

**APPENDIX D**

**ANALYTICAL LABORATORY REPORTS w/CHAIN-OF-CUSTODY RECORDS**



Element Materials Technology Lafayette  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344  
TEL: (337) 235-0483 FAX: (337) 233-6540  
Website: [www.element.com](http://www.element.com)

January 16, 2015

Greg Miller  
ICON Environmental Services  
2049 Commercial Drive  
Port Allen, LA 70767  
TEL: (225) 344-8490  
FAX (225) 344-6654

RE: VPSB East White Lake Pit

Order No.: 15010294

Dear Greg Miller:

Element Materials Technology Lafayette, LLC received 8 sample(s) on 1/8/2015 for the analyses presented in the following report.

In accordance with your instructions Element Lafayette conducted the analysis shown on the following pages on samples submitted by your company. The results related only to the items tested. Unless otherwise noted, all analyses were conducted using EPA approved methodologies and all test results meet all requirements of TNI. All relevant sampling information is on the attached Chain-of-Custody form.

All soil data, except for 29-B, are on a wet-weight basis unless otherwise indicated in the units field as –dry.

LELAP Certification No.: 01997. TCEQ Certification No.: T104704261-14-6. A scope of accredited parameters is available upon request. A "#" by the test method or analyte indicates this parameter is outside the scope of accreditation.

Estimated uncertainty is available upon request. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in blue ink that reads 'Annie Reedy'.

Annie Reedy  
Manager, Analytical Services  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344



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## Case Narrative

WO#: 15010294  
Date: 1/16/2015

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**CLIENT:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

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Unless specified by the client, a duplicate or MS/MSD, wherever applicable, is randomly selected and analyzed from each analytical batch provided sample volume is sufficient. The sample chosen for duplicate or MS/MSD may or may not be a sample submitted in this workorder. A method blank and/or a lab control sample (LCS)/lab control sample duplicate (LCSD), wherever applicable, are processed as a quality control check for each analytical batch. When the matrix QC data is not available due to insufficient sample volume or when the results indicate possible matrix effect, the validity of the batch is determined by the method blank and LCS/LCSD.

The results of the laboratory internal quality control data are provided in the QC Summary Report section of the report for your review. Laboratory-related QC exceptions that may impact the validity of data are discussed in the case narrative. Sample-related QC exceptions are flagged either in the results page(s) or in the QC report page(s). End users should consider QC exceptions when evaluating sample data against data quality objectives.

Any other exceptions associated with this report will be footnoted in the results page(s) or the QC summary page(s).



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# Analytical Report

(consolidated)

WO#: 15010294

Date Reported: 1/16/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 3:35:00 PM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-001 **Matrix:** SOIL  
**Client Sample ID** WL-7 0-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	27.1	0.1		meq/100g	1	1/15/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	638	112		mg/Kg-dry	20	1/14/2015 9:35:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	4.73	0.10	*	mmhos/cm	1	1/13/2015 12:47:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	11.6	0.1		%	1	1/15/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	< 0.05	0.05		% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	6.38	1.68		S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	23.8	1.0		wt%	1	1/8/2015 4:45:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	13.9	0.100	*		1	1/14/2015
Soluble Calcium	6.38	1.00		meq/L	1	1/14/2015
Soluble Magnesium	6.03	1.00		meq/L	1	1/14/2015
Soluble Sodium	34.7	1.00		meq/L	1	1/14/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010294**

Date Reported: **1/16/2015**

**CLIENT:** ICON Environmental Services

**Collection Date:** 1/6/2015 3:35:00 PM

**Project:** VPSB East White Lake Pit

**Lab ID:** 15010294-001

**Matrix:** SOIL

**Client Sample ID** WL-7 0-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	< 20.0	20.0		mg/Kg	1	1/13/2015 3:37:00 AM
TPH (Oil Range)	< 50.0	50.0		mg/Kg	1	1/13/2015 3:37:00 AM
Surr: 4-Terphenyl-d14	86.6	33 - 152		%REC	1	1/13/2015 3:37:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/15/2015 3:22:04 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	2.96	0.99		mg/Kg-dry	1	1/13/2015 4:15:51 PM
Barium	124	0.99		mg/Kg-dry	1	1/13/2015 4:15:51 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:15:51 PM
Chromium	8.54	0.99		mg/Kg-dry	1	1/13/2015 4:15:51 PM
Lead	8.36	0.99		mg/Kg-dry	1	1/13/2015 4:15:51 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/13/2015 4:15:51 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:15:51 PM
Zinc	19.7	0.99		mg/Kg-dry	1	1/13/2015 4:15:51 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	166	47		mg/Kg-dry	1	1/13/2015 5:22:35 PM

**Qualifiers:**

- |  |   |
|--|---|
| * Value exceeds Maximum Contaminant Level.           | B Analyte detected in the associated Method Blank |
| C Value is below Minimum Compound Limit.             | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded | M Matrix Interference                             |
| N Tentatively identified compounds                   | ND Not Detected at the Reporting Limit            |
| O RSD is greater than RSDlimit                       | P Second column confirmation exceeds              |
| PL Permit Limit                                      | R RPD outside accepted recovery limits            |
| RL Reporting Detection Limit                         | S Spike Recovery outside accepted recovery limits |



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# Analytical Report

(consolidated)

WO#: 15010294

Date Reported: 1/16/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 3:55:00 PM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-002 **Matrix:** SOIL  
**Client Sample ID** WL-7 2-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	30.2	0.1		meq/100g	1	1/15/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	935	110		mg/Kg-dry	25	1/14/2015 9:35:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	7.24	0.10	*	mmhos/cm	1	1/13/2015 12:48:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	13.8	0.1		%	1	1/15/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	< 0.05	0.05		% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	6.57	1.68		S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	24.9	1.0		wt%	1	1/8/2015 4:45:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	17.6	0.100	*		1	1/14/2015
Soluble Calcium	10.0	1.00		meq/L	1	1/14/2015
Soluble Magnesium	7.15	1.00		meq/L	1	1/14/2015
Soluble Sodium	51.7	1.00		meq/L	1	1/14/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

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WO#: **15010294**

Date Reported: **1/16/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 3:55:00 PM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-002 **Matrix:** SOIL  
**Client Sample ID** WL-7 2-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	19.2	10.0		mg/Kg	1	1/13/2015 3:53:00 AM
TPH (Oil Range)	22.9	10.0		mg/Kg	1	1/13/2015 3:53:00 AM
Surr: 4-Terphenyl-d14	97.1	33 - 152		%REC	1	1/13/2015 3:53:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/15/2015 3:29:54 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	2.60	0.99		mg/Kg-dry	1	1/13/2015 4:27:14 PM
Barium	122	0.99		mg/Kg-dry	1	1/13/2015 4:27:14 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:27:14 PM
Chromium	7.74	0.99		mg/Kg-dry	1	1/13/2015 4:27:14 PM
Lead	8.11	0.99		mg/Kg-dry	1	1/13/2015 4:27:14 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/13/2015 4:27:14 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:27:14 PM
Zinc	20.9	0.99		mg/Kg-dry	1	1/13/2015 4:27:14 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	153	47		mg/Kg-dry	1	1/13/2015 5:32:40 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010294**

Date Reported: **1/16/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 4:15:00 PM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-003 **Matrix:** SOIL  
**Client Sample ID** WL-7 4-6

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	63.9	0.1		meq/100g	1	1/15/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	9,320	972		mg/Kg-dry	100	1/14/2015 9:35:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	26.0	0.10	*	mmhos/cm	1	1/13/2015 12:48:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	15.7	0.1	*	%	1	1/15/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	2.05	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
pH Measurement	6.05	1.68		S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
Percent Moisture	60.4	1.0		wt%	1	1/8/2015 4:45:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	42.9	0.100	*		1	1/14/2015
Soluble Calcium	38.9	1.00		meq/L	1	1/14/2015
Soluble Magnesium	27.4	1.00		meq/L	1	1/14/2015
Soluble Sodium	247	1.00		meq/L	1	1/14/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





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# Analytical Report

(consolidated)

WO#: **15010294**

Date Reported: **1/16/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 4:15:00 PM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-003 **Matrix:** SOIL  
**Client Sample ID** WL-7 4-6

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	4,380	1,000		mg/Kg	100	1/13/2015 5:28:00 PM
TPH (Oil Range)	1,680	100		mg/Kg	10	1/13/2015 4:09:00 AM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/13/2015 5:28:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/15/2015 3:32:18 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.47	0.99		mg/Kg-dry	1	1/13/2015 4:30:37 PM
Barium	268	0.99		mg/Kg-dry	1	1/13/2015 4:30:37 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:30:37 PM
Chromium	10.6	0.99		mg/Kg-dry	1	1/13/2015 4:30:37 PM
Lead	11.1	0.99		mg/Kg-dry	1	1/13/2015 4:30:37 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/13/2015 4:30:37 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:30:37 PM
Zinc	46.6	0.99		mg/Kg-dry	1	1/13/2015 4:30:37 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	327	46		mg/Kg-dry	1	1/13/2015 5:36:02 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010294

Date Reported: 1/16/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 4:30:00 PM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-004 **Matrix:** SOIL  
**Client Sample ID** WL-7 6-8

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	67.2	0.1		meq/100g	1	1/15/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	15,200	1,790		mg/Kg-dry	200	1/14/2015 9:35:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	48.4	0.10	*	mmhos/cm	1	1/13/2015 12:48:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	33.9	0.1	*	%	1	1/15/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	0.32	0.05		% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	6.34	1.68		S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	54.8	1.0		wt%	1	1/8/2015 4:45:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	93.1	0.100	*		1	1/14/2015
Soluble Calcium	37.6	1.00		meq/L	1	1/14/2015
Soluble Magnesium	22.5	1.00		meq/L	1	1/14/2015
Soluble Sodium	510	1.00		meq/L	1	1/14/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010294**

Date Reported: **1/16/2015**

**CLIENT:** ICON Environmental Services

**Collection Date:** 1/6/2015 4:30:00 PM

**Project:** VPSB East White Lake Pit

**Lab ID:** 15010294-004

**Matrix:** SOIL

**Client Sample ID** WL-7 6-8

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	1,190	100		mg/Kg	10	1/13/2015 4:26:00 AM
TPH (Oil Range)	611	100		mg/Kg	10	1/13/2015 4:26:00 AM
Surr: 4-Terphenyl-d14	97.2	33 - 152		%REC	10	1/13/2015 4:26:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/15/2015 3:35:03 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	1.85	0.99		mg/Kg-dry	1	1/13/2015 4:33:57 PM
Barium	201	0.99		mg/Kg-dry	1	1/13/2015 4:33:57 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:33:57 PM
Chromium	9.71	0.99		mg/Kg-dry	1	1/13/2015 4:33:57 PM
Lead	9.46	0.99		mg/Kg-dry	1	1/13/2015 4:33:57 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/13/2015 4:33:57 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:33:57 PM
Zinc	40.0	0.99		mg/Kg-dry	1	1/13/2015 4:33:57 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	279	47		mg/Kg-dry	1	1/13/2015 5:39:25 PM

**Qualifiers:**

- |  |   |
|--|---|
| * Value exceeds Maximum Contaminant Level.           | B Analyte detected in the associated Method Blank |
| C Value is below Minimum Compound Limit.             | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded | M Matrix Interference                             |
| N Tentatively identified compounds                   | ND Not Detected at the Reporting Limit            |
| O RSD is greater than RSDlimit                       | P Second column confirmation exceeds              |
| PL Permit Limit                                      | R RPD outside accepted recovery limits            |
| RL Reporting Detection Limit                         | S Spike Recovery outside accepted recovery limits |



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# Analytical Report

(consolidated)

WO#: 15010294

Date Reported: 1/16/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/7/2015 8:30:00 AM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-005 **Matrix:** SOIL  
**Client Sample ID** WL-8 0-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	30.3	0.1		meq/100g	1	1/15/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	624	68		mg/Kg-dry	10	1/14/2015 9:35:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	4.12	0.10	*	mmhos/cm	1	1/13/2015 12:49:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	5.3	0.1		%	1	1/15/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	< 0.05	0.05		% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	5.67	1.68	C	S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	28.8	1.0		wt%	1	1/8/2015 4:45:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	11.8	0.100			1	1/14/2015
Soluble Calcium	6.66	1.00		meq/L	1	1/14/2015
Soluble Magnesium	7.07	1.00		meq/L	1	1/14/2015
Soluble Sodium	31.0	1.00		meq/L	1	1/14/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010294**

Date Reported: **1/16/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/7/2015 8:30:00 AM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-005 **Matrix:** SOIL  
**Client Sample ID** WL-8 0-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	34.4	10.0		mg/Kg	1	1/13/2015 4:42:00 AM
TPH (Oil Range)	55.2	10.0		mg/Kg	1	1/13/2015 4:42:00 AM
Surr: 4-Terphenyl-d14	84.3	33 - 152		%REC	1	1/13/2015 4:42:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/15/2015 3:37:26 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.08	0.99		mg/Kg-dry	1	1/13/2015 4:44:44 PM
Barium	160	0.99		mg/Kg-dry	1	1/13/2015 4:44:44 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:44:44 PM
Chromium	8.63	0.99		mg/Kg-dry	1	1/13/2015 4:44:44 PM
Lead	9.34	0.99		mg/Kg-dry	1	1/13/2015 4:44:44 PM
Selenium	< 1.98	1.98		mg/Kg-dry	1	1/13/2015 4:44:44 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:44:44 PM
Zinc	20.5	0.99		mg/Kg-dry	1	1/13/2015 4:44:44 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	205	46		mg/Kg-dry	1	1/13/2015 5:42:49 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010294

Date Reported: 1/16/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/7/2015 8:35:00 AM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-006 **Matrix:** SOIL  
**Client Sample ID** WL-8 2-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	27.8	0.1		meq/100g	1	1/15/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	1,100	124		mg/Kg-dry	20	1/14/2015 9:35:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	6.96	0.10	*	mmhos/cm	1	1/13/2015 12:49:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	6.3	0.1		%	1	1/15/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	< 0.05	0.05		% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
pH Measurement	6.08	1.68		S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
Percent Moisture	25.5	1.0		wt%	1	1/8/2015 4:45:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	14.0	0.100	*		1	1/14/2015
Soluble Calcium	12.7	1.00		meq/L	1	1/14/2015
Soluble Magnesium	8.90	1.00		meq/L	1	1/14/2015
Soluble Sodium	46.2	1.00		meq/L	1	1/14/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010294**

Date Reported: **1/16/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/7/2015 8:35:00 AM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-006 **Matrix:** SOIL  
**Client Sample ID** WL-8 2-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	< 10.0	10.0		mg/Kg	1	1/13/2015 4:58:00 AM
TPH (Oil Range)	12.8	10.0		mg/Kg	1	1/13/2015 4:58:00 AM
Surr: 4-Terphenyl-d14	87.8	33 - 152		%REC	1	1/13/2015 4:58:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/15/2015 3:45:04 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.00	0.99		mg/Kg-dry	1	1/13/2015 4:48:15 PM
Barium	188	0.99		mg/Kg-dry	1	1/13/2015 4:48:15 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:48:15 PM
Chromium	8.43	0.99		mg/Kg-dry	1	1/13/2015 4:48:15 PM
Lead	9.03	0.99		mg/Kg-dry	1	1/13/2015 4:48:15 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/13/2015 4:48:15 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:48:15 PM
Zinc	25.4	0.99		mg/Kg-dry	1	1/13/2015 4:48:15 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	230	48		mg/Kg-dry	1	1/13/2015 5:46:13 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010294**

Date Reported: **1/16/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/7/2015 8:50:00 AM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-007 **Matrix:** SOIL  
**Client Sample ID** WL-8 4-6

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	54.8	0.1		meq/100g	1	1/15/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	4,920	729		mg/Kg-dry	100	1/14/2015 9:35:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	19.1	0.10	*	mmhos/cm	1	1/13/2015 12:50:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	12.8	0.1		%	1	1/15/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	0.92	0.05		% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	6.23	1.68		S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	53.7	1.0		wt%	1	1/8/2015 4:45:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	28.4	0.100	*		1	1/14/2015
Soluble Calcium	34.1	1.00		meq/L	1	1/14/2015
Soluble Magnesium	22.2	1.00		meq/L	1	1/14/2015
Soluble Sodium	151	1.00		meq/L	1	1/14/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





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# Analytical Report

(consolidated)

WO#: **15010294**

Date Reported: **1/16/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/7/2015 8:50:00 AM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-007 **Matrix:** SOIL  
**Client Sample ID** WL-8 4-6

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	5,900	1,000		mg/Kg	100	1/13/2015 5:44:00 PM
TPH (Oil Range)	1,810	100		mg/Kg	10	1/13/2015 5:14:00 AM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/13/2015 5:44:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.36	0.10		mg/Kg-dry	1	1/15/2015 3:47:27 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.50	0.99		mg/Kg-dry	1	1/13/2015 4:51:39 PM
Barium	386	0.99		mg/Kg-dry	1	1/13/2015 4:51:39 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:51:39 PM
Chromium	12.3	0.99		mg/Kg-dry	1	1/13/2015 4:51:39 PM
Lead	25.5	0.99		mg/Kg-dry	1	1/13/2015 4:51:39 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/13/2015 4:51:39 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:51:39 PM
Zinc	50.8	0.99		mg/Kg-dry	1	1/13/2015 4:51:39 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	658	47		mg/Kg-dry	1	1/13/2015 5:49:36 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010294

Date Reported: 1/16/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/7/2015 9:05:00 AM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-008 **Matrix:** SOIL  
**Client Sample ID** WL-8 6-8

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	80.3	0.1		meq/100g	1	1/15/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	7,720	870		mg/Kg-dry	100	1/14/2015 9:35:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	25.8	0.10	*	mmhos/cm	1	1/13/2015 12:50:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	16.0	0.1	*	%	1	1/15/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.43	0.05		% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
pH Measurement	6.44	1.68		S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
Percent Moisture	58.4	1.0		wt%	1	1/8/2015 4:45:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	55.4	0.100	*		1	1/14/2015
Soluble Calcium	26.9	1.00		meq/L	1	1/14/2015
Soluble Magnesium	17.3	1.00		meq/L	1	1/14/2015
Soluble Sodium	260	1.00		meq/L	1	1/14/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010294**

Date Reported: **1/16/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/7/2015 9:05:00 AM  
**Project:** VPSB East White Lake Pit  
**Lab ID:** 15010294-008 **Matrix:** SOIL  
**Client Sample ID** WL-8 6-8

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	178	100		mg/Kg	10	1/13/2015 5:31:00 AM
TPH (Oil Range)	120	100		mg/Kg	10	1/13/2015 5:31:00 AM
Surr: 4-Terphenyl-d14	73.5	33 - 152		%REC	10	1/13/2015 5:31:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/15/2015 3:50:14 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.14	0.99		mg/Kg-dry	1	1/13/2015 4:55:02 PM
Barium	241	0.99		mg/Kg-dry	1	1/13/2015 4:55:02 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:55:02 PM
Chromium	8.11	0.99		mg/Kg-dry	1	1/13/2015 4:55:02 PM
Lead	8.51	0.99		mg/Kg-dry	1	1/13/2015 4:55:02 PM
Selenium	< 1.98	1.98		mg/Kg-dry	1	1/13/2015 4:55:02 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/13/2015 4:55:02 PM
Zinc	24.4	0.99		mg/Kg-dry	1	1/13/2015 4:55:02 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	424	48		mg/Kg-dry	1	1/13/2015 6:00:16 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** 13933

Sample ID	<b>15010294-001AMS-</b>	SampType: <b>MS</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/9/2015</b>	RunNo: <b>40670</b>					
Client ID:	<b>WL-7 0-2</b>	Batch ID: <b>13933</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/13/2015</b>	SeqNo: <b>976092</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)	122	10.0	100.0	39.14	82.4	14.5	174				
Surr: 4-Terphenyl-d14	2.85		3.330		85.6	33	152				

Sample ID	<b>15010294-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/9/2015</b>	RunNo: <b>40670</b>					
Client ID:	<b>WL-7 0-2</b>	Batch ID: <b>13933</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/13/2015</b>	SeqNo: <b>976093</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)	112	10.0	100.0	39.14	73.1	14.5	174	121.6	7.99	48.8	
Surr: 4-Terphenyl-d14	3.06		3.330		91.9	33	152		0	40	

Sample ID	<b>LCS-D13933</b>	SampType: <b>LCS</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/9/2015</b>	RunNo: <b>40670</b>					
Client ID:	<b>LCSS</b>	Batch ID: <b>13933</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/13/2015</b>	SeqNo: <b>976101</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)	91.7	10.0	100.0	0	91.7	63.4	109				
Surr: 4-Terphenyl-d14	2.89		3.330		86.9	33	152				

Sample ID	<b>LCSD-D13933</b>	SampType: <b>LCSD</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/9/2015</b>	RunNo: <b>40670</b>					
Client ID:	<b>LCSS02</b>	Batch ID: <b>13933</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/13/2015</b>	SeqNo: <b>976102</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)	96.2	10.0	100.0	0	96.2	63.4	109	91.69	4.84	17.2	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** 13933

Sample ID	<b>LCSD-D13933</b>	SampType: <b>LCSD</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/9/2015</b>	RunNo: <b>40670</b>					
Client ID:	<b>LCSS02</b>	Batch ID: <b>13933</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/13/2015</b>	SeqNo: <b>976102</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	2.96		3.330		88.9	33	152		0	40	

Sample ID	<b>LCSD-M13933</b>	SampType: <b>LCSD</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/9/2015</b>	RunNo: <b>40670</b>					
Client ID:	<b>LCSS02</b>	Batch ID: <b>13933</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/13/2015</b>	SeqNo: <b>976103</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)	107	10.0	100.0	0	107	63.9	120	97.15	9.25	16.6	
Surr: 4-Terphenyl-d14	2.99		3.330		89.7	33	152		0	40	

