discrete samples for the depth intervals with composite results greater than 80 mg/kg were analyzed.



EXIDE VERNON  
2014 - 2015 Residential Soil Sampling  
Lead Results

Sample Location(s): SCH-09 (composite)

Sample Date: 7/6/2015

Sample Depth	SCH-09
0-1"	68.6
1-3"	70.1
3-6"	112
6-12"	52.6
12-18"	29.9

Samples are composites

All lead results reported in mg/kg

Sample Location: SCH-09 (discrete)

Sample Date: 7/6/2015

Sample Depth	1D	2D	3D	4D	5D
0-1"	NA	NA	NA	NA	NA
1-3"	NA	NA	NA	NA	NA
3-6"	105	19.5	139	163	17.5
6-12"	NA	NA	NA	NA	NA
12-18"	NA	NA	NA	NA	NA

All lead results reported in mg/kg

NA - Not analyzed. Only discrete samples for the depth intervals with composite results greater than 80 mg/kg were analyzed.



EXIDE VERNON  
2014 - 2015 Residential Soil Sampling  
Lead Results

Sample Location(s): SCH-11 (composite)

Sample Date: 7/7/2015

Sample Depth	SCH-11
0-1"	155
1-3"	207
3-6"	44.6
6-12"	43.6
12-18"	15.6

Samples are composites

All lead results reported in mg/kg

Sample Location: SCH-11 (discrete)

Sample Date: 7/7/2015

Sample Depth	1D	2D	3D	4D	5D
0-1"	481	688	80.8	31.9	29.4
1-3"	220	450	85.2	28.8	29.2
3-6"	NA	NA	NA	NA	NA
6-12"	NA	NA	NA	NA	NA
12-18"	NA	NA	NA	NA	NA

All lead results reported in mg/kg

NA - Not analyzed. Only discrete samples for the depth intervals with composite results greater than 80 mg/kg were analyzed.



EXIDE VERNON  
2014 - 2015 Residential Soil Sampling  
Lead Results

Sample Location(s): SCH-13 (composite)

Sample Date: 7/7/2015

Sample Depth	SCH-13
0-1"	88.1
1-3"	74.8
3-6"	70.4
6-12"	45.3
12-18"	22.1

Samples are composites

All lead results reported in mg/kg

Sample Location: SCH-13 (discrete)

Sample Date: 7/7/2015

Sample Depth	1D	2D	3D	4D	5D
0-1"	183	144	25.8	29.8	37.9
1-3"	NA	NA	NA	NA	NA
3-6"	NA	NA	NA	NA	NA
6-12"	NA	NA	NA	NA	NA
12-18"	NA	NA	NA	NA	NA

All lead results reported in mg/kg

NA - Not analyzed. Only discrete samples for the depth intervals with composite results greater than 80 mg/kg were analyzed.



# DATA VALIDATION SUMMARY

## Level I

Site Name: Exide Vernon  
 Project Number: 2013-3007  
 Sampling Date(s): 7/6 - 7/7/15

Laboratory: Calscience  
 Case/Order/SDG # 15-08-0208

Compound List: Lead

Method: 6010

The following table indicates the data validation criteria examined, any problems identified, and the QA action applied.

Data Validation Criteria:                      Accept    FYI    Qualify    Comments

Holding Times	X			
Blank Analysis	X			
Field Duplicate Analysis				NA
Surrogate Recoveries				NA
Matrix Spike Analysis (MS/MSD)		X		Sample conc >4X spike conc
Laboratory Control Sample Analysis (LCS)	X			
Laboratory Duplicate Analysis				NA
Overall Assessment of Data	X			
Other:				

General Comments: cooler temp: 2.1

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Accept - No qualification required.

FYI - For your information only, no qualification necessary.

Qualify - Qualify as rejected, estimated or biased.