Sample ID	<b>LCS-M13933</b>	SampType: <b>LCS</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/9/2015</b>	RunNo: <b>40670</b>					
Client ID:	<b>LCSS</b>	Batch ID: <b>13933</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/13/2015</b>	SeqNo: <b>976104</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)	97.1	10.0	100.0	0	97.1	63.9	120				
Surr: 4-Terphenyl-d14	3.00		3.330		90.1	33	152				

Sample ID	<b>MB-13933</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/9/2015</b>	RunNo: <b>40670</b>					
Client ID:	<b>PBS</b>	Batch ID: <b>13933</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/13/2015</b>	SeqNo: <b>976105</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)	< 10.0	10.0									
TPH (Oil Range)	< 10.0	10.0									

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** 13933

Sample ID	<b>MB-13933</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40670</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13933</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976105</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 4-Terphenyl-d14      2.93      3.330      87.9      33      152

Sample ID	<b>15010294-001AMS-</b>	SampType:	<b>MS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40670</b>			
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>13933</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976106</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)      98.4      10.0      100.0      12.85      85.5      23.4      123  
 Surr: 4-Terphenyl-d14      2.66      3.330      79.9      33      152

Sample ID	<b>15010294-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40670</b>			
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>13933</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976107</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)      99.3      10.0      100.0      12.85      86.5      23.4      123      98.38      0.940      35.6  
 Surr: 4-Terphenyl-d14      2.69      3.330      80.6      33      152      0      40

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** 13956

Sample ID	<b>MB-13956</b>	SampType:	<b>MBLK</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40700</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13956</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976717</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		< 50		50							

Sample ID	<b>LCS-13956</b>	SampType:	<b>LCS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40700</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13956</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976718</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		4,120		50	5,000	0	82	75	125		

Sample ID	<b>LCSD-13956</b>	SampType:	<b>LCSD</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40700</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13956</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976721</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		4,100		50	5,000	0	82	75	125	4,120	0 20

Sample ID	<b>15010294-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40700</b>
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>13956</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976723</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		4,220		47	4,699	166	86	75	125		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** 13956

Sample ID	<b>15010294-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40700</b>		
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>13956</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976724</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium		4,150		47	4,690	166	85	75	125	4,223	2	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** 13957

Sample ID	<b>MB-13957</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40700</b>		
Client ID:	<b>PBS</b>	Batch ID:	<b>13957</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976700</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		< 1.00		1.00									
Barium		< 1.00		1.00									
Cadmium		< 0.50		0.50									
Chromium		< 1.00		1.00									
Lead		< 1.00		1.00									
Selenium		< 2.00		2.00									
Silver		< 0.50		0.50									
Zinc		< 1.00		1.00									

Sample ID	<b>LCS-13957</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40700</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>13957</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976701</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		51.4		1.00	50.00	0	103	80	120				
Barium		51.6		1.00	50.00	0	103	80	120				
Cadmium		51.5		0.50	50.00	0	103	80	120				
Chromium		51.3		1.00	50.00	0	103	80	120				
Lead		51.3		1.00	50.00	0	103	80	120				
Selenium		51.4		2.00	50.00	0	103	80	120				
Silver		26.0		0.50	25.00	0	104	80	120				
Zinc		51.3		1.00	50.00	0	103	80	120				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** 13957

Sample ID	<b>LCSD-13957</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40700</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13957</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976702</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	50.6	1.00	50.00	0	101	80	120	51.41	1.63	20	
Barium	51.6	1.00	50.00	0	103	80	120	51.58	0.08	20	
Cadmium	51.5	0.50	50.00	0	103	80	120	51.52	0.02	20	
Chromium	51.3	1.00	50.00	0	103	80	120	51.25	0.02	20	
Lead	51.2	1.00	50.00	0	102	80	120	51.33	0.33	20	
Selenium	51.4	2.00	50.00	0	103	80	120	51.36	0.08	20	
Silver	25.9	0.50	25.00	0	104	80	120	26.00	0.27	20	
Zinc	51.3	1.00	50.00	0	103	80	120	51.30	0.02	20	

Sample ID	<b>15010294-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40700</b>
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>13957</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976704</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	55.8	0.99	49.73	2.96	106	75	125				
Barium	174	0.99	49.73	123.8	102	75	125				
Cadmium	51.8	0.50	49.73	0.10	104	75	125				
Chromium	61.6	0.99	49.73	8.54	107	75	125				
Lead	59.0	0.99	49.73	8.36	102	75	125				
Selenium	45.0	1.99	49.73	0	90.4	75	125				
Silver	21.9	0.50	24.87	0	87.9	75	125				
Zinc	70.8	0.99	49.73	19.71	103	75	125				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** 13957

Sample ID	<b>15010294-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40700</b>
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>13957</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976705</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	56.4	0.99	49.74	2.96	107	75	125	55.79	1.03	20	
Barium	174	0.99	49.74	123.8	102	75	125	174.5	0.02	20	
Cadmium	51.7	0.50	49.74	0.10	104	75	125	51.78	0.11	20	
Chromium	61.4	0.99	49.74	8.54	106	75	125	61.61	0.42	20	
Lead	58.9	0.99	49.74	8.36	102	75	125	58.99	0.08	20	
Selenium	44.8	1.99	49.74	0	90.1	75	125	44.98	0.36	20	
Silver	21.8	0.50	24.87	0	87.5	75	125	21.85	0.44	20	
Zinc	70.8	0.99	49.74	19.71	103	75	125	70.82	0.08	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** 13976

Sample ID	<b>15010294-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>SAR_S</b>	Units:		Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40742</b>
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>13976</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>1/14/2015</b>	SeqNo:	<b>977873</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium Adsorption Ratio	14.0	0.100						13.94	0.142	20	*
Soluble Calcium	6.45	1.00						6.377	1.09	20	
Soluble Magnesium	6.08	1.00						6.031	0.883	20	
Soluble Sodium	34.9	1.00						34.73	0.637	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** 13994

Sample ID	<b>15010294-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>ESP_S</b>	Units:	<b>%</b>	Prep Date:	<b>1/13/2015</b>	RunNo:	<b>40770</b>		
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>13994</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>1/15/2015</b>	SeqNo:	<b>978626</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Exchangeable Sodium %		12.0		0.1						11.6	3.4	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** 13995

Sample ID	<b>15010294-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>CEC</b>	Units:	<b>meq/100g</b>	Prep Date:	<b>1/13/2015</b>	RunNo:	<b>40768</b>
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>13995</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>1/15/2015</b>	SeqNo:	<b>978563</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		27.2		0.1						27.1	0.4 20

Sample ID	<b>LCS-13995</b>	SampType:	<b>LCS</b>	TestCode:	<b>CEC</b>	Units:	<b>meq/100g</b>	Prep Date:	<b>1/13/2015</b>	RunNo:	<b>40768</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13995</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>1/15/2015</b>	SeqNo:	<b>978571</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		23.8		0.1	25.0	0	95.3	76	124		

Sample ID	<b>LCSD-13995</b>	SampType:	<b>LCSD</b>	TestCode:	<b>CEC</b>	Units:	<b>meq/100g</b>	Prep Date:	<b>1/13/2015</b>	RunNo:	<b>40768</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13995</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>1/15/2015</b>	SeqNo:	<b>978572</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		22.7		0.1	25.0	0	90.9	76	124	23.8	4.7 20

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** 14007

Sample ID	<b>MB-14007</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/15/2015</b>	RunNo:	<b>40771</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>14007</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/15/2015</b>	SeqNo:	<b>978636</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Mercury		< 0.10		0.10							

Sample ID	<b>LCS-14007</b>	SampType:	<b>LCS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/15/2015</b>	RunNo:	<b>40771</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>14007</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/15/2015</b>	SeqNo:	<b>978637</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Mercury		0.89		0.10	0.83	0	107	80	120		

Sample ID	<b>LCSD-14007</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/15/2015</b>	RunNo:	<b>40771</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>14007</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/15/2015</b>	SeqNo:	<b>978638</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Mercury		0.88		0.10	0.83	0	105	80	120	0.89	1.47 20

Sample ID	<b>15010294-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/15/2015</b>	RunNo:	<b>40771</b>
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>14007</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/15/2015</b>	SeqNo:	<b>978640</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Mercury		0.85		0.10	0.83	0	102	75	125		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** 14007

Sample ID	<b>15010294-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/15/2015</b>	RunNo:	<b>40771</b>		
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>14007</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/15/2015</b>	SeqNo:	<b>978641</b>				
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.84		0.10	0.83	0	101	75	125	0.85	0.98	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** R40593

Sample ID	<b>MB-R40593</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40593</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R40593</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>976437</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

< 0.05 0.05

Sample ID	<b>LCS-R40593</b>	SampType:	<b>LCS</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40593</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R40593</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>976438</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

0.23 0.05 0.20 0 113 70 130

Sample ID	<b>LCSD-R40593</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40593</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R40593</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>976439</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

0.22 0.05 0.20 0 109 70 130 0.23 3.38 40

Sample ID	<b>15010256-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40593</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R40593</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>976440</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

6.86 0.05 0.31 5.61 398 70 130 S

**NOTES:**

S - Analyte concentration in native sample was too high for accurate spike recovery(ies). The method is in control as indicated by the laboratory control sample (LCS).

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
	ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** R40593

Sample ID	15010256-001ADUP	SampType:	DUP	TestCode:	HEM_S	Units:	% dry wt	Prep Date:		RunNo:	40593		
Client ID:	ZZZZZZ	Batch ID:	R40593	TestNo:	SW9071B			Analysis Date:	1/12/2015	SeqNo:	976441		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
HEM, Oil & Grease		5.78		0.05						5.61	2.94	40	*

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** R40680

Sample ID	<b>MB-R40680</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>40680</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R40680</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976302</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity < 0.10 0.10

Sample ID	<b>R40680LCS1</b>	SampType:	<b>LCS1</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>40680</b>
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R40680</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976303</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity 0.48 0.10 0.47 0 101 89.87 110.12

Sample ID	<b>R40680LCS2</b>	SampType:	<b>LCS2</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>40680</b>
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R40680</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976304</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity 51.4 0.10 53.00 0 97.0 90 110

Sample ID	<b>15010294-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>40680</b>
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>R40680</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976305</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity 4.93 0.10 4.73 4.14 20 \*

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** R40694

Sample ID	<b>LCS-R40694</b>	SampType:	<b>LCS</b>	TestCode:	<b>PH_S</b>	Units:	<b>S.U.</b>	Prep Date:		RunNo:	<b>40694</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>R40694</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976539</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH Measurement		7.00		1.68	7.00	0	100	97.14	102.86				

Sample ID	<b>15010294-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>PH_S</b>	Units:	<b>S.U.</b>	Prep Date:		RunNo:	<b>40694</b>		
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>R40694</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976544</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH Measurement		6.33		1.68						6.38	0.79	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** R40712

Sample ID	<b>MB-R40712</b>	SampType:	<b>MBLK</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40712</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R40712</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/14/2015</b>	SeqNo:	<b>977172</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Chlorides	< 10		10								
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Sample ID	<b>LCSD-R40712</b>	SampType:	<b>LCSD</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40712</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R40712</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/14/2015</b>	SeqNo:	<b>977173</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Chlorides	114	10	100	0	114	80	120	106	6	20
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Sample ID	<b>LCS-R40712</b>	SampType:	<b>LCS</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40712</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R40712</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/14/2015</b>	SeqNo:	<b>977174</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Chlorides	106	10	100	0	106	80	120				
-----------	-----	----	-----	---	-----	----	-----	--	--	--	--

Sample ID	<b>15010294-008AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40712</b>
Client ID:	<b>WL-8 6-8</b>	Batch ID:	<b>R40712</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/14/2015</b>	SeqNo:	<b>977182</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Chlorides	16,700	870	8,700	7,721	103	80	120	16,060	4	20
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**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services

**Project:** VPSB East White Lake Pit

**BatchID:** R40712

Sample ID	<b>15010294-008AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40712</b>
Client ID:	<b>WL-8 6-8</b>	Batch ID:	<b>R40712</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/14/2015</b>	SeqNo:	<b>977184</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		16,100		870	8,700	7,721	96	80	120		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
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# QC SUMMARY REPORT

WO#: 15010294  
 16-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake Pit

**BatchID:** R40717

Sample ID	<b>15010294-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>PMOIST</b>	Units:	<b>wt%</b>	Prep Date:		RunNo:	<b>40717</b>		
Client ID:	<b>WL-7 0-2</b>	Batch ID:	<b>R40717</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/8/2015</b>	SeqNo:	<b>977066</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture		25.6		1.0						23.8	7.2	20	

Sample ID	<b>15010462-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>PMOIST</b>	Units:	<b>wt%</b>	Prep Date:		RunNo:	<b>40717</b>		
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R40717</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>977075</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture		20.5		1.0						21.0	2.5	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# Sample Log-In Check List

Client Name: **ICON\_ENV**

Work Order Number: **15010294**

RcptNo: **1**

Logged by:	<b>Danielle Hollier</b>	<b>1/8/2015 9:05:00 AM</b>	<i>Danielle Hollier</i>
Completed By:	<b>Danielle Hollier</b>	<b>1/8/2015 9:55:33 AM</b>	<i>Danielle Hollier</i>
Reviewed By:	<b>Caitlin Duplantis</b>	<b>1/12/2015 1:08:08 PM</b>	<i>Caitlin Duplantis</i>

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 Custody seals intact on shipping container/cooler? Yes  No  Not Present   
 No. Seal Date: Signed By:  
 5. Was an attempt made to cool the samples? Yes  No  NA   
 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
 7. Sample(s) in proper container(s)? Yes  No   
 8. Sufficient sample volume for indicated test(s)? Yes  No   
 9. Are samples (except VOA and ONG) properly preserved? Yes  No   
 10. Was preservative added to bottles? Yes  No  NA   
 11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  No VOA Vials   
 12. Were any sample containers received broken? Yes  No   
 13. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)  
 14. Are matrices correctly identified on Chain of Custody? Yes  No   
 15. Is it clear what analyses were requested? Yes  No   
 16. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

### Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.9	Good	Not Present			





Chain of Custody

Laboratory Number: 15010294

Client Information: **ICDN** Billing Information: **same** PO Number: **15010294** Page 1 of 1

Contact Name: **Greg Miller** Quote Number: **East White Lake Pit** Project Name/Number: **V.P.S.B.** Matrix Code: **DW = Drinking Water, WW = Waste Water, GW = Ground Water, AQ = Aqueous, OT = Other, SL = Sludge, SOL = Solid, O = Oil, SO = Soil, F = Food, SW = Swab, NG = Natural Gas, NGL = Natural Gas Liquid, PW = Produced Water, CF = Completion Fluid**

Address: **2049 Commercial Dr, Port Allen LA 70767** Shipper's Signature: **[Signature]** Shipping Method: **UPS / FedEx / NOW**

City, State Zip: **Port Allen LA 70767** Ext: **225-3448990** Bill Monthly:  Yes  No

DHL / Element / **Plant** / Mail

Sample ID/Description	Which Regulations Apply: <input type="checkbox"/> RCRA <input type="checkbox"/> Drinking Water <input type="checkbox"/> POTW <input type="checkbox"/> Distribution <input type="checkbox"/> NPDES <input type="checkbox"/> Special <input type="checkbox"/> USDA/FDA <input type="checkbox"/> State <input type="checkbox"/> RECAP/IRISC <input type="checkbox"/> Other	Turn Time <input type="checkbox"/> Standard <input type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> Other	Collection Information		Rush turn times will incur a surcharge and must be pre-approved by lab.	Container Quantity	Pres. HCl, HNO <sub>3</sub> , H <sub>2</sub> O <sub>2</sub> , NaOH, Na <sub>2</sub> SO <sub>3</sub>	Requested Tests	Comments
			Date	Time					
WL-7 (0-2')			1-6-15	1535	G	1	None	Full 298	Hold
WL-7 (2-4')			1-6-15	1555	G	1	None	TPH D+O	Until Icon
WL-7 (4-6')			1-6-15	1615	G	1	None	Soluble Chloride	Gives
WL-7 (6-8')			1-6-15	1630	G	1	None		Notice
WL-8 (0-2')			1-7-15	830	G	1	None		to
WL-8 (2-4')			1-7-15	835	G	1	None		Run
WL-8 (4-6')			1-7-15	850	G	1	None		
WL-8 (6-8')			1-7-15	905	G	1	None		

Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
<b>[Signature]</b>	1/8/15 9:05	<b>[Signature]</b>	1/8/15 9:05	Received at lab on ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 0.9

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

9201 Innovation Drive, Suite 115 Daleville, IN 47334-0568 USA P 765-378-4100 F 765-378-4105

629 Washington St, Suite 300 Columbus, IN 47201-6221 USA P 812-375-0531 F 812-375-0731

3121 East Washington Boulevard Fort Wayne, IN 46803-1328 USA P 260-471-7000 F 260-471-7777

909 Executive Dr Warrav, IN 46580-2368 USA P 574-767-3305 F 574-368-6889

3371 Cleveland Road, Suite 100A South Bend, IN 46628-9780 USA P 574-277-0707 F 574-273-6889

2417 W. Pinhook Rd Lafayette, LA 70508-3344 USA P 337-235-0483 F 337-235-6640



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# Analytical Report

(consolidated)

WO#: 15010291

Date Reported: 1/14/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/7/2015 12:45:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010291-001 **Matrix:** AQUEOUS  
**Client Sample ID** WL-6

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN WATER BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN WATER BY SW8015</b>					<b>SW3510C</b>	
TPH (Diesel Range)	0.85	0.13		mg/L	1	1/12/2015 6:08:00 PM
TPH (Oil Range)	0.33	0.12		mg/L	1	1/12/2015 6:08:00 PM
Surr: 4-Terphenyl-d14	74.1	36.8 - 128		%REC	1	1/12/2015 6:08:00 PM
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH-GRO IN WATER BY SW8015</b>						
TPH (Gasoline Range)	< 0.15	0.15		mg/L	1	1/9/2015 8:01:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	97.8	70 - 130		%REC	1	1/9/2015 8:01:00 PM
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>					<b>SW8021B</b>	Analyst: <b>MMV</b>
<b>BTEX IN WATER BY SW8021</b>						
Benzene	< 0.00500	0.00500		mg/L	1	1/9/2015 8:01:00 PM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	1/9/2015 8:01:00 PM
Toluene	< 0.0100	0.0100		mg/L	1	1/9/2015 8:01:00 PM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	1/9/2015 8:01:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	90.0	70 - 130		%REC	1	1/9/2015 8:01:00 PM
<b>RCRA METALS - SW6010/7470A</b>					<b>SW7470A</b>	Analyst: <b>SRM</b>
<b>MERCURY IN GROUND WATER, TOTAL</b>						
Mercury	< 0.0002	0.0002		mg/L	1	1/9/2015 3:15:20 PM
<b>INORGANIC ANIONS IN WATER BY IC</b>					<b>SW9056A</b>	Analyst: <b>TBB</b>
Bromide	22.4	5.00		mg/L	50	1/9/2015 5:41:59 PM
Chloride	16,600	250		mg/L	1000	1/9/2015 12:39:50 PM
Sulfate		250		mg/L	1000	1/9/2015 12:39:50 PM
<b>RCRA METALS - SW6010/7470A</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN WATER BY ICP, TOTALS</b>						
Arsenic	< 0.010	0.010		mg/L	1	1/9/2015 7:46:34 PM
Barium	11.8	0.010		mg/L	1	1/9/2015 7:46:34 PM
Cadmium	< 0.005	0.005		mg/L	1	1/9/2015 7:46:34 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: **15010291**

Date Reported: **1/14/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/7/2015 12:45:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010291-001 **Matrix:** AQUEOUS  
**Client Sample ID** WL-6

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>RCRA METALS - SW6010/7470A</b>				<b>SW6010B</b>	Analyst: <b>STS</b>	
<b>METALS IN WATER BY ICP, TOTALS</b>						
Calcium	546	5.00		mg/L	10	1/9/2015 2:08:18 PM
Chromium	< 0.010	0.010		mg/L	1	1/9/2015 7:46:34 PM
Iron	17.3	1.00		mg/L	100	1/12/2015 3:54:19 PM
Lead	< 0.010	0.010		mg/L	1	1/9/2015 7:46:34 PM
Magnesium	584	5.00		mg/L	10	1/9/2015 2:08:18 PM
Manganese	4.90	0.010		mg/L	1	1/9/2015 7:46:34 PM
Potassium	58.2	50.0		mg/L	10	1/9/2015 2:08:18 PM
Selenium	0.058	0.020		mg/L	1	1/9/2015 7:46:34 PM
Sodium	7,840	500		mg/L	100	1/9/2015 2:06:21 PM
Strontium	18.7	1.00		mg/L	100	1/12/2015 3:54:19 PM
Zinc	0.017	0.010		mg/L	1	1/9/2015 7:46:34 PM
<b>ALKALINITY; TOTAL, CARB, BICARB</b>				<b>SM2320 B</b>	Analyst: <b>TBB</b>	
Alkalinity, Bicarbonate (As CaCO3)	415	10		mgCaCO3/L	1	1/12/2015 9:51:49 AM
Alkalinity, Carbonate (As CaCO3)	< 10	10		mgCaCO3/L	1	1/12/2015 9:51:49 AM
<b>TOTAL DISSOLVED SOLIDS</b>				<b>SM2540C</b>	Analyst: <b>GMS</b>	
Total Dissolved Solids (Residue, Filterable)	32,800	2,000		mg/L	100	1/8/2015 10:33:00 AM

**Qualifiers:**

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
C Value is below Minimum Compound Limit.	E Value above quantitation range
H Holding times for preparation or analysis exceeded	M Matrix Interference
N Tentatively identified compounds	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Second column confirmation exceeds
PL Permit Limit	R RPD outside accepted recovery limits
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PRELIMINARY



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# Analytical Report

(consolidated)