NR - Not Reviewed

NA - Not Applicable

QA Scientist   
 Date 8/10/2015



Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-07-1D-01	15-08-0208-1-A	07/06/15 09:15	Solid	ICP 8300	08/04/15	08/05/15 12:27	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		35.7	0.495		0.990		
SCH-07-1D-03	15-08-0208-2-A	07/06/15 09:16	Solid	ICP 8300	08/04/15	08/05/15 12:28	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		65.7	0.488		0.976		
SCH-07-1D-06	15-08-0208-3-A	07/06/15 09:17	Solid	ICP 8300	08/04/15	08/05/15 12:31	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		78.9	0.518		1.04		
SCH-07-2D-01	15-08-0208-4-A	07/06/15 09:20	Solid	ICP 8300	08/04/15	08/05/15 12:31	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		213	0.503		1.01		
SCH-07-2D-03	15-08-0208-5-A	07/06/15 09:21	Solid	ICP 8300	08/04/15	08/05/15 12:32	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		219	0.515		1.03		
SCH-07-2D-06	15-08-0208-6-A	07/06/15 09:22	Solid	ICP 8300	08/04/15	08/05/15 12:33	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		217	0.508		1.02		
SCH-07-3D-01	15-08-0208-7-A	07/06/15 09:25	Solid	ICP 8300	08/04/15	08/05/15 12:34	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		170	0.493		0.985		
SCH-07-3D-03	15-08-0208-8-A	07/06/15 09:26	Solid	ICP 8300	08/04/15	08/05/15 12:35	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		158	0.495		0.990		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

*fw*  
8/10/2015





Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

Page 2 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-07-3D-06	15-08-0208-9-A	07/06/15 09:27	Solid	ICP 8300	08/04/15	08/05/15 12:36	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		171	0.483		0.966		
SCH-07-4D-01	15-08-0208-10-A	07/06/15 09:30	Solid	ICP 8300	08/04/15	08/05/15 12:37	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		70.3	0.495		0.990		
SCH-07-4D-03	15-08-0208-11-A	07/06/15 09:31	Solid	ICP 8300	08/04/15	08/05/15 12:37	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		65.2	0.513		1.03		
SCH-07-4D-06	15-08-0208-12-A	07/06/15 09:32	Solid	ICP 8300	08/04/15	08/05/15 12:38	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		68.7	0.498		0.995		
SCH-07-5D-01	15-08-0208-13-A	07/06/15 09:35	Solid	ICP 8300	08/04/15	08/05/15 12:41	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		66.4	0.483		0.966		
SCH-07-5D-03	15-08-0208-14-A	07/06/15 09:36	Solid	ICP 8300	08/04/15	08/05/15 12:42	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		58.7	0.508		1.02		
SCH-07-5D-06	15-08-0208-15-A	07/06/15 09:37	Solid	ICP 8300	08/04/15	08/05/15 12:43	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		23.4	0.518		1.04		
SCH-09-1D-06	15-08-0208-16-A	07/06/15 12:27	Solid	ICP 8300	08/04/15	08/05/15 12:44	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		105	0.503		1.01		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

*fw*  
8/10/2015



Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-09-2D-06	15-08-0208-17-A	07/06/15 12:32	Solid	ICP 8300	08/04/15	08/05/15 12:45	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		19.5	0.483		0.966		
SCH-09-3D-06	15-08-0208-18-A	07/06/15 12:38	Solid	ICP 8300	08/04/15	08/05/15 12:46	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		139	0.510		1.02		
SCH-09-4D-06	15-08-0208-19-A	07/06/15 12:42	Solid	ICP 8300	08/04/15	08/05/15 12:46	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		163	0.495		0.990		
SCH-09-5D-06	15-08-0208-20-A	07/06/15 12:47	Solid	ICP 8300	08/04/15	08/05/15 12:47	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		17.5	0.490		0.980		
SCH-11-1D-01	15-08-0208-21-A	07/07/15 08:20	Solid	ICP 8300	08/04/15	08/05/15 12:48	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		481	0.495		0.990		
SCH-11-1D-03	15-08-0208-22-A	07/07/15 08:21	Solid	ICP 8300	08/04/15	08/05/15 12:49	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		220	0.505		1.01		
SCH-11-2D-01	15-08-0208-23-A	07/07/15 08:25	Solid	ICP 8300	08/04/15	08/05/15 12:52	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		688	0.481		0.962		
SCH-11-2D-03	15-08-0208-24-A	07/07/15 08:26	Solid	ICP 8300	08/04/15	08/05/15 12:53	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		450	0.513		1.03		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

*fw*  
8/10/2015



Calscience

## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-11-3D-01	15-08-0208-25-A	07/07/15 08:30	Solid	ICP 8300	08/04/15	08/05/15 12:53	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		80.8	0.513		1.03		
SCH-11-3D-03	15-08-0208-26-A	07/07/15 08:31	Solid	ICP 8300	08/04/15	08/05/15 12:54	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		85.2	0.508		1.02		
SCH-11-4D-01	15-08-0208-27-A	07/07/15 08:35	Solid	ICP 8300	08/04/15	08/05/15 12:55	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		31.9	0.476		0.952		
SCH-11-4D-03	15-08-0208-28-A	07/07/15 08:36	Solid	ICP 8300	08/04/15	08/05/15 12:56	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		28.8	0.510		1.02		
SCH-11-5D-01	15-08-0208-29-A	07/07/15 08:40	Solid	ICP 8300	08/04/15	08/05/15 12:57	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		29.4	0.510		1.02		
SCH-11-5D-03	15-08-0208-30-A	07/07/15 08:41	Solid	ICP 8300	08/04/15	08/05/15 12:58	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		29.2	0.498		0.995		
SCH-13-1D-01	15-08-0208-31-A	07/07/15 10:25	Solid	ICP 8300	08/04/15	08/05/15 12:58	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		183	0.490		0.980		
SCH-13-2D-01	15-08-0208-32-A	07/07/15 10:30	Solid	ICP 8300	08/04/15	08/05/15 12:59	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		144	0.510		1.02		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

*fw*  
8/10/2015



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## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-13-3D-01	15-08-0208-33-A	07/07/15 10:35	Solid	ICP 8300	08/04/15	08/05/15 13:02	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Lead		25.8	0.485	0.971			
SCH-13-4D-01	15-08-0208-34-A	07/07/15 10:40	Solid	ICP 8300	08/04/15	08/05/15 13:03	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Lead		29.8	0.515	1.03			
SCH-13-5D-01	15-08-0208-35-A	07/07/15 10:45	Solid	ICP 8300	08/04/15	08/05/15 13:04	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Lead		37.9	0.518	1.04			
Method Blank	097-01-002-21548	N/A	Solid	ICP 8300	08/04/15	08/05/15 12:19	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Lead		ND	0.500	1.00			
Method Blank	097-01-002-21549	N/A	Solid	ICP 8300	08/04/15	08/05/15 12:20	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Lead		ND	0.500	1.00			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

*fw*  
8/10/2015



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## Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SCH-11-1D-01	Sample	Solid	ICP 8300	08/04/15	08/05/15 12:48	150804S08
SCH-11-1D-01	Matrix Spike	Solid	ICP 8300	08/04/15	08/05/15 12:25	150804S08
SCH-11-1D-01	Matrix Spike Duplicate	Solid	ICP 8300	08/04/15	08/05/15 12:26	150804S08

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	481.2	25.00	413.8	4X	295.5	4X	75-125	4X	0-20	Q

FYI

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RPD: Relative Percent Difference. CL: Control Limits

8/10/2015

**WORK ORDER NUMBER: 15-08-0208***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Advanced GeoServices Corporation**Client Project Name:** Exide Vernon Offsite / 2013-3007-09**Attention:** Adam Doubleday  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293*Amanda Porter*

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**Approved for release on 08/05/2015 by:**  
Amanda Porter  
Project Manager

ResultLink ▶

Email your PM ▶



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 Work Order Number: 15-08-0208

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**Work Order Narrative**

Work Order: 15-08-0208

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 08/04/15. They were assigned to Work Order 15-08-0208.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.