WO#: 15010291

Date Reported: 1/14/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/7/2015 12:45:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010291-002 **Matrix:** AQUEOUS  
**Client Sample ID** DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>RCRA METALS - SW6010/7470A</b>					<b>SW7470A</b>	Analyst: <b>SRM</b>
<b>MERCURY IN GROUND WATER, TOTAL</b>						
Mercury	< 0.0002	0.0002		mg/L	1	1/9/2015 3:29:01 PM
<b>INORGANIC ANIONS IN WATER BY IC</b>					<b>SW9056A</b>	Analyst: <b>TBB</b>
Bromide	20.7	5.00		mg/L	50	1/9/2015 5:55:42 PM
Chloride	16,500	250		mg/L	1000	1/9/2015 12:53:35 PM
Sulfate		250		mg/L	1000	1/9/2015 12:53:35 PM
<b>RCRA METALS - SW6010/7470A</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN WATER BY ICP, TOTALS</b>						
Arsenic	< 0.010	0.010		mg/L	1	1/9/2015 7:49:34 PM
Barium	11.8	0.010		mg/L	1	1/9/2015 7:49:34 PM
Cadmium	< 0.005	0.005		mg/L	1	1/9/2015 7:49:34 PM
Calcium	538	5.00		mg/L	10	1/9/2015 2:12:13 PM
Chromium	< 0.010	0.010		mg/L	1	1/9/2015 7:49:34 PM
Iron	16.0	1.00		mg/L	100	1/12/2015 3:59:32 PM
Lead	< 0.010	0.010		mg/L	1	1/9/2015 7:49:34 PM
Magnesium	577	5.00		mg/L	10	1/9/2015 2:12:13 PM
Manganese	4.92	0.010		mg/L	1	1/9/2015 7:49:34 PM
Potassium	58.5	50.0		mg/L	10	1/9/2015 2:12:13 PM
Selenium	0.061	0.020		mg/L	1	1/9/2015 7:49:34 PM
Sodium	7,770	500		mg/L	100	1/9/2015 2:10:15 PM
Strontium	18.2	1.00		mg/L	100	1/12/2015 3:59:32 PM
Zinc	0.014	0.010		mg/L	1	1/9/2015 7:49:34 PM
<b>TOTAL DISSOLVED SOLIDS</b>					<b>SM2540C</b>	Analyst: <b>GMS</b>
Total Dissolved Solids (Residue, Filterable)	31,600	2,000		mg/L	100	1/8/2015 10:33:00 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- C Value is below Minimum Compound Limit.
- H Holding times for preparation or analysis exceeded
- N Tentatively identified compounds
- O RSD is greater than RSDlimit
- PL Permit Limit
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- M Matrix Interference
- ND Not Detected at the Reporting Limit
- P Second column confirmation exceeds
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

PRELIMINARY



Element Materials Technology Lafayette  
 2417 W. Pinhook Road  
 Lafayette, LA 70508-3344  
 TEL: (337) 235-0483 FAX: (337) 233-6540  
 Website: [www.element.com](http://www.element.com)

# Analytical Report

(consolidated)

WO#: **15010291**

Date Reported: **1/14/2015**

**CLIENT:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010291-003  
**Client Sample ID** Trip Blank

**Collection Date:** 1/7/2015

**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>				<b>SW8015B</b>	Analyst: <b>MMV</b>	
<b>TPH-GRO IN WATER BY SW8015</b>						
TPH (Gasoline Range)	< 0.15	0.15		mg/L	1	1/9/2015 6:40:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	99.6	70 - 130		%REC	1	1/9/2015 6:40:00 PM
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>				<b>SW8021B</b>	Analyst: <b>MMV</b>	
<b>BTEX IN WATER BY SW8021</b>						
Benzene	< 0.00500	0.00500		mg/L	1	1/9/2015 6:40:00 PM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	1/9/2015 6:40:00 PM
Toluene	< 0.0100	0.0100		mg/L	1	1/9/2015 6:40:00 PM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	1/9/2015 6:40:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	89.8	70 - 130		%REC	1	1/9/2015 6:40:00 PM

**Qualifiers:**

- |  |   |
|--|---|
| * Value exceeds Maximum Contaminant Level.           | B Analyte detected in the associated Method Blank |
| C Value is below Minimum Compound Limit.             | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded | M Matrix Interference                             |
| N Tentatively identified compounds                   | ND Not Detected at the Reporting Limit            |
| O RSD is greater than RSDlimit                       | P Second column confirmation exceeds              |
| PL Permit Limit                                      | R RPD outside accepted recovery limits            |
| RL Reporting Detection Limit                         | S Spike Recovery outside accepted recovery limits |

PRELIMINARY



Chain of Custody

Laboratory Number: 15010001

Client Information: **CON Environmental**  
 Contact Name: **Greg Miller**  
 Address: **204A Cornelia Dr**  
 City, State Zip: **Pole 411, Mt Zion**  
 Phone Number: **252-544-8460**  
 Fax Number: **252-544-8460**  
 E-mail Address:

Billing Information: PO Number: **9077-041-0100**  
 Quote Number: **SIME**  
 Required QC Level:

Project Name/Number: **NPS Est Whix Lake**  
 Sampler's Signature: *[Signature]*  
 Shipping Method: **UPS / FedEx / NOW**  
**DHL / Element / Hand / Mail**

Matrix Code:  
 DW = Drinking Water  
 WW = Waste Water  
 GW = Ground Water  
 AQ = Aqueous  
 OT = Other  
 SL = Sludge  
 O = Oil  
 F = Food  
 NG = Natural Gas  
 PW = Produced Water  
 CF = Completion Fluid  
 SOI = Solid  
 SO = Sol  
 SW = Swab  
 NGL = Natural Gas Liquid

Sample ID/Description	Which Regulations Apply:			Turn Time <input type="checkbox"/> Standard <input type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input checked="" type="checkbox"/> 2 Day <input type="checkbox"/> Other	Rush Turn times Will incur a surcharge and must be pre-approved by (lab.)	Container		Pres.	Requested Tests		Comments			
	Collection Information					Type	Quantity		G=Glass, V=Vial	TPH-D/O		X Cl-/TDS	X Total Metals	X Gtms/Anions
	Date	Time	Grab/Composite											
WLG	1/7/15	1245	G	AQ		P	6 V	HCl, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , NaOH, Na <sub>2</sub> SO <sub>4</sub>	X	X	X	* 2 Day Turn Time		
DUP	-	-	G	AQ		P	4 V	HCl, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub>	X	X	X			
TRIP Blank	-	-	-	AQ		V	4 V	HCl, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub>	X	X	X			

Relinquished by: *[Signature]* Date/Time: **1/8/15 9:05 AM**  
 Received by: *[Signature]* Date/Time: **1/8/15 9:05 AM**

Field Notes:  
 Received at lab on ice?  Yes  No Temp: **1.0**

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

9301 Innovation Drive, Suite 115  
 Daleville, IN 47334-0519 USA  
 P 765-378-4103  
 F 765-378-4109

623 Washington St, Suite 300  
 Columbus, IN 47201-0231 USA  
 P 812-375-0231  
 F 812-375-0731

2121 East Washington Boulevard  
 Fort Wayne, IN 46803-1328 USA  
 P 260-471-7000  
 F 260-471-7777

909 Executive Dr  
 Warsaw, IN 46580-2368 USA  
 P 574-257-3305  
 F 574-256-5555

3371 Cleveland Road, Suite 100A  
 South Bend, IN 46628-9750 USA  
 P 574-277-0707  
 F 574-273-5909

2417 W. Pinhook Rd  
 Lafayette, LA 70506-3344 USA  
 P 337-235-0483  
 F 337-233-6540



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January 19, 2015

Greg Miller  
ICON Environmental Services  
2049 Commercial Drive  
Port Allen, LA 70767  
TEL: (225) 344-8490  
FAX (225) 344-6654

RE: VPSB East White Lake 9077-041-0800

Order No.: 15010291

Dear Greg Miller:

Element Materials Technology Lafayette, LLC received 3 sample(s) on 1/8/2015 for the analyses presented in the following report.

In accordance with your instructions Element Lafayette conducted the analysis shown on the following pages on samples submitted by your company. The results related only to the items tested. Unless otherwise noted, all analyses were conducted using EPA approved methodologies and all test results meet all requirements of TNI. All relevant sampling information is on the attached Chain-of-Custody form.

All soil data, except for 29-B, are on a wet-weight basis unless otherwise indicated in the units field as –dry.

LELAP Certification No.: 01997. TCEQ Certification No.: T104704261-14-6. A scope of accredited parameters is available upon request. A "#" by the test method or analyte indicates this parameter is outside the scope of accreditation.

Estimated uncertainty is available upon request. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in blue ink that reads 'Annie Reedy'.

Annie Reedy  
Manager, Analytical Services  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344



Element Materials Technology Lafayette  
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Lafayette, LA 70508-3344  
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Website: [www.element.com](http://www.element.com)

## Case Narrative

WO#: 15010291  
Date: 1/19/2015

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**CLIENT:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

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Unless specified by the client, a duplicate or MS/MSD, wherever applicable, is randomly selected and analyzed from each analytical batch provided sample volume is sufficient. The sample chosen for duplicate or MS/MSD may or may not be a sample submitted in this workorder. A method blank and/or a lab control sample (LCS)/lab control sample duplicate (LCSD), wherever applicable, are processed as a quality control check for each analytical batch. When the matrix QC data is not available due to insufficient sample volume or when the results indicate possible matrix effect, the validity of the batch is determined by the method blank and LCS/LCSD.

The results of the laboratory internal quality control data are provided in the QC Summary Report section of the report for your review. Laboratory-related QC exceptions that may impact the validity of data are discussed in the case narrative. Sample-related QC exceptions are flagged either in the results page(s) or in the QC report page(s). End users should consider QC exceptions when evaluating sample data against data quality objectives.

Any other exceptions associated with this report will be footnoted in the results page(s) or the QC summary page(s).





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# Analytical Report

(consolidated)

WO#: 15010291

Date Reported: 1/19/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/7/2015 12:45:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010291-001 **Matrix:** AQUEOUS  
**Client Sample ID** WL-6

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN WATER BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN WATER BY SW8015</b>					<b>SW3510C</b>	
TPH (Diesel Range)	0.85	0.13		mg/L	1	1/12/2015 6:08:00 PM
TPH (Oil Range)	0.33	0.12		mg/L	1	1/12/2015 6:08:00 PM
Surr: 4-Terphenyl-d14	74.1	36.8 - 128		%REC	1	1/12/2015 6:08:00 PM
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH-GRO IN WATER BY SW8015</b>						
TPH (Gasoline Range)	< 0.15	0.15		mg/L	1	1/9/2015 8:01:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	97.8	70 - 130		%REC	1	1/9/2015 8:01:00 PM
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>					<b>SW8021B</b>	Analyst: <b>MMV</b>
<b>BTEX IN WATER BY SW8021</b>						
Benzene	< 0.00500	0.00500		mg/L	1	1/9/2015 8:01:00 PM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	1/9/2015 8:01:00 PM
Toluene	< 0.0100	0.0100		mg/L	1	1/9/2015 8:01:00 PM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	1/9/2015 8:01:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	90.0	70 - 130		%REC	1	1/9/2015 8:01:00 PM
<b>RCRA METALS - SW6010/7470A</b>					<b>SW7470A</b>	Analyst: <b>SRM</b>
<b>MERCURY IN GROUND WATER, TOTAL</b>						
Mercury	< 0.0002	0.0002		mg/L	1	1/9/2015 3:15:20 PM
<b>INORGANIC ANIONS IN WATER BY IC</b>					<b>SW9056A</b>	Analyst: <b>TBB</b>
Bromide	22.4	5.00		mg/L	50	1/9/2015 5:41:59 PM
Chloride	16,600	250		mg/L	1000	1/9/2015 12:39:50 PM
Sulfate	27.8	12.5		mg/L	50	1/9/2015 5:41:59 PM
<b>RCRA METALS - SW6010/7470A</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN WATER BY ICP, TOTALS</b>						
Arsenic	< 0.010	0.010		mg/L	1	1/9/2015 7:46:34 PM
Barium	11.8	0.010		mg/L	1	1/9/2015 7:46:34 PM
Cadmium	< 0.005	0.005		mg/L	1	1/9/2015 7:46:34 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010291**

Date Reported: **1/19/2015**

**CLIENT:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010291-001  
**Client Sample ID** WL-6

**Collection Date:** 1/7/2015 12:45:00 PM

**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>RCRA METALS - SW6010/7470A</b>				<b>SW6010B</b>	Analyst: <b>STS</b>	
<b>METALS IN WATER BY ICP, TOTALS</b>						
Calcium	546	5.00		mg/L	10	1/9/2015 2:08:18 PM
Chromium	< 0.010	0.010		mg/L	1	1/9/2015 7:46:34 PM
Iron	17.3	1.00		mg/L	100	1/12/2015 3:54:19 PM
Lead	< 0.010	0.010		mg/L	1	1/9/2015 7:46:34 PM
Magnesium	584	5.00		mg/L	10	1/9/2015 2:08:18 PM
Manganese	4.90	0.010		mg/L	1	1/9/2015 7:46:34 PM
Potassium	58.2	50.0		mg/L	10	1/9/2015 2:08:18 PM
Selenium	0.058	0.020		mg/L	1	1/9/2015 7:46:34 PM
Sodium	7,840	500		mg/L	100	1/9/2015 2:06:21 PM
Strontium	18.7	1.00		mg/L	100	1/12/2015 3:54:19 PM
Zinc	0.017	0.010		mg/L	1	1/9/2015 7:46:34 PM
<b>ALKALINITY; TOTAL, CARB, BICARB</b>				<b>SM2320 B</b>	Analyst: <b>TBB</b>	
Alkalinity, Bicarbonate (As CaCO3)	415	10		mgCaCO3/L	1	1/12/2015 9:51:49 AM
Alkalinity, Carbonate (As CaCO3)	< 10	10		mgCaCO3/L	1	1/12/2015 9:51:49 AM
<b>TOTAL DISSOLVED SOLIDS</b>				<b>SM2540C</b>	Analyst: <b>GMS</b>	
Total Dissolved Solids (Residue, Filterable)	32,800	2,000		mg/L	100	1/8/2015 10:33:00 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010291**

Date Reported: **1/19/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/7/2015 12:45:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010291-002 **Matrix:** AQUEOUS  
**Client Sample ID** DUP

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>RCRA METALS - SW6010/7470A</b>				<b>SW7470A</b>	Analyst: <b>SRM</b>	
<b>MERCURY IN GROUND WATER, TOTAL</b>						
Mercury	< 0.0002	0.0002		mg/L	1	1/9/2015 3:29:01 PM
<b>INORGANIC ANIONS IN WATER BY IC</b>				<b>SW9056A</b>	Analyst: <b>TBB</b>	
Bromide	20.7	5.00		mg/L	50	1/9/2015 5:55:42 PM
Chloride	16,500	250		mg/L	1000	1/9/2015 12:53:35 PM
Sulfate	32.5	12.5		mg/L	50	1/9/2015 5:55:42 PM
<b>RCRA METALS - SW6010/7470A</b>				<b>SW6010B</b>	Analyst: <b>STS</b>	
<b>METALS IN WATER BY ICP, TOTALS</b>						
Arsenic	< 0.010	0.010		mg/L	1	1/9/2015 7:49:34 PM
Barium	11.8	0.010		mg/L	1	1/9/2015 7:49:34 PM
Cadmium	< 0.005	0.005		mg/L	1	1/9/2015 7:49:34 PM
Calcium	538	5.00		mg/L	10	1/9/2015 2:12:13 PM
Chromium	< 0.010	0.010		mg/L	1	1/9/2015 7:49:34 PM
Iron	16.0	1.00		mg/L	100	1/12/2015 3:59:32 PM
Lead	< 0.010	0.010		mg/L	1	1/9/2015 7:49:34 PM
Magnesium	577	5.00		mg/L	10	1/9/2015 2:12:13 PM
Manganese	4.92	0.010		mg/L	1	1/9/2015 7:49:34 PM
Potassium	58.5	50.0		mg/L	10	1/9/2015 2:12:13 PM
Selenium	0.061	0.020		mg/L	1	1/9/2015 7:49:34 PM
Sodium	7,770	500		mg/L	100	1/9/2015 2:10:15 PM
Strontium	18.2	1.00		mg/L	100	1/12/2015 3:59:32 PM
Zinc	0.014	0.010		mg/L	1	1/9/2015 7:49:34 PM
<b>TOTAL DISSOLVED SOLIDS</b>				<b>SM2540C</b>	Analyst: <b>GMS</b>	
Total Dissolved Solids (Residue, Filterable)	31,600	2,000		mg/L	100	1/8/2015 10:33:00 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010291**

Date Reported: **1/19/2015**

**CLIENT:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010291-003  
**Client Sample ID** Trip Blank

**Collection Date:** 1/7/2015

**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>				<b>SW8015B</b>	Analyst: <b>MMV</b>	
<b>TPH-GRO IN WATER BY SW8015</b>						
TPH (Gasoline Range)	< 0.15	0.15		mg/L	1	1/9/2015 6:40:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	99.6	70 - 130		%REC	1	1/9/2015 6:40:00 PM
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>				<b>SW8021B</b>	Analyst: <b>MMV</b>	
<b>BTEX IN WATER BY SW8021</b>						
Benzene	< 0.00500	0.00500		mg/L	1	1/9/2015 6:40:00 PM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	1/9/2015 6:40:00 PM
Toluene	< 0.0100	0.0100		mg/L	1	1/9/2015 6:40:00 PM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	1/9/2015 6:40:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	89.8	70 - 130		%REC	1	1/9/2015 6:40:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13920

Sample ID	<b>MB-13920</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HG_W_7470</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40604</b>			
Client ID:	<b>PBW</b>	Batch ID:	<b>13920</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974017</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		< 0.0002		0.0002										

Sample ID	<b>LCS-13920</b>	SampType:	<b>LCS</b>	TestCode:	<b>HG_W_7470</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40604</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>13920</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974018</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.0104		0.0002	0.0100	0		104	80	120				

Sample ID	<b>15010291-001DMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HG_W_7470</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40604</b>			
Client ID:	<b>WL-6</b>	Batch ID:	<b>13920</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974023</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.0089		0.0002	0.0100	0		89.1	75	125				

Sample ID	<b>15010291-001DMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>HG_W_7470</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40604</b>			
Client ID:	<b>WL-6</b>	Batch ID:	<b>13920</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974024</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.0085		0.0002	0.0100	0		85.1	75	125	0.0089	4.61	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13921

Sample ID	<b>MB-13921</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40661</b>			
Client ID:	<b>PBW</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975805</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron		< 0.010		0.010										
Strontium		< 0.010		0.010										

Sample ID	<b>LCS-13921</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40661</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975806</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron		0.489		0.010	0.500	0		97.9	80	120				
Strontium		0.490		0.010	0.500	0		98.0	80	120				

Sample ID	<b>LCSD-13921</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40661</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975807</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron		0.493		0.010	0.500	0		98.6	80	120	0.489	0.774	20	
Strontium		0.491		0.010	0.500	0		98.3	80	120	0.490	0.245	20	

Sample ID	<b>15010274-002DMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40661</b>			
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975811</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron		23.1		0.100	0.500	22.56		106	75	125				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13921

Sample ID	<b>15010274-002DMS</b>	SampType: <b>MS</b>	TestCode: <b>6010_W</b>	Units: <b>mg/L</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40661</b>					
Client ID:	<b>ZZZZZZ</b>	Batch ID: <b>13921</b>	TestNo: <b>SW6010B</b>	Analysis Date: <b>1/12/2015</b>	SeqNo: <b>975811</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Strontium	2.92	0.100	0.500	2.488	87.0	75	125				

Sample ID	<b>15010274-002DMSD</b>	SampType: <b>MSD</b>	TestCode: <b>6010_W</b>	Units: <b>mg/L</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40661</b>					
Client ID:	<b>ZZZZZZ</b>	Batch ID: <b>13921</b>	TestNo: <b>SW6010B</b>	Analysis Date: <b>1/12/2015</b>	SeqNo: <b>975812</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	23.6	0.100	0.500	22.56	214	75	125	23.09	2.31	20	S
Strontium	2.96	0.100	0.500	2.488	93.6	75	125	2.923	1.12	20	

**NOTES:**

S - Spike recovery outside of recovery limits due to dilution. The method is in control as indicated by the laboratory control sample(s).