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## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-07-1D-01	15-08-0208-1-A	07/06/15 09:15	Solid	ICP 8300	08/04/15	08/05/15 12:27	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		35.7	0.495		0.990		
SCH-07-1D-03	15-08-0208-2-A	07/06/15 09:16	Solid	ICP 8300	08/04/15	08/05/15 12:28	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		65.7	0.488		0.976		
SCH-07-1D-06	15-08-0208-3-A	07/06/15 09:17	Solid	ICP 8300	08/04/15	08/05/15 12:31	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		78.9	0.518		1.04		
SCH-07-2D-01	15-08-0208-4-A	07/06/15 09:20	Solid	ICP 8300	08/04/15	08/05/15 12:31	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		213	0.503		1.01		
SCH-07-2D-03	15-08-0208-5-A	07/06/15 09:21	Solid	ICP 8300	08/04/15	08/05/15 12:32	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		219	0.515		1.03		
SCH-07-2D-06	15-08-0208-6-A	07/06/15 09:22	Solid	ICP 8300	08/04/15	08/05/15 12:33	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		217	0.508		1.02		
SCH-07-3D-01	15-08-0208-7-A	07/06/15 09:25	Solid	ICP 8300	08/04/15	08/05/15 12:34	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		170	0.493		0.985		
SCH-07-3D-03	15-08-0208-8-A	07/06/15 09:26	Solid	ICP 8300	08/04/15	08/05/15 12:35	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		158	0.495		0.990		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-07-3D-06	15-08-0208-9-A	07/06/15 09:27	Solid	ICP 8300	08/04/15	08/05/15 12:36	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		171	0.483		0.966		
SCH-07-4D-01	15-08-0208-10-A	07/06/15 09:30	Solid	ICP 8300	08/04/15	08/05/15 12:37	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		70.3	0.495		0.990		
SCH-07-4D-03	15-08-0208-11-A	07/06/15 09:31	Solid	ICP 8300	08/04/15	08/05/15 12:37	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		65.2	0.513		1.03		
SCH-07-4D-06	15-08-0208-12-A	07/06/15 09:32	Solid	ICP 8300	08/04/15	08/05/15 12:38	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		68.7	0.498		0.995		
SCH-07-5D-01	15-08-0208-13-A	07/06/15 09:35	Solid	ICP 8300	08/04/15	08/05/15 12:41	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		66.4	0.483		0.966		
SCH-07-5D-03	15-08-0208-14-A	07/06/15 09:36	Solid	ICP 8300	08/04/15	08/05/15 12:42	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		58.7	0.508		1.02		
SCH-07-5D-06	15-08-0208-15-A	07/06/15 09:37	Solid	ICP 8300	08/04/15	08/05/15 12:43	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		23.4	0.518		1.04		
SCH-09-1D-06	15-08-0208-16-A	07/06/15 12:27	Solid	ICP 8300	08/04/15	08/05/15 12:44	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		105	0.503		1.01		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-09-2D-06	15-08-0208-17-A	07/06/15 12:32	Solid	ICP 8300	08/04/15	08/05/15 12:45	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		19.5	0.483		0.966		
SCH-09-3D-06	15-08-0208-18-A	07/06/15 12:38	Solid	ICP 8300	08/04/15	08/05/15 12:46	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		139	0.510		1.02		
SCH-09-4D-06	15-08-0208-19-A	07/06/15 12:42	Solid	ICP 8300	08/04/15	08/05/15 12:46	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		163	0.495		0.990		
SCH-09-5D-06	15-08-0208-20-A	07/06/15 12:47	Solid	ICP 8300	08/04/15	08/05/15 12:47	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		17.5	0.490		0.980		
SCH-11-1D-01	15-08-0208-21-A	07/07/15 08:20	Solid	ICP 8300	08/04/15	08/05/15 12:48	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		481	0.495		0.990		
SCH-11-1D-03	15-08-0208-22-A	07/07/15 08:21	Solid	ICP 8300	08/04/15	08/05/15 12:49	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		220	0.505		1.01		
SCH-11-2D-01	15-08-0208-23-A	07/07/15 08:25	Solid	ICP 8300	08/04/15	08/05/15 12:52	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		688	0.481		0.962		
SCH-11-2D-03	15-08-0208-24-A	07/07/15 08:26	Solid	ICP 8300	08/04/15	08/05/15 12:53	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		450	0.513		1.03		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-11-3D-01	15-08-0208-25-A	07/07/15 08:30	Solid	ICP 8300	08/04/15	08/05/15 12:53	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		80.8	0.513		1.03		
SCH-11-3D-03	15-08-0208-26-A	07/07/15 08:31	Solid	ICP 8300	08/04/15	08/05/15 12:54	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		85.2	0.508		1.02		
SCH-11-4D-01	15-08-0208-27-A	07/07/15 08:35	Solid	ICP 8300	08/04/15	08/05/15 12:55	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		31.9	0.476		0.952		
SCH-11-4D-03	15-08-0208-28-A	07/07/15 08:36	Solid	ICP 8300	08/04/15	08/05/15 12:56	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		28.8	0.510		1.02		
SCH-11-5D-01	15-08-0208-29-A	07/07/15 08:40	Solid	ICP 8300	08/04/15	08/05/15 12:57	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		29.4	0.510		1.02		
SCH-11-5D-03	15-08-0208-30-A	07/07/15 08:41	Solid	ICP 8300	08/04/15	08/05/15 12:58	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		29.2	0.498		0.995		
SCH-13-1D-01	15-08-0208-31-A	07/07/15 10:25	Solid	ICP 8300	08/04/15	08/05/15 12:58	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		183	0.490		0.980		
SCH-13-2D-01	15-08-0208-32-A	07/07/15 10:30	Solid	ICP 8300	08/04/15	08/05/15 12:59	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
Lead		144	0.510		1.02		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Exide Vernon Offsite / 2013-3007-09