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13921

Sample ID	<b>MB-13921</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40609</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974245</b>					
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		< 0.010		0.010												
Barium		< 0.010		0.010												
Cadmium		< 0.005		0.005												
Chromium		< 0.010		0.010												
Lead		< 0.010		0.010												
Manganese		< 0.010		0.010												
Selenium		< 0.020		0.020												
Zinc		< 0.010		0.010												

Sample ID	<b>LCS-13921</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40609</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974246</b>					
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		0.494		0.010		0.500		0		98.9	80	120				
Barium		0.486		0.010		0.500		0		97.2	80	120				
Cadmium		0.484		0.005		0.500		0		96.8	80	120				
Chromium		0.478		0.010		0.500		0		95.6	80	120				
Lead		0.486		0.010		0.500		0		97.2	80	120				
Manganese		0.481		0.010		0.500		0		96.2	80	120				
Selenium		0.488		0.020		0.500		0		97.6	80	120				
Zinc		0.492		0.010		0.500		0		98.5	80	120				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13921

Sample ID	<b>LCSD-13921</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40609</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974247</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.490	0.010	0.500	0	98.0	80	120	0.494	0.955	20	
Barium	0.483	0.010	0.500	0	96.5	80	120	0.486	0.681	20	
Cadmium	0.481	0.005	0.500	0	96.2	80	120	0.484	0.622	20	
Chromium	0.474	0.010	0.500	0	94.8	80	120	0.478	0.819	20	
Lead	0.482	0.010	0.500	0	96.5	80	120	0.486	0.682	20	
Manganese	0.478	0.010	0.500	0	95.5	80	120	0.481	0.730	20	
Selenium	0.486	0.020	0.500	0	97.3	80	120	0.488	0.328	20	
Zinc	0.489	0.010	0.500	0	97.9	80	120	0.492	0.632	20	

Sample ID	<b>15010274-002DMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40609</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974249</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.552	0.010	0.500	0.029	105	75	125				
Barium	2.39	0.010	0.500	1.953	86.6	75	125				
Cadmium	0.492	0.005	0.500	0.001	98.1	75	125				
Chromium	0.485	0.010	0.500	0.006	95.8	75	125				
Lead	0.448	0.010	0.500	0	89.7	75	125				
Manganese	1.21	0.010	0.500	0.766	88.8	75	125				
Selenium	0.525	0.020	0.500	0.016	102	75	125				
Zinc	0.503	0.010	0.500	0.016	97.3	75	125				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13921

Sample ID	<b>15010274-002DMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40609</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974250</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.571	0.010	0.500	0.029	108	75	125	0.552	3.42	20	
Barium	2.52	0.010	0.500	1.953	113	75	125	2.386	5.38	20	
Cadmium	0.497	0.005	0.500	0.001	99.2	75	125	0.492	1.11	20	
Chromium	0.488	0.010	0.500	0.006	96.4	75	125	0.485	0.596	20	
Lead	0.455	0.010	0.500	0	90.9	75	125	0.448	1.42	20	
Manganese	1.27	0.010	0.500	0.766	99.8	75	125	1.210	4.44	20	
Selenium	0.530	0.020	0.500	0.016	103	75	125	0.525	1.00	20	
Zinc	0.508	0.010	0.500	0.016	98.5	75	125	0.503	1.13	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13921

Sample ID	<b>MB-13921</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40598</b>
Client ID:	<b>PBW</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>973794</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	< 0.500	0.500									
Magnesium	< 0.500	0.500									
Potassium	< 5.00	5.00									
Sodium	< 5.00	5.00									

Sample ID	<b>LCS-13921</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40598</b>
Client ID:	<b>LCSW</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>973795</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	49.0	0.500	50.00	0	98.0	80	120				
Magnesium	48.8	0.500	50.00	0	97.6	80	120				
Potassium	47.5	5.00	50.00	0	95.0	80	120				
Sodium	47.5	5.00	50.00	0	95.0	80	120				

Sample ID	<b>LCSD-13921</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40598</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>973796</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	48.8	0.500	50.00	0	97.6	80	120	48.98	0.389	20	
Magnesium	48.3	0.500	50.00	0	96.7	80	120	48.82	1.01	20	
Potassium	47.4	5.00	50.00	0	94.8	80	120	47.51	0.274	20	
Sodium	49.0	5.00	50.00	0	98.0	80	120	47.52	3.07	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13921

Sample ID	<b>15010274-002DMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40598</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>973798</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	308	0.500	50.00	279.1	58.2	75	125				S
Magnesium	146	0.500	50.00	110.6	69.8	75	125				S
Potassium	43.9	5.00	50.00	7.045	73.7	75	125				S
Sodium	183	5.00	50.00	149.2	67.2	75	125				S

**NOTES:**  
 S - Spike recovery indicates matrix interference. The method is in control as indicated by the Lab Control Sample.

Sample ID	<b>15010274-002DMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40598</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13921</b>	TestNo:	<b>SW6010B</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>973799</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	330	0.500	50.00	279.1	102	75	125	308.2	6.80	20	
Magnesium	154	0.500	50.00	110.6	86.0	75	125	145.5	5.42	20	
Potassium	45.4	5.00	50.00	7.045	76.7	75	125	43.88	3.36	20	
Sodium	193	5.00	50.00	149.2	87.2	75	125	182.8	5.32	20	

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13942

Sample ID	<b>LCS-D13942</b>	SampType: <b>LCS</b>	TestCode: <b>8015_DO_W</b>	Units: <b>mg/L</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40669</b>					
Client ID:	<b>LCSW</b>	Batch ID: <b>13942</b>	TestNo: <b>SW8015B</b>	<b>SW3510C</b>	Analysis Date: <b>1/12/2015</b>	SeqNo: <b>976077</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	2.58	0.13	3.00	0	86.1	62.3	110
Surr: 4-Terphenyl-d14	0.05		0.10		50.9	36.8	128

Sample ID	<b>LCSD-D13942</b>	SampType: <b>LCSD</b>	TestCode: <b>8015_DO_W</b>	Units: <b>mg/L</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40669</b>					
Client ID:	<b>LCSS02</b>	Batch ID: <b>13942</b>	TestNo: <b>SW8015B</b>	<b>SW3510C</b>	Analysis Date: <b>1/12/2015</b>	SeqNo: <b>976078</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	2.66	0.13	3.00	0	88.8	62.3	110	2.58	3.09	14.1
Surr: 4-Terphenyl-d14	0.07		0.10		68.6	36.8	128		0	40

Sample ID	<b>LCSD-M13942</b>	SampType: <b>LCSD</b>	TestCode: <b>8015_DO_W</b>	Units: <b>mg/L</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40669</b>					
Client ID:	<b>LCSS02</b>	Batch ID: <b>13942</b>	TestNo: <b>SW8015B</b>	<b>SW3510C</b>	Analysis Date: <b>1/12/2015</b>	SeqNo: <b>976079</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	3.03	0.12	3.00	0	101	63.8	124	2.89	4.62	23.2
Surr: 4-Terphenyl-d14	0.06		0.10		62.0	36.8	128		0	40

Sample ID	<b>LCS-M13942</b>	SampType: <b>LCS</b>	TestCode: <b>8015_DO_W</b>	Units: <b>mg/L</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40669</b>					
Client ID:	<b>LCSW</b>	Batch ID: <b>13942</b>	TestNo: <b>SW8015B</b>	<b>SW3510C</b>	Analysis Date: <b>1/12/2015</b>	SeqNo: <b>976080</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	2.89	0.12	3.00	0	96.4	63.8	124
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**Qualifiers:**

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E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits		



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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13942

Sample ID	<b>LCS-M13942</b>	SampType:	<b>LCS</b>	TestCode:	<b>8015_DO_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40669</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>13942</b>	TestNo:	<b>SW8015B</b>	<b>SW3510C</b>		Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>976080</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 4-Terphenyl-d14      0.06      0.10      60.9      36.8      128

Sample ID	<b>MB-13942</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_DO_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40669</b>			
Client ID:	<b>PBW</b>	Batch ID:	<b>13942</b>	TestNo:	<b>SW8015B</b>	<b>SW3510C</b>		Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>976081</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)      < 0.13      0.13  
 TPH (Oil Range)      < 0.12      0.12  
 Surr: 4-Terphenyl-d14      0.08      0.10      77.1      36.8      128

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40549

Sample ID	<b>MB-R40549</b>	SampType:	<b>MBLK</b>	TestCode:	<b>TDS_2540C</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40549</b>											
Client ID:	<b>PBW</b>	Batch ID:	<b>R40549</b>	TestNo:	<b>SM2540C</b>			Analysis Date:	<b>1/8/2015</b>	SeqNo:	<b>974686</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual

Total Dissolved Solids (Residue, Filterable) < 20 20

Sample ID	<b>LCSD-R40549</b>	SampType:	<b>LCSD</b>	TestCode:	<b>TDS_2540C</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40549</b>											
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R40549</b>	TestNo:	<b>SM2540C</b>			Analysis Date:	<b>1/8/2015</b>	SeqNo:	<b>974687</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual

Total Dissolved Solids (Residue, Filterable) 970 20 1,000 0 97 85 115 986 2 10

Sample ID	<b>LCS-R40549</b>	SampType:	<b>LCS</b>	TestCode:	<b>TDS_2540C</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40549</b>											
Client ID:	<b>LCSW</b>	Batch ID:	<b>R40549</b>	TestNo:	<b>SM2540C</b>			Analysis Date:	<b>1/8/2015</b>	SeqNo:	<b>974688</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual

Total Dissolved Solids (Residue, Filterable) 986 20 1,000 0 99 85 115

Sample ID	<b>14121090-011DDUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>TDS_2540C</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40549</b>											
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R40549</b>	TestNo:	<b>SM2540C</b>			Analysis Date:	<b>1/8/2015</b>	SeqNo:	<b>974698</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual

Total Dissolved Solids (Residue, Filterable) 11,200 500 10,720 4 10 H

**Qualifiers:**

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40549

Sample ID	14121090-011DDUP	SampType:	DUP	TestCode:	TDS_2540C	Units:	mg/L	Prep Date:		RunNo:	40549			
Client ID:	ZZZZZZ	Batch ID:	R40549	TestNo:	SM2540C			Analysis Date:	1/8/2015	SeqNo:	974698			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID	14121055-005CDUP	SampType:	DUP	TestCode:	TDS_2540C	Units:	mg/L	Prep Date:		RunNo:	40549			
Client ID:	ZZZZZZ	Batch ID:	R40549	TestNo:	SM2540C			Analysis Date:	1/8/2015	SeqNo:	974704			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filterable)		11,200		500							11,150	0	10	H

**Qualifiers:**

- |   |  |  |
|---|--|--|
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| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40614

Sample ID	<b>MBLK</b>	SampType:	<b>MBLK</b>	TestCode:	<b>9056_W</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40614</b>			
Client ID:	<b>PBW</b>	Batch ID:	<b>R40614</b>	TestNo:	<b>SW9056A</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974461</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide		< 0.10		0.10										
Chloride		< 0.25		0.25										
Sulfate		< 0.25		0.25										

Sample ID	<b>LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>9056_W</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40614</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>R40614</b>	TestNo:	<b>SW9056A</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974462</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide		3.83		0.10	4.00	0		95.8	80	120				
Chloride		9.65		0.25	10.00	0		96.5	80	120				
Sulfate		9.95		0.25	10.00	0		99.5	80	120				

Sample ID	<b>LCSD</b>	SampType:	<b>LCSD</b>	TestCode:	<b>9056_W</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40614</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R40614</b>	TestNo:	<b>SW9056A</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974463</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide		3.83		0.10	4.00	0		95.8	80	120	3.83	0.06	20	
Chloride		9.64		0.25	10.00	0		96.4	80	120	9.65	0.09	20	
Sulfate		9.91		0.25	10.00	0		99.1	80	120	9.95	0.39	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40614

Sample ID	<b>15010274-001BMS</b>	SampType: <b>MS</b>	TestCode: <b>9056_W</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>40614</b>					
Client ID:	<b>ZZZZZZ</b>	Batch ID: <b>R40614</b>	TestNo: <b>SW9056A</b>	Analysis Date: <b>1/9/2015</b>	SeqNo: <b>974465</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	184	10.0	200.0	0	92.2	80	120				
Chloride	1,390	25.0	500.0	909.2	96.6	80	120				
Sulfate	505	25.0	500.0	44.22	92.1	80	120				

Sample ID	<b>15010274-001BMSD</b>	SampType: <b>MSD</b>	TestCode: <b>9056_W</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>40614</b>					
Client ID:	<b>ZZZZZZ</b>	Batch ID: <b>R40614</b>	TestNo: <b>SW9056A</b>	Analysis Date: <b>1/9/2015</b>	SeqNo: <b>974466</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromide	183	10.0	200.0	0	91.7	80	120	184.3	0.50	20	
Chloride	1,380	25.0	500.0	909.2	95.1	80	120	1,392	0.53	20	
Sulfate	499	25.0	500.0	44.22	90.9	80	120	504.8	1.18	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40626

Sample ID	<b>BTEX LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>8021_BTEX_</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40626</b>	
Client ID:	<b>LCSW</b>	Batch ID:	<b>R40626</b>	TestNo:	<b>SW8021B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974797</b>	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		0.0466	0.00500	0.05000	0	93.2	72	120				
Ethylbenzene		0.0470	0.00500	0.05000	0	94.0	76	129				
Toluene		0.0467	0.0100	0.05000	0	93.4	78	120				
Xylenes, Total		0.141	0.0500	0.1500	0	94.3	75	125				
Surr: alpha, alpha, alpha-Trifluorotoluene		0.0469		0.05000		93.8	70	130				

Sample ID	<b>BTEX LCSD</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8021_BTEX_</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40626</b>	
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R40626</b>	TestNo:	<b>SW8021B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974798</b>	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		0.0468	0.00500	0.05000	0	93.6	72	120	0.04660	0.428	20	
Ethylbenzene		0.0474	0.00500	0.05000	0	94.8	76	129	0.04700	0.847	20	
Toluene		0.0471	0.0100	0.05000	0	94.2	78	120	0.04670	0.853	20	
Xylenes, Total		0.142	0.0500	0.1500	0	95.0	75	125	0.1414	0.775	20	
Surr: alpha, alpha, alpha-Trifluorotoluene		0.0454		0.05000		90.8	70	130		0	20	

Sample ID	<b>MB ACID</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8021_BTEX_</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40626</b>	
Client ID:	<b>PBW</b>	Batch ID:	<b>R40626</b>	TestNo:	<b>SW8021B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974799</b>	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		< 0.00500	0.00500									
Ethylbenzene		< 0.00500	0.00500									

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40626

Sample ID	<b>MB ACID</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8021_BTEX_</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40626</b>		
Client ID:	<b>PBW</b>	Batch ID:	<b>R40626</b>	TestNo:	<b>SW8021B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974799</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene		< 0.0100		0.0100									
Xylenes, Total		< 0.0500		0.0500									
Surr: alpha, alpha, alpha-Trifluorotoluene		0.0437			0.05000		87.4	70	130				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40627

Sample ID	<b>GAS LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>8015_G_W</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40627</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>R40627</b>	TestNo:	<b>SW8015B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974800</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline Range)		12.9		0.15	12.50	0		103	80	130				

Sample ID	<b>GAS LCSD</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_G_W</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40627</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R40627</b>	TestNo:	<b>SW8015B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974801</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline Range)		12.9		0.15	12.50	0		104	80	130	12.89	0.34	20	

Sample ID	<b>MB ACID</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_G_W</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40627</b>			
Client ID:	<b>PBW</b>	Batch ID:	<b>R40627</b>	TestNo:	<b>SW8015B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974802</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline Range)		< 0.15		0.15										
Surr: alpha, alpha-Trifluorotoluene		0.05			0.05			97.2	70	130				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



Element Materials Technology Lafayette  
 2417 W. Pinhook Road  
 Lafayette, LA 70508-3344  
 TEL: (337) 235-0483 FAX: (337) 233-6540  
 Website: [www.element.com](http://www.element.com)

# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40635

Sample ID	<b>MB-R40635</b>	SampType:	<b>MBLK</b>	TestCode:	<b>ALK</b>	Units:	<b>mgCaCO3/L</b>	Prep Date:		RunNo:	<b>40635</b>		
Client ID:	<b>PBW</b>	Batch ID:	<b>R40635</b>	TestNo:	<b>SM2320 B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975316</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Bicarbonate (As CaCO3) < 10  
 Alkalinity, Carbonate (As CaCO3) < 10

Sample ID	<b>15010274-001CDUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>ALK</b>	Units:	<b>mgCaCO3/L</b>	Prep Date:		RunNo:	<b>40635</b>		
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R40635</b>	TestNo:	<b>SM2320 B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975319</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Bicarbonate (As CaCO3) 708 10 675 5 20  
 Alkalinity, Carbonate (As CaCO3) < 10 10 0 0 20

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40791

Sample ID	<b>MBLK</b>	SampType:	<b>MBLK</b>	TestCode:	<b>9056_W</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40791</b>			
Client ID:	<b>PBW</b>	Batch ID:	<b>R40791</b>	TestNo:	<b>SW9056A</b>			Analysis Date:	<b>1/16/2015</b>	SeqNo:	<b>979408</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate < 0.25 0.25

Sample ID	<b>LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>9056_W</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40791</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>R40791</b>	TestNo:	<b>SW9056A</b>			Analysis Date:	<b>1/16/2015</b>	SeqNo:	<b>979408</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate 10.1 0.25 10.00 0 101 80 120

Sample ID	<b>LCSD</b>	SampType:	<b>LCSD</b>	TestCode:	<b>9056_W</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40791</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R40791</b>	TestNo:	<b>SW9056A</b>			Analysis Date:	<b>1/16/2015</b>	SeqNo:	<b>979410</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate 10.0 0.25 10.00 0 100 80 120 10.14 0.99 20

Sample ID	<b>15010291-001CMS</b>	SampType:	<b>MS</b>	TestCode:	<b>9056_W</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40791</b>			
Client ID:	<b>WL-6</b>	Batch ID:	<b>R40791</b>	TestNo:	<b>SW9056A</b>			Analysis Date:	<b>1/16/2015</b>	SeqNo:	<b>979411</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate 303 12.5 250.0 38.24 106 80 120

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 15010291  
 19-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40791

Sample ID	<b>15010291-001CMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>9056_W</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>40791</b>		
Client ID:	<b>WL-6</b>	Batch ID:	<b>R40791</b>	TestNo:	<b>SW9056A</b>			Analysis Date:	<b>1/16/2015</b>	SeqNo:	<b>979412</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfate		281		12.5	250.0	38.24	97.0	80	120	303.1	7.65	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |








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# Sample Log-In Check List

Client Name: **ICON\_ENV** Work Order Number: **15010291** RcptNo: **1**

Logged by:	<b>Heather Delay</b>	<b>1/8/2015 9:05:00 AM</b>	
Completed By:	<b>Heather Delay</b>	<b>1/8/2015 9:20:11 AM</b>	
Reviewed By:	<b>Caitlin Duplantis</b>	<b>1/12/2015 9:13:52 AM</b>	

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 Custody seals intact on shipping container/cooler? Yes  No  Not Present   
 No. Seal Date: Signed By:  
 5. Was an attempt made to cool the samples? Yes  No  NA   
 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
 7. Sample(s) in proper container(s)? Yes  No   
 8. Sufficient sample volume for indicated test(s)? Yes  No   
 9. Are samples (except VOA and ONG) properly preserved? Yes  No   
 10. Was preservative added to bottles? Yes  No  NA   
 11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  No VOA Vials   
 12. Were any sample containers received broken? Yes  No   
 13. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)  
 14. Are matrices correctly identified on Chain of Custody? Yes  No   
 15. Is it clear what analyses were requested? Yes  No   
 16. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text" value="Greg Miller"/>	Date	<input type="text" value="1/8/2015"/>
By Whom:	<input type="text" value="Caitlin Duplantis"/>	Via:	<input checked="" type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text" value="Metals list."/>		
Client Instructions:	<input type="text" value="See attached email."/>		

18. Additional remarks:  
 Improper error correction(s) made by client

### Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			



# Chain of Custody

Laboratory Number: 15010091

**Client Information:**  
 Company Name: ICON Environmental  
 Contact Name: Greg Miller  
 Address: 2014 Commercial Dr  
 City, State Zip: Port Allen, LA 70767  
 Phone Number: 225-444-8450  
 Fax Number:  
 E-mail Address:

**Billing Information:**  
 PO Number:  
 Quote Number: SIME  
 Required QC Level:  
 Bill Monthly:  Yes  No  
 Shipping Method: UPS / FedEx / NOW  
 DHL / Element / Hand / Mail

**Project Name/Number:** VPS3 East White Lake  
**Sampler's Signature:** [Signature]  
**Shipping Method:** UPS / FedEx / NOW  
**DHL / Element / Hand / Mail**

**Matrix Code:**  
 DW = Drinking Water  
 WW = Waste Water  
 GW = Ground Water  
 AG = Aqueous  
 OT = Other  
 SL = Sludge  
 O = Oil  
 F = Food  
 NG = Natural Gas  
 PW = Produced Water  
 CF = Completion Fluid

Sample ID/Description	Which Regulations Apply: <input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USQAFDA <input type="checkbox"/> RECAP/RI/SG	Turn Time <input type="checkbox"/> Standard <input type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input checked="" type="checkbox"/> 2 Day <input type="checkbox"/> Other	Collection Information		Rush turn times will incur a surcharge and must be pre-approved by (lab.)	Container Type Plastic Vial	Pres. HCl, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> NaOH, Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	Requested Tests	Comments
			Date	Time					
WLG			1/7/15	1245	G	P 6 V	HCl, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub>	X Total Metals X Cl/TDS X TPH-D/O	* 2 Day Turn Time
DUP			-	-	G	P 2 V	HNO <sub>3</sub>	X	
TriBlanks			-	-	Aa	V 2 V	HCl	X	

Relinquished by	Date/Time	Received by	Date/Time	Field Notes
[Signature]	1/8/15 9:05 AM	[Signature]	1/8/15 9:05	
				Received at lab on ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 1.0

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

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 Delaware, IN 47334-0569 USA  
 P 765-378-4103  
 F 765-378-4109

629 Washington St, Suite 300  
 Columbus, IN 47201-6231 USA  
 P 812-375-0531  
 F 812-375-0731

2121 East Washington Boulevard  
 Fort Wayne, IN 46803-1328 USA  
 P 260-471-7000  
 F 260-471-7777

909 Executive Dr  
 Warsaw, IN 46580-2368 USA  
 P 574-267-3305  
 F 574-269-6566

3371 Cleveland Road, Suite 100A  
 South Bend, IN 46626-0780 USA  
 P 574-277-0707  
 F 574-273-6699

2417 W. Pinhook Rd  
 Lafayette, LA 70508-3344 USA  
 P 337-235-0483  
 F 337-233-6540



**RE: Metals List: 15010291, VPSB East White Lake 9077-041-0800**

**Greg Miller** to: CustomerService.Lafayette, jsills  
Cc: Caitlin.Duplantis

01/08/2015 10:26 AM

From: "Greg Miller" <gregm@iconenv.com>  
To: <CustomerService.Lafayette@Element.com>, <jsills@iconenv.com>,  
Cc: <Caitlin.Duplantis@element.com>

---

History: This message has been replied to.

As, Ba, Cd, Cr, Fe, Pb, Mn, Hg, Se, Sr, Zn, and please add Br to anions.  
(we need all cations and anions). Thanks.

-----Original Message-----

From: [CustomerService.Lafayette@Element.com](mailto:CustomerService.Lafayette@Element.com)  
[mailto:[CustomerService.Lafayette@Element.com](mailto:CustomerService.Lafayette@Element.com)]  
Sent: Thursday, January 08, 2015 10:01 AM  
To: [gregm@iconenv.com](mailto:gregm@iconenv.com); [jsills@iconenv.com](mailto:jsills@iconenv.com)  
Cc: [Caitlin.Duplantis@element.com](mailto:Caitlin.Duplantis@element.com)  
Subject: Metals List: 15010291, VPSB East White Lake 9077-041-0800

Can you please provide a metals list for the samples listed on the attached  
COC?

Please feel free to contact me by email at [Caitlin.Duplantis@element.com](mailto:Caitlin.Duplantis@element.com)  
with any questions.

Sincerely,

Caitlin Duplantis  
Project Manager  
[Caitlin.Duplantis@element.com](mailto:Caitlin.Duplantis@element.com)  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344  
Element Materials Technology Lafayette  
TEL: (337) 235-0483 ()  
FAX: (337) 233-6540  
[www.element.com](http://www.element.com)

-----  
No virus found in this message.

Checked by AVG - [www.avg.com](http://www.avg.com)

Version: 2014.0.4794 / Virus Database: 4257/8886 - Release Date: 01/07/15



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 Website: [www.element.com](http://www.element.com)

# Analytical Report

(consolidated)

WO#: 15010256

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 8:45:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-001 **Matrix:** SOIL  
**Client Sample ID** WL-3 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	32.9	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	2,250	254		mg/Kg-dry	50	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	14.5	0.10	*	mmhos/cm	1	1/12/2015 4:10:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	14.8	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	5.61	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	6.23	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	36.3	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	31.6	0.100	*		1	1/12/2015
Soluble Calcium	16.2	1.00		meq/L	1	1/12/2015
Soluble Magnesium	9.48	1.00		meq/L	1	1/12/2015
Soluble Sodium	113	1.00		meq/L	1	1/12/2015

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 8:45:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-001 **Matrix:** SOIL  
**Client Sample ID** WL-3 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	775	100		mg/Kg	10	1/9/2015 8:06:00 PM
TPH (Oil Range)	656	100		mg/Kg	10	1/9/2015 8:06:00 PM
Surr: 4-Terphenyl-d14	64.0	33 - 152		%REC	10	1/9/2015 8:06:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	4.29	0.49		mg/Kg-dry	5	1/12/2015 4:54:26 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.11	0.99		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Barium	351	0.99		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Cadmium	2.70	0.50		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Chromium	20.6	0.99		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Lead	99.9	0.99		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Zinc	1,370	0.99	*	mg/Kg-dry	1	1/10/2015 1:31:55 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	697	48		mg/Kg-dry	1	1/10/2015 2:53:51 AM

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 9:00:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-002 **Matrix:** SOIL  
**Client Sample ID** WL-3 (4-6')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	76.1	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	10,300	937		mg/Kg-dry	100	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	32.5	0.10	*	mmhos/cm	1	1/12/2015 4:11:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	15.4	0.1	*	%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	3.27	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	6.22	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	65.9	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	65.6	0.100	*		1	1/12/2015
Soluble Calcium	19.2	1.00		meq/L	1	1/12/2015
Soluble Magnesium	21.5	1.00		meq/L	1	1/12/2015
Soluble Sodium	296	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

PRELIMINARY



Element Materials Technology Lafayette  
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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 9:00:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-002 **Matrix:** SOIL  
**Client Sample ID** WL-3 (4-6')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	5,540	1,000		mg/Kg	100	1/13/2015 4:56:00 PM
TPH (Oil Range)	2,790	1,000		mg/Kg	100	1/13/2015 4:56:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/13/2015 4:56:00 PM
<b>NOTES:</b> SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	1.58	0.10		mg/Kg-dry	1	1/12/2015 2:44:38 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.00	0.99		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Barium	161	0.99		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Chromium	10.2	0.99		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Lead	15.4	0.99		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Zinc	118	0.99		mg/Kg-dry	1	1/10/2015 1:42:59 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	342	46		mg/Kg-dry	1	1/10/2015 3:04:08 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 9:10:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-003 **Matrix:** SOIL  
**Client Sample ID** WL-3 (10-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	51.0	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	5,230	670		mg/Kg-dry	50	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	12.4	0.10	*	mmhos/cm	1	1/12/2015 4:11:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	46.1	0.1	*	%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	< 0.05	0.05		% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	8.18	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	48.9	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	59.1	0.100	*		1	1/12/2015
Soluble Calcium	3.79	1.00		meq/L	1	1/12/2015
Soluble Magnesium	3.81	1.00		meq/L	1	1/12/2015
Soluble Sodium	115	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSD limit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

PRELIMINARY





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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 9:10:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-003 **Matrix:** SOIL  
**Client Sample ID** WL-3 (10-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 9:27:00 PM
TPH (Oil Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 9:27:00 PM
Surr: 4-Terphenyl-d14	94.3	33 - 152		%REC	10	1/9/2015 9:27:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 2:47:22 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.50	0.99		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Barium	91.7	0.99		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Chromium	13.5	0.99		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Lead	13.8	0.99		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Zinc	59.9	0.99		mg/Kg-dry	1	1/10/2015 1:46:55 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	166	47		mg/Kg-dry	1	1/10/2015 3:07:33 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- C Value is below Minimum Compound Limit.
- H Holding times for preparation or analysis exceeded
- N Tentatively identified compounds
- O RSD is greater than RSDlimit
- PL Permit Limit
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- M Matrix Interference
- ND Not Detected at the Reporting Limit
- P Second column confirmation exceeds
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:15:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-004 **Matrix:** SOIL  
**Client Sample ID** WL-4 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	81.9	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	1,900	214		mg/Kg-dry	25	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	7.23	0.10	*	mmhos/cm	1	1/12/2015 4:11:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	7.5	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	1.22	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	4.49	1.68	C	S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	54.2	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	22.7	0.100	*		1	1/12/2015
Soluble Calcium	4.49	1.00		meq/L	1	1/12/2015
Soluble Magnesium	6.18	1.00		meq/L	1	1/12/2015
Soluble Sodium	52.4	1.00		meq/L	1	1/12/2015

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:15:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-004 **Matrix:** SOIL  
**Client Sample ID** WL-4 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	937	100		mg/Kg	10	1/9/2015 9:43:00 PM
TPH (Oil Range)	774	100		mg/Kg	10	1/9/2015 9:43:00 PM
Surr: 4-Terphenyl-d14	52.8	33 - 152		%REC	10	1/9/2015 9:43:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 2:49:45 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.15	1.00		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Barium	492	1.00		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Chromium	12.4	1.00		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Lead	20.3	1.00		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Zinc	51.0	1.00		mg/Kg-dry	1	1/10/2015 1:50:34 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	632	48		mg/Kg-dry	1	1/10/2015 3:10:58 AM

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:25:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-005 **Matrix:** SOIL  
**Client Sample ID** WL-4 (2-4')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	74.8	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	3,230	396		mg/Kg-dry	50	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	12.7	0.10	*	mmhos/cm	1	1/12/2015 4:11:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	15.2	0.1	*	%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	3.81	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
pH Measurement	6.07	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
Percent Moisture	50.3	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	42.5	0.100	*		1	1/12/2015
Soluble Calcium	7.44	1.00		meq/L	1	1/12/2015
Soluble Magnesium	6.83	1.00		meq/L	1	1/12/2015
Soluble Sodium	114	1.00		meq/L	1	1/12/2015

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSD limit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:25:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-005 **Matrix:** SOIL  
**Client Sample ID** WL-4 (2-4')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	6,490	1,000		mg/Kg	100	1/12/2015 9:55:00 PM
TPH (Oil Range)	1,690	1,000		mg/Kg	100	1/12/2015 9:55:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/12/2015 9:55:00 PM
<b>NOTES:</b> SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.13	0.10		mg/Kg-dry	1	1/12/2015 2:52:28 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.12	0.99		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Barium	1,070	0.99		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Chromium	12.2	0.99		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Lead	18.0	0.99		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Selenium	< 1.98	1.98		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Zinc	127	0.99		mg/Kg-dry	1	1/10/2015 1:54:01 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	1,620	47		mg/Kg-dry	1	1/10/2015 3:14:24 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

PRELIMINARY



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 TEL: (337) 235-0483 FAX: (337) 233-6540  
 Website: [www.element.com](http://www.element.com)

# Analytical Report

(consolidated)

WO#: 15010256

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:40:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-006 **Matrix:** SOIL  
**Client Sample ID** WL-4 (4-11')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	31.8	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	13,900	2,790		mg/Kg-dry	500	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	61.0	0.10	*	mmhos/cm	1	1/12/2015 4:12:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	6.0	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	5.02	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
pH Measurement	6.75	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
Percent Moisture	37.4	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	98.4	0.100	*		1	1/12/2015
Soluble Calcium	49.5	1.00		meq/L	1	1/12/2015
Soluble Magnesium	32.1	1.00		meq/L	1	1/12/2015
Soluble Sodium	629	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:40:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-006 **Matrix:** SOIL  
**Client Sample ID** WL-4 (4-11')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	14,300	1,000		mg/Kg	100	1/12/2015 10:11:00 PM
TPH (Oil Range)	4,310	1,000		mg/Kg	100	1/12/2015 10:11:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/12/2015 10:11:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 2:55:10 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	2.18	0.99		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Barium	436	0.99		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Chromium	11.0	0.99		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Lead	10.8	0.99		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Selenium	< 1.98	1.98		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Zinc	112	0.99		mg/Kg-dry	1	1/10/2015 1:57:26 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	726	46		mg/Kg-dry	1	1/10/2015 3:17:50 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:50:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-007 **Matrix:** SOIL  
**Client Sample ID** WL-4 (11-12.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	56.4	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	56,500	6,920		mg/Kg-dry	1000	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	202	1.00	*	mmhos/cm	10	1/12/2015 4:18:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	< 0.1	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	2.04	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
pH Measurement	6.55	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
Percent Moisture	48.7	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	168	0.100	*		1	1/12/2015
Soluble Calcium	141	1.00		meq/L	1	1/12/2015
Soluble Magnesium	113	1.00		meq/L	1	1/12/2015
Soluble Sodium	1,890	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

PRELIMINARY





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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:50:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-007 **Matrix:** SOIL  
**Client Sample ID** WL-4 (11-12.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	3,940	1,000		mg/Kg	100	1/12/2015 10:28:00 PM
TPH (Oil Range)	1,130	1,000		mg/Kg	100	1/12/2015 10:28:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/12/2015 10:28:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:11:53 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.04	0.99		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Barium	246	0.99		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Chromium	10.4	0.99		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Lead	15.4	0.99		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Zinc	140	0.99		mg/Kg-dry	1	1/10/2015 2:00:51 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	426	48		mg/Kg-dry	1	1/10/2015 3:21:14 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 12:10:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-008 **Matrix:** SOIL  
**Client Sample ID** WL-5 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	78.8	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	2,040	384		mg/Kg-dry	50	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	9.09	0.10	*	mmhos/cm	1	1/12/2015 4:12:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	7.3	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	3.70	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	5.01	1.68	C	S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	48.4	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	23.7	0.100	*		1	1/12/2015
Soluble Calcium	6.36	1.00		meq/L	1	1/12/2015
Soluble Magnesium	9.92	1.00		meq/L	1	1/12/2015
Soluble Sodium	67.6	1.00		meq/L	1	1/12/2015

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 12:10:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-008 **Matrix:** SOIL  
**Client Sample ID** WL-5 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	7,140	1,000		mg/Kg	100	1/12/2015 10:44:00 PM
TPH (Oil Range)	5,990	1,000		mg/Kg	100	1/12/2015 10:44:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/12/2015 10:44:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:14:37 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.88	0.99		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Barium	1,070	0.99		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Cadmium	0.57	0.50		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Chromium	13.3	0.99		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Lead	20.9	0.99		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Zinc	171	0.99		mg/Kg-dry	1	1/10/2015 2:11:32 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	1,680	49		mg/Kg-dry	1	1/10/2015 3:24:38 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 12:30:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-009 **Matrix:** SOIL  
**Client Sample ID** WL-5 (2-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	12.8	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	2,200	387		mg/Kg-dry	100	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	17.2	0.10	*	mmhos/cm	1	1/12/2015 4:13:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	14.7	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	1.99	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	6.09	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	31.1	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	36.3	0.100	*		1	1/12/2015
Soluble Calcium	14.1	1.00		meq/L	1	1/12/2015
Soluble Magnesium	14.5	1.00		meq/L	1	1/12/2015
Soluble Sodium	137	1.00		meq/L	1	1/12/2015

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 12:30:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-009 **Matrix:** SOIL  
**Client Sample ID** WL-5 (2-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	10,000	1,000		mg/Kg	100	1/12/2015 11:00:00 PM
TPH (Oil Range)	3,400	1,000		mg/Kg	100	1/12/2015 11:00:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/12/2015 11:00:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:17:20 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	1.31	0.99		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Barium	328	0.99		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Chromium	11.3	0.99		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Lead	14.9	0.99		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Zinc	218	0.99		mg/Kg-dry	1	1/10/2015 2:15:19 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	656	46		mg/Kg-dry	1	1/10/2015 3:35:20 AM

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

PRELIMINARY



Element Materials Technology Lafayette  
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 Website: [www.element.com](http://www.element.com)

# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:00:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-010 **Matrix:** SOIL  
**Client Sample ID** WL-6 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	70.3	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	1,200	161		mg/Kg-dry	20	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	4.99	0.10	*	mmhos/cm	1	1/12/2015 4:13:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	11.2	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	0.53	0.05		% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	5.88	1.68	C	S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	49.2	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	21.8	0.100	*		1	1/12/2015
Soluble Calcium	2.48	1.00		meq/L	1	1/12/2015
Soluble Magnesium	4.14	1.00		meq/L	1	1/12/2015
Soluble Sodium	39.7	1.00		meq/L	1	1/12/2015

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:00:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-010 **Matrix:** SOIL  
**Client Sample ID** WL-6 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	545	100		mg/Kg	10	1/12/2015 11:17:00 PM
TPH (Oil Range)	430	100		mg/Kg	10	1/12/2015 11:17:00 PM
Surr: 4-Terphenyl-d14	56.4	33 - 152		%REC	10	1/12/2015 11:17:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:20:05 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.29	0.99		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Barium	641	0.99		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Chromium	11.5	0.99		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Lead	15.3	0.99		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Selenium	< 1.98	1.98		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Zinc	54.4	0.99		mg/Kg-dry	1	1/10/2015 2:18:50 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	844	47		mg/Kg-dry	1	1/10/2015 3:38:43 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- C Value is below Minimum Compound Limit.
- H Holding times for preparation or analysis exceeded
- N Tentatively identified compounds
- O RSD is greater than RSDlimit
- PL Permit Limit
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- M Matrix Interference
- ND Not Detected at the Reporting Limit
- P Second column confirmation exceeds
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:15:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-011 **Matrix:** SOIL  
**Client Sample ID** WL-6 (4-6')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	97.2	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	40,700	5,460		mg/Kg-dry	500	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	82.3	0.10	*	mmhos/cm	1	1/12/2015 4:13:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	59.9	0.1	*	%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.44	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	5.72	1.68	C	S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	71.1	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	85.6	0.100	*		1	1/12/2015
Soluble Calcium	62.3	1.00		meq/L	1	1/12/2015
Soluble Magnesium	105	1.00		meq/L	1	1/12/2015
Soluble Sodium	782	1.00		meq/L	1	1/12/2015

**Qualifiers:**

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C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSD limit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:15:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-011 **Matrix:** SOIL  
**Client Sample ID** WL-6 (4-6')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	106	100		mg/Kg	10	1/9/2015 11:36:00 PM
TPH (Oil Range)	116	100		mg/Kg	10	1/9/2015 11:36:00 PM
Surr: 4-Terphenyl-d14	51.1	33 - 152		%REC	10	1/9/2015 11:36:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:22:49 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.07	0.99		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Barium	226	0.99		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Chromium	7.93	0.99		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Lead	7.64	0.99		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Zinc	22.4	0.99		mg/Kg-dry	1	1/10/2015 2:22:14 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	346	49		mg/Kg-dry	1	1/10/2015 3:42:08 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- C Value is below Minimum Compound Limit.
- H Holding times for preparation or analysis exceeded
- N Tentatively identified compounds
- O RSD is greater than RSDlimit
- PL Permit Limit
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- M Matrix Interference
- ND Not Detected at the Reporting Limit
- P Second column confirmation exceeds
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:25:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-012 **Matrix:** SOIL  
**Client Sample ID** WL-6 (8-10')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	58.1	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	34,300	4,400		mg/Kg-dry	500	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	85.8	0.10	*	mmhos/cm	1	1/12/2015 4:13:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	40.0	0.1	*	%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.17	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
pH Measurement	6.08	1.68		S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
Percent Moisture	55.1	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	81.2	0.100	*		1	1/12/2015
Soluble Calcium	71.9	1.00		meq/L	1	1/12/2015
Soluble Magnesium	133	1.00		meq/L	1	1/12/2015
Soluble Sodium	821	1.00		meq/L	1	1/12/2015

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:25:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-012 **Matrix:** SOIL  
**Client Sample ID** WL-6 (8-10')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 11:53:00 PM
TPH (Oil Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 11:53:00 PM
Surr: 4-Terphenyl-d14	81.8	33 - 152		%REC	10	1/9/2015 11:53:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:25:13 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.80	1.00		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Barium	115	1.00		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Chromium	11.5	1.00		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Lead	11.1	1.00		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Zinc	52.8	1.00		mg/Kg-dry	1	1/10/2015 2:26:03 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	165	48		mg/Kg-dry	1	1/10/2015 3:45:33 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- C Value is below Minimum Compound Limit.
- H Holding times for preparation or analysis exceeded
- N Tentatively identified compounds
- O RSD is greater than RSDlimit
- PL Permit Limit
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- M Matrix Interference
- ND Not Detected at the Reporting Limit
- P Second column confirmation exceeds
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:35:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-013 **Matrix:** SOIL  
**Client Sample ID** WL-6 (10-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	86.6	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	63,200	9,370		mg/Kg-dry	1000	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	162	1.00	*	mmhos/cm	10	1/12/2015 4:20:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	40.3	0.1	*	%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.25	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
pH Measurement	6.23	1.68		S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
Percent Moisture	75.0	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	105	0.100	*		1	1/12/2015
Soluble Calcium	133	1.00		meq/L	1	1/12/2015
Soluble Magnesium	267	1.00		meq/L	1	1/12/2015
Soluble Sodium	1,490	1.00		meq/L	1	1/12/2015

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value is below Minimum Compound Limit.	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	M	Matrix Interference
N	Tentatively identified compounds	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSD limit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

PRELIMINARY



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported:

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:35:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-013 **Matrix:** SOIL  
**Client Sample ID** WL-6 (10-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	50.3	50.0		mg/Kg	10	1/10/2015 3:38:00 AM
TPH (Oil Range)	< 50.0	50.0		mg/Kg	10	1/10/2015 3:38:00 AM
Surr: 4-Terphenyl-d14	98.6	33 - 152		%REC	10	1/10/2015 3:38:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:35:33 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.06	1.00		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Barium	223	1.00		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Chromium	8.77	1.00		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Lead	8.09	1.00		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Zinc	24.9	1.00		mg/Kg-dry	1	1/10/2015 2:29:35 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	269	47		mg/Kg-dry	1	1/10/2015 3:48:58 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- C Value is below Minimum Compound Limit.
- H Holding times for preparation or analysis exceeded
- N Tentatively identified compounds
- O RSD is greater than RSDlimit
- PL Permit Limit
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- M Matrix Interference
- ND Not Detected at the Reporting Limit
- P Second column confirmation exceeds
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

PRELIMINARY



# Chain of Custody

## Laboratory Number

15010256

Client Information: **ICON** Billing Information: **SARISE** PG Number: **9077-041-0800** Project Name/Number: **V.P.S.B. East White Lake** Page 1 of 2

Contact Name: **Greg Miller** Address: **Part Allen LA 20767** Ext: **DP53448490** Matrix Code: **DPR**

City, State Zip: **Part Allen LA 20767** Phone Number: **DP53448490** Fax Number: **DP53448490** E-mail Address: **DP53448490**

Which Regulations Apply:  RCRA  PWTW  NPDES  USDA/FDA  RECAP/IRIS  Drinking Water  Distribution  Special  Stable  Other

Turn Time:  Standard  RUSH  1 Day  2 Day  Other

Shipping Method: **UPS / FedEx / Airborne**

DHL / Element /  Air / Mail

Sample ID/Description	Collection Information		Quantity	Container Type P=Plastic, V=Vial, G=Glass	Pres. HCl, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , NaOH, Na <sub>2</sub> SiO <sub>3</sub>	Requested Tests	Comments
	Date	Time					
WL-3 (0-2')	1-6-15	845	1	G	None	TPH-DTO	All dry weight
WL-3 (4-6')		900					
WL-3 (10-13')		910					
WL-4 (0-2')		1015					
WL-4 (2-4')		1025					
WL-4 (4-11')		1040					
WL-4 (11-12.5')		1050					
WL-5 (0-2')		1210					
WL-5 (2-13')		1230					

Relinquished by	Date/Time	Received by	Date/Time	Field Notes
<i>[Signature]</i>	4/7/15 1400	<i>[Signature]</i>	4/7/15 1400	