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SCH-13-3D-01	15-08-0208-33-A	07/07/15 10:35	Solid	ICP 8300	08/04/15	08/05/15 13:02	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		25.8	0.485		0.971		
SCH-13-4D-01	15-08-0208-34-A	07/07/15 10:40	Solid	ICP 8300	08/04/15	08/05/15 13:03	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		29.8	0.515		1.03		
SCH-13-5D-01	15-08-0208-35-A	07/07/15 10:45	Solid	ICP 8300	08/04/15	08/05/15 13:04	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		37.9	0.518		1.04		
Method Blank	097-01-002-21548	N/A	Solid	ICP 8300	08/04/15	08/05/15 12:19	150804L07
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		ND	0.500		1.00		
Method Blank	097-01-002-21549	N/A	Solid	ICP 8300	08/04/15	08/05/15 12:20	150804L08
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
Lead		ND	0.500		1.00		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SCH-07-1D-01	Sample	Solid	ICP 8300	08/04/15	08/05/15 12:27	150804S07
SCH-07-1D-01	Matrix Spike	Solid	ICP 8300	08/04/15	08/05/15 12:24	150804S07
SCH-07-1D-01	Matrix Spike Duplicate	Solid	ICP 8300	08/04/15	08/05/15 12:24	150804S07

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	35.70	25.00	59.58	96	58.69	92	75-125	2	0-20	

  
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RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - Spike/Spike Duplicate

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SCH-11-1D-01	Sample	Solid	ICP 8300	08/04/15	08/05/15 12:48	150804S08
SCH-11-1D-01	Matrix Spike	Solid	ICP 8300	08/04/15	08/05/15 12:25	150804S08
SCH-11-1D-01	Matrix Spike Duplicate	Solid	ICP 8300	08/04/15	08/05/15 12:26	150804S08

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Lead	481.2	25.00	413.8	4X	295.5	4X	75-125	4X	0-20	Q

  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>097-01-002-21548</b>	<b>LCS</b>	<b>Solid</b>	<b>ICP 8300</b>	<b>08/04/15</b>	<b>08/05/15 12:21</b>	<b>150804L07</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead	25.00	26.19	105	80-120	

  
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Calscience

## Quality Control - LCS

Advanced GeoServices Corporation  
1055 Andrew Drive, Suite A  
West Chester, PA 19380-4293

Date Received: 08/04/15  
Work Order: 15-08-0208  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Exide Vernon Offsite / 2013-3007-09

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>097-01-002-21549</b>	<b>LCS</b>	<b>Solid</b>	<b>ICP 8300</b>	<b>08/04/15</b>	<b>08/05/15 12:22</b>	<b>150804L08</b>

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Lead	25.00	25.92	104	80-120	

  
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Calscience

## Sample Analysis Summary Report

Work Order: 15-08-0208

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3050B	935	ICP 8300	1

  
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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

## Glossary of Terms and Qualifiers

Work Order: 15-08-0208

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

Project Name: Exide Vernon Offsite  
AGC Contact: Adam Doubleday

Lab Name/Location: Calscience, Garden Grove, CA

Turnaround Time (circle one) Standard 5-Day 72-Hour 24-Hour

Project # 2013-3007-09

Shipment #

Shipment Tracking #

Deliverables (circle one)

courier pick-up

Results only

**15-08-0208**

Results/QC summary ELP-Like

Lab Use Only	Sample ID	Date	Time	Sample Type (C or G)	Matrix	Field Filtered	# of Containers	ANALYSIS					REMARKS
								Lead					
													Invoice to Exide
1	SCH-07-10-01	7/ 6 /15	915	G	S	N	1	X					
2	SCH-07-10-03	7/ 6 /15	916	G	S	N	1	X					
3	SCH-07-10-06	7/ 6 /15	917	G	S	N	1	X					
4	SCH-07-20-01	7/ 6 /15	920	G	S	N	1	X					
5	SCH-07-20-03	7/ 6 /15	921	G	S	N	1	X					
6	SCH-07-20-06	7/ 6 /15	922	G	S	N	1	X					
7	SCH-07-30-01	7/ 6 /15	925	G	S	N	1	X					
8	SCH-07-30-03	7/ 6 /15	926	G	S	N	1	X					
9	SCH-07-30-06	7/ 6 /15	927	G	S	N	1	X					
10	SCH-07-40-01	7/ 6 /16	930	G	S	N	1	X					
11	SCH-07-40-03	7/ 6 /17	931	G	S	N	1	X					
12	SCH-07-40-06	7/ 6 /18	932	G	S	N	1	X					
13	SCH-07-50-01	7/ 6 /19	935	G	S	N	1	X					
14	SCH-07-50-03	7/ 6 /20	936	G	S	N	1	X					
15	SCH-07-50-06	7/ 6 /21	937	G	S	N	1	X					