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

8301 Innovation Drive, Suite 115  
 Daleville, IN 47201-8231 USA  
 P 765-378-4100 F 765-378-4108

629 Washington St, Suite 300  
 Columbus, IN 47201-8231 USA  
 P 812-375-0751 F 812-375-0751

2121 East Washington Boulevard  
 Fort Wayne, IN 46803-1328 USA  
 P 260-471-7000 F 260-471-7777

568 South Zimmer Road  
 Warsaw, IN 46580-2388 USA  
 P 317-247-3305 F 317-247-3305

3371 Cleveland Road, Suite 100A  
 Lafayette, LA 70508-2344 USA  
 P 337-235-0483 F 337-235-6546

2417 W. Pishock Rd  
 Lafayette, LA 70508-2344 USA  
 P 337-235-0483 F 337-235-6546



# Chain of Custody

Laboratory Number: 15010256

Client Information: **ICON** Billing Information: **SAME** PO Number: **V.P.S.B. East 14th Lake** Project Name/Number: **9077-041-0800** Page 2 of 2

Contact Name: **Greg Miller** Quote Number: **Matrix Code**

Address: **Port Allen, LA 70767** Required QC Level: **DER** Shipper's Signature: **DER**

City, State Zip: **Port Allen, LA 70767** Bill Monthly:  Yes  No

Phone Number: **225-344-8490** Ext: Shipping Method: **UPS / FedEx / Airborne**

Fax Number: E-mail: DHL / Element /  / Mail

Address: Which Regulations Apply:  RCRA  POTW  NPDES  USCA/FTA  RECAP/RI/SC

Turn Time:  Standard  RUSH  1 Day  2 Day  Other

Collection Information: Date: 1-6-15 1400 Matrix: G SO

Time: 1415

Time: 1425

Time: 1435

Sample ID/Description	Collection Information		Rush turn times will incur a surcharge and must be pre-approved by (lab.)	Container	Pres.	Requested Tests	Comments
	Date	Time					
WL-6 (0-2')	1-6-15	1400	G	G	NaOH, Na2SO4	TPH-D10	All Dry
WL-6 (4-6')		1415		G			Weight
WL-6 (8-10')		1425		G			
WL-6 (10-13')		1435		G			Rush A ASAP

Relinquished by	Date/Time	Received by	Date/Time	Field Notes
<i>Greg Miller</i>	1/7/15 1100	<i>Carlyle B</i>	1-7-15 1400	Received at lab on ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 0.3C
<i>Carlyle B</i>	1/7/15 1400	<i>Carlyle B</i>		

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

9301 Innovation Drive, Suite 115 Daleville, IN 47334-0569 USA P 785-378-4103 F 785-378-4109

629 Washington St, Suite 300 Columbus, IN 47201-8231 USA P 812-375-0531 F 812-375-0731

3121 East Washington Boulevard Fort Wayne, IN 46803-1328 USA P 260-471-7000 F 260-471-7777

560 South Zimmer Road Warsaw, IN 46590-2368 USA P 574-287-3005 F 574-289-6668

3371 Cleveland Road, Suite 100A South Bend, IN 46628-0768 USA P 574-277-0707 F 574-273-5899

2417 W. Pinhook Rd Lafayette, LA 70508-3344 USA P 337-335-0483 F 337-233-6540



Element Materials Technology Lafayette  
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Lafayette, LA 70508-3344  
TEL: (337) 235-0483 FAX: (337) 233-6540  
Website: [www.element.com](http://www.element.com)

January 15, 2015

Greg Miller  
ICON Environmental Services  
2049 Commercial Drive  
Port Allen, LA 70767  
TEL: (225) 344-8490  
FAX (225) 344-6654

RE: VPSB East White Lake 9077-041-0800

Order No.: 15010256

Dear Greg Miller:

Element Materials Technology Lafayette, LLC received 13 sample(s) on 1/7/2015 for the analyses presented in the following report.

In accordance with your instructions Element Lafayette conducted the analysis shown on the following pages on samples submitted by your company. The results related only to the items tested. Unless otherwise noted, all analyses were conducted using EPA approved methodologies and all test results meet all requirements of TNI. All relevant sampling information is on the attached Chain-of-Custody form.

All soil data, except for 29-B, are on a wet-weight basis unless otherwise indicated in the units field as –dry.

LELAP Certification No.: 01997. TCEQ Certification No.: T104704261-14-6. A scope of accredited parameters is available upon request. A "#" by the test method or analyte indicates this parameter is outside the scope of accreditation.

Estimated uncertainty is available upon request. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in blue ink that reads 'Annie Reedy'.

Annie Reedy  
Manager, Analytical Services  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344





Element Materials Technology Lafayette  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344  
TEL: (337) 235-0483 FAX: (337) 233-6540  
Website: [www.element.com](http://www.element.com)

## Case Narrative

WO#: 15010256  
Date: 1/15/2015

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**CLIENT:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

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Unless specified by the client, a duplicate or MS/MSD, wherever applicable, is randomly selected and analyzed from each analytical batch provided sample volume is sufficient. The sample chosen for duplicate or MS/MSD may or may not be a sample submitted in this workorder. A method blank and/or a lab control sample (LCS)/lab control sample duplicate (LCSD), wherever applicable, are processed as a quality control check for each analytical batch. When the matrix QC data is not available due to insufficient sample volume or when the results indicate possible matrix effect, the validity of the batch is determined by the method blank and LCS/LCSD.

The results of the laboratory internal quality control data are provided in the QC Summary Report section of the report for your review. Laboratory-related QC exceptions that may impact the validity of data are discussed in the case narrative. Sample-related QC exceptions are flagged either in the results page(s) or in the QC report page(s). End users should consider QC exceptions when evaluating sample data against data quality objectives.

Any other exceptions associated with this report will be footnoted in the results page(s) or the QC summary page(s).



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 8:45:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-001 **Matrix:** SOIL  
**Client Sample ID** WL-3 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	32.9	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	2,250	254		mg/Kg-dry	50	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	14.5	0.10	*	mmhos/cm	1	1/12/2015 4:10:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	14.8	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	5.61	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	6.23	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	36.3	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	31.6	0.100	*		1	1/12/2015
Soluble Calcium	16.2	1.00		meq/L	1	1/12/2015
Soluble Magnesium	9.48	1.00		meq/L	1	1/12/2015
Soluble Sodium	113	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported: **1/15/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 8:45:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-001 **Matrix:** SOIL  
**Client Sample ID** WL-3 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	775	100		mg/Kg	10	1/9/2015 8:06:00 PM
TPH (Oil Range)	656	100		mg/Kg	10	1/9/2015 8:06:00 PM
Surr: 4-Terphenyl-d14	64.0	33 - 152		%REC	10	1/9/2015 8:06:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	4.29	0.49		mg/Kg-dry	5	1/12/2015 4:54:26 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.11	0.99		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Barium	351	0.99		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Cadmium	2.70	0.50		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Chromium	20.6	0.99		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Lead	99.9	0.99		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:31:55 AM
Zinc	1,370	0.99	*	mg/Kg-dry	1	1/10/2015 1:31:55 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	697	48		mg/Kg-dry	1	1/10/2015 2:53:51 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 9:00:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-002 **Matrix:** SOIL  
**Client Sample ID** WL-3 (4-6')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	76.1	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	10,300	937		mg/Kg-dry	100	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	32.5	0.10	*	mmhos/cm	1	1/12/2015 4:11:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	15.4	0.1	*	%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	3.27	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	6.22	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	65.9	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	65.6	0.100	*		1	1/12/2015
Soluble Calcium	19.2	1.00		meq/L	1	1/12/2015
Soluble Magnesium	21.5	1.00		meq/L	1	1/12/2015
Soluble Sodium	296	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported: **1/15/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 9:00:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-002 **Matrix:** SOIL  
**Client Sample ID** WL-3 (4-6')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	5,540	1,000		mg/Kg	100	1/13/2015 4:56:00 PM
TPH (Oil Range)	2,790	1,000		mg/Kg	100	1/13/2015 4:56:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/13/2015 4:56:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	1.58	0.10		mg/Kg-dry	1	1/12/2015 2:44:38 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.00	0.99		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Barium	161	0.99		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Chromium	10.2	0.99		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Lead	15.4	0.99		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:42:59 AM
Zinc	118	0.99		mg/Kg-dry	1	1/10/2015 1:42:59 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	342	46		mg/Kg-dry	1	1/10/2015 3:04:08 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette  
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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 9:10:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-003 **Matrix:** SOIL  
**Client Sample ID** WL-3 (10-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	51.0	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	5,230	670		mg/Kg-dry	50	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	12.4	0.10	*	mmhos/cm	1	1/12/2015 4:11:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	46.1	0.1	*	%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	< 0.05	0.05		% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	8.18	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	48.9	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	59.1	0.100	*		1	1/12/2015
Soluble Calcium	3.79	1.00		meq/L	1	1/12/2015
Soluble Magnesium	3.81	1.00		meq/L	1	1/12/2015
Soluble Sodium	115	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported: **1/15/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 9:10:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-003 **Matrix:** SOIL  
**Client Sample ID** WL-3 (10-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 9:27:00 PM
TPH (Oil Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 9:27:00 PM
Surr: 4-Terphenyl-d14	94.3	33 - 152		%REC	10	1/9/2015 9:27:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 2:47:22 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.50	0.99		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Barium	91.7	0.99		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Chromium	13.5	0.99		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Lead	13.8	0.99		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:46:55 AM
Zinc	59.9	0.99		mg/Kg-dry	1	1/10/2015 1:46:55 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	166	47		mg/Kg-dry	1	1/10/2015 3:07:33 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:15:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-004 **Matrix:** SOIL  
**Client Sample ID** WL-4 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	81.9	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	1,900	214		mg/Kg-dry	25	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	7.23	0.10	*	mmhos/cm	1	1/12/2015 4:11:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	7.5	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	1.22	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	4.49	1.68	C	S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	54.2	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	22.7	0.100	*		1	1/12/2015
Soluble Calcium	4.49	1.00		meq/L	1	1/12/2015
Soluble Magnesium	6.18	1.00		meq/L	1	1/12/2015
Soluble Sodium	52.4	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported: **1/15/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:15:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-004 **Matrix:** SOIL  
**Client Sample ID** WL-4 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	937	100		mg/Kg	10	1/9/2015 9:43:00 PM
TPH (Oil Range)	774	100		mg/Kg	10	1/9/2015 9:43:00 PM
Surr: 4-Terphenyl-d14	52.8	33 - 152		%REC	10	1/9/2015 9:43:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 2:49:45 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.15	1.00		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Barium	492	1.00		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Chromium	12.4	1.00		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Lead	20.3	1.00		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:50:34 AM
Zinc	51.0	1.00		mg/Kg-dry	1	1/10/2015 1:50:34 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	632	48		mg/Kg-dry	1	1/10/2015 3:10:58 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:25:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-005 **Matrix:** SOIL  
**Client Sample ID** WL-4 (2-4')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	74.8	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	3,230	396		mg/Kg-dry	50	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	12.7	0.10	*	mmhos/cm	1	1/12/2015 4:11:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	15.2	0.1	*	%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	3.81	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	6.07	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	50.3	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	42.5	0.100	*		1	1/12/2015
Soluble Calcium	7.44	1.00		meq/L	1	1/12/2015
Soluble Magnesium	6.83	1.00		meq/L	1	1/12/2015
Soluble Sodium	114	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:25:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-005 **Matrix:** SOIL  
**Client Sample ID** WL-4 (2-4')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	6,490	1,000		mg/Kg	100	1/12/2015 9:55:00 PM
TPH (Oil Range)	1,690	1,000		mg/Kg	100	1/12/2015 9:55:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/12/2015 9:55:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.13	0.10		mg/Kg-dry	1	1/12/2015 2:52:28 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.12	0.99		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Barium	1,070	0.99		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Chromium	12.2	0.99		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Lead	18.0	0.99		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Selenium	< 1.98	1.98		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:54:01 AM
Zinc	127	0.99		mg/Kg-dry	1	1/10/2015 1:54:01 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	1,620	47		mg/Kg-dry	1	1/10/2015 3:14:24 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:40:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-006 **Matrix:** SOIL  
**Client Sample ID** WL-4 (4-11')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	31.8	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	13,900	2,790		mg/Kg-dry	500	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	61.0	0.10	*	mmhos/cm	1	1/12/2015 4:12:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	6.0	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	5.02	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	6.75	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	37.4	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	98.4	0.100	*		1	1/12/2015
Soluble Calcium	49.5	1.00		meq/L	1	1/12/2015
Soluble Magnesium	32.1	1.00		meq/L	1	1/12/2015
Soluble Sodium	629	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported: **1/15/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:40:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-006 **Matrix:** SOIL  
**Client Sample ID** WL-4 (4-11')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	14,300	1,000		mg/Kg	100	1/12/2015 10:11:00 PM
TPH (Oil Range)	4,310	1,000		mg/Kg	100	1/12/2015 10:11:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/12/2015 10:11:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 2:55:10 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	2.18	0.99		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Barium	436	0.99		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Chromium	11.0	0.99		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Lead	10.8	0.99		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Selenium	< 1.98	1.98		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 1:57:26 AM
Zinc	112	0.99		mg/Kg-dry	1	1/10/2015 1:57:26 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	726	46		mg/Kg-dry	1	1/10/2015 3:17:50 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:50:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-007 **Matrix:** SOIL  
**Client Sample ID** WL-4 (11-12.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	56.4	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	56,500	6,920		mg/Kg-dry	1000	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	202	1.00	*	mmhos/cm	10	1/12/2015 4:18:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	< 0.1	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	2.04	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	6.55	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	48.7	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	168	0.100	*		1	1/12/2015
Soluble Calcium	141	1.00		meq/L	1	1/12/2015
Soluble Magnesium	113	1.00		meq/L	1	1/12/2015
Soluble Sodium	1,890	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 10:50:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-007 **Matrix:** SOIL  
**Client Sample ID** WL-4 (11-12.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	3,940	1,000		mg/Kg	100	1/12/2015 10:28:00 PM
TPH (Oil Range)	1,130	1,000		mg/Kg	100	1/12/2015 10:28:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/12/2015 10:28:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:11:53 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.04	0.99		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Barium	246	0.99		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Chromium	10.4	0.99		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Lead	15.4	0.99		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:00:51 AM
Zinc	140	0.99		mg/Kg-dry	1	1/10/2015 2:00:51 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	426	48		mg/Kg-dry	1	1/10/2015 3:21:14 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 12:10:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-008 **Matrix:** SOIL  
**Client Sample ID** WL-5 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	78.8	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	2,040	384		mg/Kg-dry	50	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	9.09	0.10	*	mmhos/cm	1	1/12/2015 4:12:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	7.3	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	3.70	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	5.01	1.68	C	S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	48.4	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	23.7	0.100	*		1	1/12/2015
Soluble Calcium	6.36	1.00		meq/L	1	1/12/2015
Soluble Magnesium	9.92	1.00		meq/L	1	1/12/2015
Soluble Sodium	67.6	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 12:10:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-008 **Matrix:** SOIL  
**Client Sample ID** WL-5 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	7,140	1,000		mg/Kg	100	1/12/2015 10:44:00 PM
TPH (Oil Range)	5,990	1,000		mg/Kg	100	1/12/2015 10:44:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/12/2015 10:44:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:14:37 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.88	0.99		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Barium	1,070	0.99		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Cadmium	0.57	0.50		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Chromium	13.3	0.99		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Lead	20.9	0.99		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:11:32 AM
Zinc	171	0.99		mg/Kg-dry	1	1/10/2015 2:11:32 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	1,680	49		mg/Kg-dry	1	1/10/2015 3:24:38 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 12:30:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-009 **Matrix:** SOIL  
**Client Sample ID** WL-5 (2-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	12.8	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	2,200	387		mg/Kg-dry	100	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	17.2	0.10	*	mmhos/cm	1	1/12/2015 4:13:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	14.7	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	1.99	0.05	*	% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	6.09	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	31.1	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	36.3	0.100	*		1	1/12/2015
Soluble Calcium	14.1	1.00		meq/L	1	1/12/2015
Soluble Magnesium	14.5	1.00		meq/L	1	1/12/2015
Soluble Sodium	137	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported: **1/15/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 12:30:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-009 **Matrix:** SOIL  
**Client Sample ID** WL-5 (2-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	10,000	1,000		mg/Kg	100	1/12/2015 11:00:00 PM
TPH (Oil Range)	3,400	1,000		mg/Kg	100	1/12/2015 11:00:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	1/12/2015 11:00:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:17:20 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	1.31	0.99		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Barium	328	0.99		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Chromium	11.3	0.99		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Lead	14.9	0.99		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:15:19 AM
Zinc	218	0.99		mg/Kg-dry	1	1/10/2015 2:15:19 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	656	46		mg/Kg-dry	1	1/10/2015 3:35:20 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:00:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-010 **Matrix:** SOIL  
**Client Sample ID** WL-6 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	70.3	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	1,200	161		mg/Kg-dry	20	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	4.99	0.10	*	mmhos/cm	1	1/12/2015 4:13:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	11.2	0.1		%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	0.53	0.05		% dry wt	1	1/12/2015 12:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	5.88	1.68	C	S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	49.2	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	21.8	0.100	*		1	1/12/2015
Soluble Calcium	2.48	1.00		meq/L	1	1/12/2015
Soluble Magnesium	4.14	1.00		meq/L	1	1/12/2015
Soluble Sodium	39.7	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported: **1/15/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:00:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-010 **Matrix:** SOIL  
**Client Sample ID** WL-6 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	545	100		mg/Kg	10	1/12/2015 11:17:00 PM
TPH (Oil Range)	430	100		mg/Kg	10	1/12/2015 11:17:00 PM
Surr: 4-Terphenyl-d14	56.4	33 - 152		%REC	10	1/12/2015 11:17:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:20:05 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.29	0.99		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Barium	641	0.99		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Chromium	11.5	0.99		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Lead	15.3	0.99		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Selenium	< 1.98	1.98		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:18:50 AM
Zinc	54.4	0.99		mg/Kg-dry	1	1/10/2015 2:18:50 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	844	47		mg/Kg-dry	1	1/10/2015 3:38:43 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:15:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-011 **Matrix:** SOIL  
**Client Sample ID** WL-6 (4-6')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	97.2	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	40,700	5,460		mg/Kg-dry	500	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	82.3	0.10	*	mmhos/cm	1	1/12/2015 4:13:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	59.9	0.1	*	%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	0.44	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	5.72	1.68	C	S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	71.1	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	85.6	0.100	*		1	1/12/2015
Soluble Calcium	62.3	1.00		meq/L	1	1/12/2015
Soluble Magnesium	105	1.00		meq/L	1	1/12/2015
Soluble Sodium	782	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported: **1/15/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:15:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-011 **Matrix:** SOIL  
**Client Sample ID** WL-6 (4-6')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	106	100		mg/Kg	10	1/9/2015 11:36:00 PM
TPH (Oil Range)	116	100		mg/Kg	10	1/9/2015 11:36:00 PM
Surr: 4-Terphenyl-d14	51.1	33 - 152		%REC	10	1/9/2015 11:36:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:22:49 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.07	0.99		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Barium	226	0.99		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Chromium	7.93	0.99		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Lead	7.64	0.99		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:22:14 AM
Zinc	22.4	0.99		mg/Kg-dry	1	1/10/2015 2:22:14 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	346	49		mg/Kg-dry	1	1/10/2015 3:42:08 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:25:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-012 **Matrix:** SOIL  
**Client Sample ID** WL-6 (8-10')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	58.1	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	34,300	4,400		mg/Kg-dry	500	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	85.8	0.10	*	mmhos/cm	1	1/12/2015 4:13:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	40.0	0.1	*	%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	0.17	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	6.08	1.68		S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	55.1	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	81.2	0.100	*		1	1/12/2015
Soluble Calcium	71.9	1.00		meq/L	1	1/12/2015
Soluble Magnesium	133	1.00		meq/L	1	1/12/2015
Soluble Sodium	821	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported: **1/15/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:25:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-012 **Matrix:** SOIL  
**Client Sample ID** WL-6 (8-10')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 11:53:00 PM
TPH (Oil Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 11:53:00 PM
Surr: 4-Terphenyl-d14	81.8	33 - 152		%REC	10	1/9/2015 11:53:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:25:13 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.80	1.00		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Barium	115	1.00		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Chromium	11.5	1.00		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Lead	11.1	1.00		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:26:03 AM
Zinc	52.8	1.00		mg/Kg-dry	1	1/10/2015 2:26:03 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	165	48		mg/Kg-dry	1	1/10/2015 3:45:33 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010256

Date Reported: 1/15/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:35:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-013 **Matrix:** SOIL  
**Client Sample ID** WL-6 (10-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	86.6	0.1		meq/100g	1	1/13/2015 1:57:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	63,200	9,370		mg/Kg-dry	1000	1/13/2015 8:16:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Electrical Conductivity	162	1.00	*	mmhos/cm	10	1/12/2015 4:20:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	40.3	0.1	*	%	1	1/13/2015 1:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	0.25	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	6.23	1.68		S.U.	1	1/13/2015 4:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	75.0	1.0		wt%	1	1/7/2015 3:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	105	0.100	*		1	1/12/2015
Soluble Calcium	133	1.00		meq/L	1	1/12/2015
Soluble Magnesium	267	1.00		meq/L	1	1/12/2015
Soluble Sodium	1,490	1.00		meq/L	1	1/12/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010256**

Date Reported: **1/15/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/6/2015 2:35:00 PM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 15010256-013 **Matrix:** SOIL  
**Client Sample ID** WL-6 (10-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	50.3	50.0		mg/Kg	10	1/10/2015 3:38:00 AM
TPH (Oil Range)	< 50.0	50.0		mg/Kg	10	1/10/2015 3:38:00 AM
Surr: 4-Terphenyl-d14	98.6	33 - 152		%REC	10	1/10/2015 3:38:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 4:35:33 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.06	1.00		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Barium	223	1.00		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Chromium	8.77	1.00		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Lead	8.09	1.00		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/10/2015 2:29:35 AM
Zinc	24.9	1.00		mg/Kg-dry	1	1/10/2015 2:29:35 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	269	47		mg/Kg-dry	1	1/10/2015 3:48:58 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13912

Sample ID	<b>15010256-010AMS-</b>	SampType: <b>MS</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40631</b>					
Client ID:	<b>WL-6 (0-2')</b>	Batch ID: <b>13912</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/9/2015</b>	SeqNo: <b>974844</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)	496	100	100.0	430.2	65.6	14.5	174				
Surr: 4-Terphenyl-d14	1.59		3.330		47.8	33	152				

Sample ID	<b>15010256-010AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40631</b>					
Client ID:	<b>WL-6 (0-2')</b>	Batch ID: <b>13912</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/9/2015</b>	SeqNo: <b>974845</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)	587	100	100.0	430.2	157	14.5	174	495.8	16.8	48.8	
Surr: 4-Terphenyl-d14	1.89		3.330		56.6	33	152		0	40	

Sample ID	<b>LCS-D-13912</b>	SampType: <b>LCS</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40631</b>					
Client ID:	<b>LCSS</b>	Batch ID: <b>13912</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/9/2015</b>	SeqNo: <b>974848</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)	83.3	10.0	100.0	0	83.3	63.4	109				
Surr: 4-Terphenyl-d14	2.74		3.330		82.3	33	152				

Sample ID	<b>LCSD-D-13912</b>	SampType: <b>LCSD</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40631</b>					
Client ID:	<b>LCSS02</b>	Batch ID: <b>13912</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/9/2015</b>	SeqNo: <b>974849</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)	92.6	10.0	100.0	0	92.6	63.4	109	83.32	10.5	17.2	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



Element Materials Technology Lafayette  
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 TEL: (337) 235-0483 FAX: (337) 233-6540  
 Website: www.element.com

# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13912

Sample ID	<b>LCSD-D-13912</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974849</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 4-Terphenyl-d14      3.11      3.330      93.4      33      152      0      40

Sample ID	<b>LCSD-M-13912</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974850</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)      103      10.0      100.0      0      103      63.9      120      94.60      8.69      16.6  
 Surr: 4-Terphenyl-d14      3.10      3.330      93.1      33      152      0      40

Sample ID	<b>LCS-M-13912</b>	SampType:	<b>LCS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>LCSS</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974851</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)      94.6      10.0      100.0      0      94.6      63.9      120  
 Surr: 4-Terphenyl-d14      2.93      3.330      87.9      33      152

Sample ID	<b>MB-13912</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974852</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)      < 5.00      5.00  
 TPH (Oil Range)      < 5.00      5.00

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13912

Sample ID	<b>MB-13912</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974852</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14		3.02			3.330			90.8	33	152				

Sample ID	<b>15010256-010AMS-</b>	SampType:	<b>MS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>WL-6 (0-2')</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974853</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)		585		100	100.0	544.8		39.7	23.4	123				
Surr: 4-Terphenyl-d14		2.41			3.330			72.4	33	152				

Sample ID	<b>15010256-010AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>WL-6 (0-2')</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974854</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)		484		100	100.0	544.8		-61.0	23.4	123	584.5	18.9	35.6	S
Surr: 4-Terphenyl-d14		2.04			3.330			61.4	33	152		0	40	

**NOTES:**

S - Analyte concentration in native sample was too high for accurate spike recovery(ies). The method is in control as indicated by the laboratory control sample (LCS).

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13929

Sample ID	<b>LCS-D-13929</b>	SampType: <b>LCS</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40632</b>					
Client ID:	<b>LCSS</b>	Batch ID: <b>13929</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/10/2015</b>	SeqNo: <b>974882</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)	91.2	10.0	100.0	0	91.2	63.4	109				
Surr: 4-Terphenyl-d14	3.07		3.330		92.2	33	152				

Sample ID	<b>LCSD-D-13929</b>	SampType: <b>LCSD</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40632</b>					
Client ID:	<b>LCSS02</b>	Batch ID: <b>13929</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/10/2015</b>	SeqNo: <b>974883</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)	86.2	10.0	100.0	0	86.2	63.4	109	91.24	5.68	17.2	
Surr: 4-Terphenyl-d14	2.87		3.330		86.2	33	152		0	40	

Sample ID	<b>LCSD-M-13929</b>	SampType: <b>LCSD</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40632</b>					
Client ID:	<b>LCSS02</b>	Batch ID: <b>13929</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/10/2015</b>	SeqNo: <b>974884</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)	101	10.0	100.0	0	101	63.9	120	113.7	12.3	16.6	
Surr: 4-Terphenyl-d14	2.94		3.330		88.3	33	152		0	40	

Sample ID	<b>LCS-M-13929</b>	SampType: <b>LCS</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/8/2015</b>	RunNo: <b>40632</b>					
Client ID:	<b>LCSS</b>	Batch ID: <b>13929</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>1/10/2015</b>	SeqNo: <b>974885</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)	114	10.0	100.0	0	114	63.9	120				

**Qualifiers:**

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13929

Sample ID	<b>LCS-M-13929</b>	SampType:	<b>LCS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40632</b>			
Client ID:	<b>LCSS</b>	Batch ID:	<b>13929</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>974885</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14		3.47			3.330			104	33	152				

Sample ID	<b>MB-13929</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40632</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13929</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>974886</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)		< 5.00		5.00										
TPH (Oil Range)		< 5.00		5.00										
Surr: 4-Terphenyl-d14		3.04			3.330			91.2	33	152				

Sample ID	<b>15010256-013AMS-</b>	SampType:	<b>MS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40632</b>			
Client ID:	<b>WL-6 (10-13')</b>	Batch ID:	<b>13929</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>974887</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)		139		100	100.0	47.88		91.6	14.5	174				
Surr: 4-Terphenyl-d14		1.74			3.330			52.4	33	152				

Sample ID	<b>15010256-013AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40632</b>			
Client ID:	<b>WL-6 (10-13')</b>	Batch ID:	<b>13929</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>974888</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)		164		100	100.0	47.88		116	14.5	174	139.5	16.1	48.8	

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				





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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13929

Sample ID	<b>15010256-013AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40632</b>			
Client ID:	<b>WL-6 (10-13')</b>	Batch ID:	<b>13929</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>974888</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14		2.31			3.330			69.3	33	152		0	40	

Sample ID	<b>15010256-013AMS-</b>	SampType:	<b>MS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40632</b>			
Client ID:	<b>WL-6 (10-13')</b>	Batch ID:	<b>13929</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>974889</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)		111		100	100.0	50.28		60.9	23.4	123				
Surr: 4-Terphenyl-d14		2.21			3.330			66.5	33	152				

Sample ID	<b>15010256-013AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40632</b>			
Client ID:	<b>WL-6 (10-13')</b>	Batch ID:	<b>13929</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>974890</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)		97.5		50.0	100.0	50.28		47.3	23.4	123	111.2	13.1	35.6	
Surr: 4-Terphenyl-d14		1.88			3.330			56.5	33	152		0	40	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13935

Sample ID	<b>MB-13935</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40640</b>		
Client ID:	<b>PBS</b>	Batch ID:	<b>13935</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>975125</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		< 1.00		1.00									
Barium		< 1.00		1.00									
Cadmium		< 0.50		0.50									
Chromium		< 1.00		1.00									
Lead		< 1.00		1.00									
Selenium		< 2.00		2.00									
Silver		< 0.50		0.50									
Zinc		< 1.00		1.00									

Sample ID	<b>LCS-13935</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40640</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>13935</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>975126</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		51.0		1.00	50.00	0	102	80	120				
Barium		50.5		1.00	50.00	0	101	80	120				
Cadmium		50.6		0.50	50.00	0	101	80	120				
Chromium		49.5		1.00	50.00	0	99.0	80	120				
Lead		50.9		1.00	50.00	0	102	80	120				
Selenium		51.6		2.00	50.00	0	103	80	120				
Silver		25.2		0.50	25.00	0	101	80	120				
Zinc		52.2		1.00	50.00	0	104	80	120				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13935

Sample ID	<b>LCSD-13935</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40640</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13935</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>975127</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	51.0	1.00	50.00	0	102	80	120	51.02	0.10	20	
Barium	49.9	1.00	50.00	0	99.8	80	120	50.51	1.24	20	
Cadmium	50.0	0.50	50.00	0	100	80	120	50.64	1.17	20	
Chromium	48.9	1.00	50.00	0	97.9	80	120	49.52	1.18	20	
Lead	51.2	1.00	50.00	0	102	80	120	50.90	0.51	20	
Selenium	51.3	2.00	50.00	0	103	80	120	51.65	0.78	20	
Silver	24.9	0.50	25.00	0	99.4	80	120	25.16	1.20	20	
Zinc	51.7	1.00	50.00	0	103	80	120	52.21	1.06	20	

Sample ID	<b>15010256-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40640</b>
Client ID:	<b>WL-3 (0-2')</b>	Batch ID:	<b>13935</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>975132</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	65.9	0.99	49.73	4.11	124	75	125				
Barium	406	0.99	49.73	351.3	110	75	125				
Cadmium	60.7	0.50	49.73	2.70	117	75	125				
Chromium	78.9	0.99	49.73	20.62	117	75	125				
Lead	158	0.99	49.73	99.88	117	75	125				
Selenium	53.6	1.99	49.73	0	108	75	125				
Silver	24.3	0.50	24.87	0	97.7	75	125				
Zinc	1,420	0.99	49.73	1,372	96.2	75	125				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13935

Sample ID	<b>15010256-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40640</b>
Client ID:	<b>WL-3 (0-2')</b>	Batch ID:	<b>13935</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>975133</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	65.9	0.99	49.73	4.11	124	75	125	65.90	0.07	20	
Barium	405	0.99	49.73	351.3	108	75	125	405.9	0.21	20	
Cadmium	60.6	0.50	49.73	2.70	116	75	125	60.70	0.17	20	
Chromium	78.6	0.99	49.73	20.62	117	75	125	78.87	0.31	20	
Lead	158	0.99	49.73	99.88	117	75	125	158.2	0.14	20	
Selenium	53.3	1.99	49.73	0	107	75	125	53.56	0.42	20	
Silver	23.7	0.50	24.86	0	95.3	75	125	24.29	2.46	20	
Zinc	1,420	0.99	49.73	1,372	89.9	75	125	1,420	0.22	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13936

Sample ID	<b>MB-13936</b>	SampType:	<b>MBLK</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40640</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13936</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>975149</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		< 50		50							

Sample ID	<b>LCS-13936</b>	SampType:	<b>LCS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40640</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13936</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>975150</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		4,780		50	5,000	0	96	75	125		

Sample ID	<b>LCSD-13936</b>	SampType:	<b>LCSD</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40640</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13936</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>975151</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		4,780		50	5,000	0	96	75	125	4,776	0 20

Sample ID	<b>15010256-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40640</b>
Client ID:	<b>WL-3 (0-2')</b>	Batch ID:	<b>13936</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>975155</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		5,100		48	4,803	697	92	75	125		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13936

Sample ID	<b>15010256-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40640</b>		
Client ID:	<b>WL-3 (0-2')</b>	Batch ID:	<b>13936</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/10/2015</b>	SeqNo:	<b>975156</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium		5,550		48	4,812	697	101	75	125	5,101	8	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13940

Sample ID	<b>MB-13940</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40659</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13940</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975714</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury < 0.10 0.10

Sample ID	<b>LCS-13940</b>	SampType:	<b>LCS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40659</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13940</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975715</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 0.89 0.10 0.83 0 107 80 120

Sample ID	<b>LCSD-13940</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40659</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13940</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975716</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 0.93 0.10 0.83 0 112 80 120 0.89 4.35 20

Sample ID	<b>15010126-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40659</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13940</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975718</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 1.43 0.10 0.83 0.62 98.6 75 125

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13940

Sample ID	<b>15010126-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40659</b>		
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13940</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975719</b>				
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		1.39		0.10	0.82	0.62	94.6	75	125	1.43	2.95	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13941

Sample ID	<b>MB-13941</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40664</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13941</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975912</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Mercury		< 0.10		0.10							

Sample ID	<b>LCS-13941</b>	SampType:	<b>LCS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40664</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13941</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975913</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Mercury		0.86		0.10	0.83	0	103	80	120		

Sample ID	<b>LCSD-13941</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40664</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13941</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975914</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Mercury		0.84		0.10	0.83	0	101	80	120	0.86	2.01 20

Sample ID	<b>15010256-013AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40664</b>
Client ID:	<b>WL-6 (10-13')</b>	Batch ID:	<b>13941</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975918</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Mercury		0.93		0.10	0.83	0	113	75	125		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13941

Sample ID	<b>15010256-013AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40664</b>		
Client ID:	<b>WL-6 (10-13')</b>	Batch ID:	<b>13941</b>	TestNo:	<b>29B/SW7471 SW7471A</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975919</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.92		0.10	0.81	0	113	75	125	0.93	1.12	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13959

Sample ID	<b>15010256-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>SAR_S</b>	Units:		Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40666</b>		
Client ID:	<b>WL-3 (0-2')</b>	Batch ID:	<b>13959</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975947</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium Adsorption Ratio		32.0		0.100						31.64	1.27	20	*
Soluble Calcium		16.8		1.00						16.22	3.71	20	
Soluble Magnesium		9.88		1.00						9.480	4.16	20	
Soluble Sodium		117		1.00						113.4	3.21	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13962

Sample ID	<b>15010256-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>ESP_S</b>	Units:	<b>%</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40693</b>		
Client ID:	<b>WL-3 (0-2')</b>	Batch ID:	<b>13962</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976416</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Exchangeable Sodium %		15.1		0.1						14.8	2.0	20	*

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13963

Sample ID	<b>15010256-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>CEC</b>	Units:	<b>meq/100g</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40691</b>
Client ID:	<b>WL-3 (0-2')</b>	Batch ID:	<b>13963</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976384</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		33.8		0.1						32.9	2.6 20

Sample ID	<b>LCS-13963</b>	SampType:	<b>LCS</b>	TestCode:	<b>CEC</b>	Units:	<b>meq/100g</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40691</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13963</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976397</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		23.6		0.1	25.0	0	94.3	76	124		

Sample ID	<b>LCSD-13963</b>	SampType:	<b>LCSD</b>	TestCode:	<b>CEC</b>	Units:	<b>meq/100g</b>	Prep Date:	<b>1/12/2015</b>	RunNo:	<b>40691</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13963</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976398</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		23.5		0.1	25.0	0	94.1	76	124	23.6	0.2 20

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40592

Sample ID	<b>MB-R40592</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40592</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R40592</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975323</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

< 0.05 0.05

Sample ID	<b>LCS-R40592</b>	SampType:	<b>LCS</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40592</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R40592</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975324</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

0.25 0.05 0.20 0 123 70 130

Sample ID	<b>LCSD-R40592</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40592</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R40592</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975325</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

0.25 0.05 0.20 0 125 70 130 0.25 1.62 40

Sample ID	<b>15010126-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40592</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R40592</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975326</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

1.84 0.05 0.35 0.97 245 70 130 S

**NOTES:**

S - Spike recovery indicates matrix interference. The method is in control as indicated by the Lab Control Sample.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
	ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40592

Sample ID	<b>15010126-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40592</b>		
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R40592</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975327</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
HEM, Oil & Grease		0.90		0.05						0.97	7.90	40	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40593

Sample ID	<b>MB-R40593</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40593</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R40593</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>976437</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
HEM, Oil & Grease		< 0.05		0.05							

Sample ID	<b>LCS-R40593</b>	SampType:	<b>LCS</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40593</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R40593</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>976438</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
HEM, Oil & Grease		0.23		0.05	0.20	0	113	70	130		

Sample ID	<b>LCSD-R40593</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40593</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R40593</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>976439</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
HEM, Oil & Grease		0.22		0.05	0.20	0	109	70	130	0.23	3.38 40

Sample ID	<b>15010256-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40593</b>
Client ID:	<b>WL-3 (0-2')</b>	Batch ID:	<b>R40593</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>976440</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
HEM, Oil & Grease		6.86		0.05	0.31	5.61	398	70	130		

**NOTES:**

S - Analyte concentration in native sample was too high for accurate spike recovery(ies). The method is in control as indicated by the laboratory control sample (LCS).

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40593

Sample ID	<b>15010256-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40593</b>		
Client ID:	<b>WL-3 (0-2')</b>	Batch ID:	<b>R40593</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>976441</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
HEM, Oil & Grease		5.78		0.05						5.61	2.94	40	*

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40655

Sample ID	<b>MB-R40655</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>40655</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R40655</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975494</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity < 0.10 0.10

Sample ID	<b>R40655LCS1</b>	SampType:	<b>LCS1</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>40655</b>
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R40655</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975496</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity 0.48 0.10 0.47 0 100 89.87 110.12

Sample ID	<b>R40655LCS2</b>	SampType:	<b>LCS2</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>40655</b>
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R40655</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975498</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity 50.8 0.10 53.00 0 95.8 90 110

Sample ID	<b>15010256-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>40655</b>
Client ID:	<b>WL-3 (0-2')</b>	Batch ID:	<b>R40655</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975501</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity 13.7 0.10 14.52 6.03 20 \*

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40656

Sample ID	<b>LCS-R40656</b>	SampType:	<b>LCS</b>	TestCode:	<b>PH_S</b>	Units:	<b>S.U.</b>	Prep Date:		RunNo:	<b>40656</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>R40656</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975479</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

pH Measurement                      7.10                      1.68                      7.00                      0                      101                      97.14                      102.86

Sample ID	<b>15010126-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>PH_S</b>	Units:	<b>S.U.</b>	Prep Date:		RunNo:	<b>40656</b>		
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R40656</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975483</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

pH Measurement                      4.87                      1.68                                                                                                                               4.87                      0                      20                      C

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40671

Sample ID	<b>MB-R40671</b>	SampType:	<b>MBLK</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40671</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R40671</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976226</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		< 10		10							

Sample ID	<b>LCSD-R40671</b>	SampType:	<b>LCSD</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40671</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R40671</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976227</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		110		10	100	0	110	80	120	106	3 20

Sample ID	<b>LCS-R40671</b>	SampType:	<b>LCS</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40671</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R40671</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976228</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		106		10	100	0	106	80	120		

Sample ID	<b>15010256-013AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40671</b>
Client ID:	<b>WL-6 (10-13')</b>	Batch ID:	<b>R40671</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976241</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		146,000		9,370	93,700	63,200	89	80	120	153,000	4 20

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40671

Sample ID	<b>15010256-013AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40671</b>
Client ID:	<b>WL-6 (10-13')</b>	Batch ID:	<b>R40671</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976243</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		153,000		9,370	93,700	63,200	96	80	120		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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 Lafayette, LA 70508-3344  
 TEL: (337) 235-0483 FAX: (337) 233-6540  
 Website: [www.element.com](http://www.element.com)

# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40672

Sample ID	<b>15010256-001ADUP</b>	SampType:	<b>dup</b>	TestCode:	<b>PMOIST</b>	Units:	<b>wt%</b>	Prep Date:		RunNo:	<b>40672</b>		
Client ID:	<b>WL-3 (0-2')</b>	Batch ID:	<b>R40672</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/7/2015</b>	SeqNo:	<b>976109</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture		31.8		1.0						36.3	13.2	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010256  
 15-Jan-15

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** R40694

Sample ID	<b>LCS-R40694</b>	SampType:	<b>LCS</b>	TestCode:	<b>PH_S</b>	Units:	<b>S.U.</b>	Prep Date:		RunNo:	<b>40694</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R40694</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976539</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

pH Measurement 7.00 1.68 7.00 0 100 97.14 102.86

Sample ID	<b>15010294-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>PH_S</b>	Units:	<b>S.U.</b>	Prep Date:		RunNo:	<b>40694</b>
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R40694</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/13/2015</b>	SeqNo:	<b>976544</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

pH Measurement 6.33 1.68 6.38 0.79 20

**Qualifiers:**



- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- PL Permit Limit
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- C Value is below Minimum Compound Limit.
- M Matrix Interference
- P Second column confirmation exceeds
- RL Reporting Detection Limit



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## Sample Log-In Check List

Client Name: **ICON\_ENV** Work Order Number: **15010256** RcptNo: **1**

Logged by:	<b>Rhonda David</b>	<b>1/7/2015 2:00:00 PM</b>	
Completed By:	<b>Rhonda David</b>	<b>1/7/2015 2:35:05 PM</b>	
Reviewed By:	<b>Caitlin Duplantis</b>	<b>1/8/2015 2:11:00 PM</b>	

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Element

### Log In

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 Custody seals intact on shipping container/cooler? Yes  No  Not Present   
 No. Seal Date: Signed By:  
 5. Was an attempt made to cool the samples? Yes  No  NA   
 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
 7. Sample(s) in proper container(s)? Yes  No   
 8. Sufficient sample volume for indicated test(s)? Yes  No   
 9. Are samples (except VOA and ONG) properly preserved? Yes  No   
 10. Was preservative added to bottles? Yes  No  NA   
 11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  No VOA Vials   
 12. Were any sample containers received broken? Yes  No   
 13. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)  
 14. Are matrices correctly identified on Chain of Custody? Yes  No   
 15. Is it clear what analyses were requested? Yes  No   
 16. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

### Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.3	Good	Not Present			





# Chain of Custody

## Laboratory Number

15010256

Client Information: **ICON** Billing Information: **SARVE** PG Number: **9077-041-0800** Project Name/Number: **V.P.S.B. East White Lake** Page 1 of 2

Contact Name: **C-reg Miller** Address: **Part Allen LA 26767** Ext: **DP5 3448490** Required QC Level: **DRP** Sampler's Signature: **DRP** Matrix Code: **DW = Drinking Water, WW = Wastewater, GW = Ground Water, AQ = Aqueous, OT = Other, SL = Sludge, SOL = Solid, O = Oil, SO = Soil, F = Food, SW = Swab, NG = Natural Gas, NGL = Natural Gas Liquid, PW = Produced Water, CF = Completion Fluid**