Relinquished By: John Saff Received By: Rudy W Date/Time: 8/4/15 1616  
Relinquished By: Rudy W Date/Time: 8/4/15 1800



Project Name: Exide Vernon Offsite  
AGC Contact: Adam Doubleday

Lab Name/Location: Calscience, Garden Grove, CA

Turnaround Time (circle one) Standard 5-Day 72-Hour

Project # 2013-3007-09

Shipment #

Shipment Tracking # courier pick-up

Deliverables (circle one) Results only

Results/QC summary OLP-Like

0208

Lab Use Only	Sample ID	Date	Time	Sample Type (C or G)	Matrix	Field Filtered	# of Containers	ANALYSIS				Preservatives	REMARKS
								Lead					
16	SCH-09-10-06	7/6/15	1227	G	S	N	1	X					Invoice to Exide
17	SCH-09-20-06	7/6/15	1232	G	S	N	1	X					
18	SCH-09-30-06	7/6/15	1237	G	S	N	1	X					
19	SCH-09-40-06	7/6/15	1242	G	S	N	1	X					
20	SCH-09-50-06	7/6/15	1247	G	S	N	1	X					
21	SCH-11-10-01	7/7/15	820	G	S	N	1	X					
22	SCH-11-10-03	7/7/15	821	G	S	N	1	X					
23	SCH-11-20-01	7/7/15	825	G	S	N	1	X					
24	SCH-11-20-03	7/7/15	826	G	S	N	1	X					
25	SCH-11-30-01	7/7/15	830	G	S	N	1	X					
26	SCH-11-30-03	7/7/15	831	G	S	N	1	X					
27	SCH-11-40-01	7/7/15	835	G	S	N	1	X					
28	SCH-11-40-03	7/7/15	836	G	S	N	1	X					
29	SCH-11-50-01	7/7/15	840	G	S	N	1	X					
30	SCH-11-50-03	7/7/15	841	G	S	N	1	X					

Relinquished By: Adam Sattler Received By: Rudy W. E.C. Date/Time: 8/4/15 1616  
Relinquished By: Rudy W. Received By: g Date/Time: 8/4/15 1800

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# SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: ADVANCED GEO SERVICES CORP.

DATE: 08/4/2015

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC5 (CF:-0.2°C); Temperature (w/o CF): 2.2 °C (w/ CF): 2.0 °C; ☐ Blank ☒ Sample  
☐ Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
☐ Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature: ☐ Air ☐ Filter  
 Checked by: 676

**CUSTODY SEAL:**  
 Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A  
 Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/A  
 Checked by: 676  
 Checked by: 1013

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers <input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample container label(s) consistent with COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:** (Trip Blank Lot Number: \_\_\_\_\_)  
**Aqueous:** ☐ VOA ☐ VOA<sub>h</sub> ☐ VOA<sub>na2</sub> ☐ 100PJ ☐ 100PJ<sub>na2</sub> ☐ 125AGB ☐ 125AGB<sub>h</sub> ☐ 125AGB<sub>p</sub> ☐ 125PB  
☐ 125PB<sub>znna</sub> ☐ 250AGB ☐ 250CGB ☐ 250CGB<sub>s</sub> ☐ 250PB ☐ 250PB<sub>n</sub> ☐ 500AGB ☐ 500AGJ ☐ 500AGJ<sub>s</sub>  
☐ 500PB ☐ 1AGB ☐ 1AGB<sub>na2</sub> ☐ 1AGB<sub>s</sub> ☐ 1PB ☐ 1PB<sub>na</sub> ☐ \_\_\_\_\_ ☐ \_\_\_\_\_ ☐ \_\_\_\_\_  
**Solid:** ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (\_\_\_\_\_) ☐ EnCores® (\_\_\_\_\_) ☐ TerraCores® (\_\_\_\_\_) ☒ Zipbag  
**Air:** ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ \_\_\_\_\_ **Other Matrix** (\_\_\_\_\_) ☐ \_\_\_\_\_ ☐ \_\_\_\_\_  
 Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1013  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, znna = Zn(CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 774

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