Which Regulations Apply:  RCRA,  PGTW,  NPDES,  USDA/FDA,  RECAP/ISC,  Drinking Water,  Distribution,  Special,  Sludge,  Other

Turn Time:  Standard,  RUSH,  1 Day,  2 Day,  Other

Shipping Method: **UPS / FedEx / Airborne**

DHL / Element / **Other** / Mail

Sample ID/Description	Collection Information			Quantity	Container	Pres.	Requested Tests	Comments
	Date	Time	Matrix					
WL-3 (0-2')	1-6-15	845	G	1	G	ALIVE	TPH-D10	All dry weight
WL-3 (4-6')		900						
WL-3 (10-13')		910						
WL-4 (0-2')		1015						
WL-4 (2-4')		1025						
WL-4 (4-11')		1040						
WL-4 (11-12.5')		1050						
WL-5 (0-2')		1210						
WL-5 (2-13')		1230						

Relinquished by	Date/Time	Received by	Date/Time	Field Notes
<b>Cathy B</b>	4/7/15 1400	<b>Vanessa Hill</b>	4/7/15 1400	

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

9301 Innovation Drive, Suite 115  
 Dallas, TX 75244-0669 USA  
 P 765-378-4100 F 765-378-4108

629 Washington St, Suite 300  
 Columbus, IN 47201-8231 USA  
 P 812-375-0531 F 812-375-0751

2121 East Washington Boulevard  
 Fort Wayne, IN 46803-1328 USA  
 P 260-471-7000 F 260-471-3777

568 South Zimmer Road  
 Warsaw, IN 46580-2368 USA  
 P 574-267-3305 F 574-269-6365

3371 Cleveland Road, Suite 100A  
 Lafayette, LA 70508-2344 USA  
 P 337-235-0483 F 337-233-6546



Chain of Custody

Laboratory Number: 15010256

Client Information: **Billing Information:** *SAME*

Company Name: *ICON* PO Number: *V.P.S.B. East 44th Lake*

Contact Name: *Greg Miller* Quote Number: *9077-841-0800*

Address: *Port Allen, LA 70767* Required QC Level: *DER*

City, State Zip: *Port Allen, LA 70767* Ext: \_\_\_\_\_

Phone Number: *825-344-8490* Bill Monthly:  Yes

Fax Number: \_\_\_\_\_  No

E-mail Address: \_\_\_\_\_

Project Name/Number: *V.P.S.B. East 44th Lake* Matrix Code: *DW = Drinking Water*  
*WW = Wastewater*  
*GW = Groundwater*  
*AQ = Aqueous*  
*OT = Other*  
*SL = Sludge*  
*SOL = Solid*  
*O = Oil*  
*SW = Sewage*  
*F = Food*  
*NG = Natural Gas*  
*NGL = Natural Gas Liquid*  
*PW = Produced Water*  
*CF = Completion Fluid*

Sampler's Signature: \_\_\_\_\_ Shipping Method: *UPS / FedEx / Airborne*  
 DHL / Element / *Hand* / Mail

Sample ID/Description	Which Regulations Apply: <input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USCA/FTA <input type="checkbox"/> RECAP/RSIC	Turn Time <input type="checkbox"/> Standard <input checked="" type="checkbox"/> RUSH	(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container Quantity	Pres. HCl, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> NaOH, Na <sub>2</sub> SO <sub>3</sub>	Requested Tests	Comments
WL-6 (0-2')		1-6-15	1400	G	50	X	SOILS NEEDED
WL-6 (4-6')		↓	1415	↓	↓	X	TPH-D10
WL-6 (8-10')		↓	1425	↓	↓	X	Fall 298
WL-6 (10-13')		↓	1435	↓	↓	X	

Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
<i>Greg Miller</i>	1/7/15 1400	<i>Greg Miller</i>	1-7-15 1400	Received at lab on ice? <i>OH</i> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: <i>0.3C</i>

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

9301 Innovation Drive, Suite 115 Daleville, W 47354-0569 USA P 765-378-4103 F 765-378-4109  
 629 Washington St, Suite 300 Columbus, IN 47201-0231 USA P 812-375-0531 F 812-375-0731  
 3121 East Washington Boulevard Fort Wayne, IN 46803-1328 USA P 260-471-7000 F 260-471-7777  
 560 South Zimmer Road Warsaw, IN 46580-2168 USA P 574-287-3005 F 574-289-6668  
 3371 Cleveland Road, Suite 100A South Bend, IN 46626-9766 USA P 574-277-0707 F 574-277-5609  
 2417 W. Fishhook Rd Lafayette, LA 70506-1344 USA P 337-335-0883 F 337-333-6540



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January 14, 2015

Greg Miller  
ICON Environmental Services  
2049 Commercial Drive  
Port Allen, LA 70767  
TEL: (225) 344-8490  
FAX (225) 344-6654

RE: V.P.S.B East White Lake 9077-041-0800

Order No.: 15010126

Dear Greg Miller:

Element Materials Technology Lafayette, LLC received 8 sample(s) on 1/6/2015 for the analyses presented in the following report.

In accordance with your instructions Element Lafayette conducted the analysis shown on the following pages on samples submitted by your company. The results related only to the items tested. Unless otherwise noted, all analyses were conducted using EPA approved methodologies and all test results meet all requirements of TNI. All relevant sampling information is on the attached Chain-of-Custody form.

All soil data, except for 29-B, are on a wet-weight basis unless otherwise indicated in the units field as –dry.

LELAP Certification No.: 01997. TCEQ Certification No.: T104704261-14-6. A scope of accredited parameters is available upon request. A "#" by the test method or analyte indicates this parameter is outside the scope of accreditation.

Estimated uncertainty is available upon request. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in blue ink that reads 'Annie Reedy'.

Annie Reedy  
Manager, Analytical Services  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344



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## Case Narrative

WO#: 15010126  
Date: 1/14/2015

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**CLIENT:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

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Unless specified by the client, a duplicate or MS/MSD, wherever applicable, is randomly selected and analyzed from each analytical batch provided sample volume is sufficient. The sample chosen for duplicate or MS/MSD may or may not be a sample submitted in this workorder. A method blank and/or a lab control sample (LCS)/lab control sample duplicate (LCSD), wherever applicable, are processed as a quality control check for each analytical batch. When the matrix QC data is not available due to insufficient sample volume or when the results indicate possible matrix effect, the validity of the batch is determined by the method blank and LCS/LCSD.

The results of the laboratory internal quality control data are provided in the QC Summary Report section of the report for your review. Laboratory-related QC exceptions that may impact the validity of data are discussed in the case narrative. Sample-related QC exceptions are flagged either in the results page(s) or in the QC report page(s). End users should consider QC exceptions when evaluating sample data against data quality objectives.

Any other exceptions associated with this report will be footnoted in the results page(s) or the QC summary page(s).



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# Analytical Report

(consolidated)

WO#: 15010126

Date Reported: 1/14/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 12:10:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-001 **Matrix:** SOIL  
**Client Sample ID** WL-1 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	63.8	0.1		meq/100g	1	1/12/2015 2:22:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	1,440	169		mg/Kg-dry	20	1/12/2015 8:24:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>IAI</b>
Electrical Conductivity	5.34	0.10	*	mmhos/cm	1	1/9/2015 11:30:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	12.8	0.1		%	1	1/12/2015 2:22:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	0.97	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	4.87	1.68	C	S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	43.6	1.0		wt%	1	1/6/2015 1:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	19.4	0.100	*		1	1/9/2015
Soluble Calcium	3.02	1.00		meq/L	1	1/9/2015
Soluble Magnesium	4.79	1.00		meq/L	1	1/9/2015
Soluble Sodium	38.4	1.00		meq/L	1	1/9/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010126**

Date Reported: **1/14/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 12:10:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-001 **Matrix:** SOIL  
**Client Sample ID** WL-1 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	1,560	100		mg/Kg	10	1/9/2015 5:56:00 PM
TPH (Oil Range)	1,140	100		mg/Kg	10	1/9/2015 5:56:00 PM
Surr: 4-Terphenyl-d14	53.8	33 - 152		%REC	10	1/9/2015 5:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.62	0.10		mg/Kg-dry	1	1/12/2015 2:10:56 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.41	0.99		mg/Kg-dry	1	1/9/2015 9:24:33 PM
Barium	319	0.99		mg/Kg-dry	1	1/9/2015 9:24:33 PM
Cadmium	0.58	0.50		mg/Kg-dry	1	1/9/2015 9:24:33 PM
Chromium	14.9	0.99		mg/Kg-dry	1	1/9/2015 9:24:33 PM
Lead	12.5	0.99		mg/Kg-dry	1	1/9/2015 9:24:33 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/9/2015 9:24:33 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 9:24:33 PM
Zinc	45.2	0.99		mg/Kg-dry	1	1/9/2015 9:24:33 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	421	48		mg/Kg-dry	1	1/9/2015 10:38:52 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010126

Date Reported: 1/14/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 12:16:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-002 **Matrix:** SOIL  
**Client Sample ID** WL-1 (2-4')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	49.7	0.1		meq/100g	1	1/12/2015 2:22:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	2,850	534		mg/Kg-dry	50	1/12/2015 8:24:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>IAI</b>
Electrical Conductivity	9.90	0.10	*	mmhos/cm	1	1/9/2015 11:30:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	18.9	0.1	*	%	1	1/12/2015 2:22:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	0.09	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	7.00	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	48.8	1.0		wt%	1	1/6/2015 1:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	24.2	0.100	*		1	1/9/2015
Soluble Calcium	6.48	1.00		meq/L	1	1/9/2015
Soluble Magnesium	11.9	1.00		meq/L	1	1/9/2015
Soluble Sodium	73.5	1.00		meq/L	1	1/9/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010126**

Date Reported: **1/14/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 12:16:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-002 **Matrix:** SOIL  
**Client Sample ID** WL-1 (2-4')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	58.6	50.0		mg/Kg	10	1/9/2015 6:12:00 PM
TPH (Oil Range)	66.0	50.0		mg/Kg	10	1/9/2015 6:12:00 PM
Surr: 4-Terphenyl-d14	102	33 - 152		%REC	10	1/9/2015 6:12:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 2:19:07 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.21	0.99		mg/Kg-dry	1	1/9/2015 9:34:56 PM
Barium	106	0.99		mg/Kg-dry	1	1/9/2015 9:34:56 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 9:34:56 PM
Chromium	14.4	0.99		mg/Kg-dry	1	1/9/2015 9:34:56 PM
Lead	14.4	0.99		mg/Kg-dry	1	1/9/2015 9:34:56 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/9/2015 9:34:56 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 9:34:56 PM
Zinc	73.8	0.99		mg/Kg-dry	1	1/9/2015 9:34:56 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	173	47		mg/Kg-dry	1	1/9/2015 10:42:16 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





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# Analytical Report

(consolidated)

WO#: 15010126

Date Reported: 1/14/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 12:26:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-003 **Matrix:** SOIL  
**Client Sample ID** WL-1 (6-8')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	111	0.1		meq/100g	1	1/12/2015 2:22:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	11,200	1,170		mg/Kg-dry	100	1/12/2015 8:24:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>IAI</b>
Electrical Conductivity	27.8	0.10	*	mmhos/cm	1	1/9/2015 11:30:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	10.2	0.1		%	1	1/12/2015 2:22:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	0.47	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	5.87	1.68	C	S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	75.5	1.0		wt%	1	1/6/2015 1:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	28.9	0.100	*		1	1/9/2015
Soluble Calcium	27.4	1.00		meq/L	1	1/9/2015
Soluble Magnesium	68.8	1.00		meq/L	1	1/9/2015
Soluble Sodium	201	1.00		meq/L	1	1/9/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010126**

Date Reported: **1/14/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 12:26:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-003 **Matrix:** SOIL  
**Client Sample ID** WL-1 (6-8')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 6:28:00 PM
TPH (Oil Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 6:28:00 PM
Surr: 4-Terphenyl-d14	69.1	33 - 152		%REC	10	1/9/2015 6:28:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 2:21:31 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.89	1.00		mg/Kg-dry	1	1/9/2015 9:38:50 PM
Barium	181	1.00		mg/Kg-dry	1	1/9/2015 9:38:50 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 9:38:50 PM
Chromium	10.2	1.00		mg/Kg-dry	1	1/9/2015 9:38:50 PM
Lead	9.72	1.00		mg/Kg-dry	1	1/9/2015 9:38:50 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/9/2015 9:38:50 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 9:38:50 PM
Zinc	30.4	1.00		mg/Kg-dry	1	1/9/2015 9:38:50 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	276	48		mg/Kg-dry	1	1/9/2015 10:45:39 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010126

Date Reported: 1/14/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 12:40:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-004 **Matrix:** SOIL  
**Client Sample ID** WL-1 (9-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	57.7	0.1		meq/100g	1	1/12/2015 2:22:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	3,710	580		mg/Kg-dry	50	1/12/2015 8:24:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	10.7	0.10	*	mmhos/cm	1	1/9/2015 11:30:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	10.2	0.1		%	1	1/12/2015 2:22:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.08	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
pH Measurement	7.26	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
Percent Moisture	52.6	1.0		wt%	1	1/6/2015 1:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	17.5	0.100	*		1	1/9/2015
Soluble Calcium	10.1	1.00		meq/L	1	1/9/2015
Soluble Magnesium	24.2	1.00		meq/L	1	1/9/2015
Soluble Sodium	72.3	1.00		meq/L	1	1/9/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010126**

Date Reported: **1/14/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 12:40:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-004 **Matrix:** SOIL  
**Client Sample ID** WL-1 (9-13')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 6:45:00 PM
TPH (Oil Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 6:45:00 PM
Surr: 4-Terphenyl-d14	81.4	33 - 152		%REC	10	1/9/2015 6:45:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 2:24:16 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.03	0.99		mg/Kg-dry	1	1/9/2015 9:42:26 PM
Barium	89.9	0.99		mg/Kg-dry	1	1/9/2015 9:42:26 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 9:42:26 PM
Chromium	15.0	0.99		mg/Kg-dry	1	1/9/2015 9:42:26 PM
Lead	14.8	0.99		mg/Kg-dry	1	1/9/2015 9:42:26 PM
Selenium	< 1.98	1.98		mg/Kg-dry	1	1/9/2015 9:42:26 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 9:42:26 PM
Zinc	64.7	0.99		mg/Kg-dry	1	1/9/2015 9:42:26 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	154	47		mg/Kg-dry	1	1/9/2015 10:49:01 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010126

Date Reported: 1/14/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 2:05:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-005 **Matrix:** SOIL  
**Client Sample ID** WL-2 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	42.9	0.1		meq/100g	1	1/12/2015 2:22:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	3,000	292		mg/Kg-dry	25	1/12/2015 8:24:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>IAI</b>
Electrical Conductivity	8.16	0.10	*	mmhos/cm	1	1/9/2015 11:30:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	28.0	0.1	*	%	1	1/12/2015 2:22:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	0.10	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	5.25	1.68	C	S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	38.0	1.0		wt%	1	1/6/2015 1:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	28.7	0.100	*		1	1/9/2015
Soluble Calcium	3.31	1.00		meq/L	1	1/9/2015
Soluble Magnesium	5.67	1.00		meq/L	1	1/9/2015
Soluble Sodium	60.9	1.00		meq/L	1	1/9/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010126**

Date Reported: **1/14/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 2:05:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-005 **Matrix:** SOIL  
**Client Sample ID** WL-2 (0-2')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	182	100		mg/Kg	10	1/9/2015 7:01:00 PM
TPH (Oil Range)	125	100		mg/Kg	10	1/9/2015 7:01:00 PM
Surr: 4-Terphenyl-d14	68.7	33 - 152		%REC	10	1/9/2015 7:01:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.10	0.10		mg/Kg-dry	1	1/12/2015 2:31:54 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	< 0.99	0.99		mg/Kg-dry	1	1/9/2015 9:53:28 PM
Barium	180	0.99		mg/Kg-dry	1	1/9/2015 9:53:28 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 9:53:28 PM
Chromium	12.6	0.99		mg/Kg-dry	1	1/9/2015 9:53:28 PM
Lead	15.9	0.99		mg/Kg-dry	1	1/9/2015 9:53:28 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/9/2015 9:53:28 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 9:53:28 PM
Zinc	70.2	0.99		mg/Kg-dry	1	1/9/2015 9:53:28 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	274	46		mg/Kg-dry	1	1/9/2015 10:52:24 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010126

Date Reported: 1/14/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 2:10:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-006 **Matrix:** SOIL  
**Client Sample ID** WL-2 (2-4')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	50.7	0.1		meq/100g	1	1/12/2015 2:22:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	5,700	554		mg/Kg-dry	50	1/12/2015 8:24:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>IAI</b>
Electrical Conductivity	16.7	0.10	*	mmhos/cm	1	1/9/2015 11:30:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	24.7	0.1	*	%	1	1/12/2015 2:22:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	0.07	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	5.89	1.68	C	S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	45.5	1.0		wt%	1	1/6/2015 1:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	35.1	0.100	*		1	1/9/2015
Soluble Calcium	9.87	1.00		meq/L	1	1/9/2015
Soluble Magnesium	18.6	1.00		meq/L	1	1/9/2015
Soluble Sodium	132	1.00		meq/L	1	1/9/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette  
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 Website: [www.element.com](http://www.element.com)

# Analytical Report

(consolidated)

WO#: **15010126**

Date Reported: **1/14/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 2:10:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-006 **Matrix:** SOIL  
**Client Sample ID** WL-2 (2-4')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 7:17:00 PM
TPH (Oil Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 7:17:00 PM
Surr: 4-Terphenyl-d14	80.0	33 - 152		%REC	10	1/9/2015 7:17:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 2:34:41 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	1.59	0.99		mg/Kg-dry	1	1/9/2015 9:57:20 PM
Barium	92.0	0.99		mg/Kg-dry	1	1/9/2015 9:57:20 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 9:57:20 PM
Chromium	13.9	0.99		mg/Kg-dry	1	1/9/2015 9:57:20 PM
Lead	14.6	0.99		mg/Kg-dry	1	1/9/2015 9:57:20 PM
Selenium	< 1.98	1.98		mg/Kg-dry	1	1/9/2015 9:57:20 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 9:57:20 PM
Zinc	59.7	0.99		mg/Kg-dry	1	1/9/2015 9:57:20 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	158	47		mg/Kg-dry	1	1/9/2015 10:55:48 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





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# Analytical Report

(consolidated)

WO#: 15010126

Date Reported: 1/14/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 2:30:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-007 **Matrix:** SOIL  
**Client Sample ID** WL-2 (8-10')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Cation Exchange Capacity	50.8	0.1		meq/100g	1	1/12/2015 2:22:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
				<b>SW9253</b>		Analyst: <b>SGP</b>
Chlorides	4,920	578		mg/Kg-dry	50	1/12/2015 8:24:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>IAI</b>
Electrical Conductivity	14.0	0.10	*	mmhos/cm	1	1/9/2015 11:30:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>MMT</b>
Exchangeable Sodium %	13.3	0.1		%	1	1/12/2015 2:22:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
				<b>SW9071B</b>		Analyst: <b>MMT</b>
HEM, Oil & Grease	0.05	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
				<b>LDNR 29-B</b>		Analyst: <b>GXT</b>
pH Measurement	7.59	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
				<b>LDNR 29-B</b>		Analyst: <b>MMT</b>
Percent Moisture	49.6	1.0		wt%	1	1/6/2015 1:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
				<b>LDNR 29-B</b>	<b>LDNR 29-B</b>	Analyst: <b>STS</b>
Sodium Adsorption Ratio	16.3	0.100	*		1	1/9/2015
Soluble Calcium	16.8	1.00		meq/L	1	1/9/2015
Soluble Magnesium	33.8	1.00		meq/L	1	1/9/2015
Soluble Sodium	81.9	1.00		meq/L	1	1/9/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010126**

Date Reported: **1/14/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 2:30:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-007 **Matrix:** SOIL  
**Client Sample ID** WL-2 (8-10')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 7:33:00 PM
TPH (Oil Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 7:33:00 PM
Surr: 4-Terphenyl-d14	81.9	33 - 152		%REC	10	1/9/2015 7:33:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 2:37:04 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	6.01	0.99		mg/Kg-dry	1	1/9/2015 10:00:56 PM
Barium	87.4	0.99		mg/Kg-dry	1	1/9/2015 10:00:56 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 10:00:56 PM
Chromium	15.3	0.99		mg/Kg-dry	1	1/9/2015 10:00:56 PM
Lead	15.3	0.99		mg/Kg-dry	1	1/9/2015 10:00:56 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/9/2015 10:00:56 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 10:00:56 PM
Zinc	74.7	0.99		mg/Kg-dry	1	1/9/2015 10:00:56 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	153	47		mg/Kg-dry	1	1/9/2015 10:59:12 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 15010126

Date Reported: 1/14/2015

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 2:45:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-008 **Matrix:** SOIL  
**Client Sample ID** WL-2 (14-16')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	28.7	0.1		meq/100g	1	1/12/2015 2:22:00 PM
<b>SOLUBLE CHLORIDE BY SW9253</b>						
Chlorides	1,240	159		mg/Kg-dry	25	1/12/2015 8:24:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	6.91	0.10	*	mmhos/cm	1	1/9/2015 11:30:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	8.4	0.1		%	1	1/12/2015 2:22:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	< 0.05	0.05		% dry wt	1	1/9/2015 3:00:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
pH Measurement	6.97	1.68		S.U.	1	1/12/2015 3:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
Percent Moisture	28.8	1.0		wt%	1	1/6/2015 1:30:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	9.86	0.100			1	1/9/2015
Soluble Calcium	8.36	1.00		meq/L	1	1/9/2015
Soluble Magnesium	17.1	1.00		meq/L	1	1/9/2015
Soluble Sodium	35.2	1.00		meq/L	1	1/9/2015

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **15010126**

Date Reported: **1/14/2015**

**CLIENT:** ICON Environmental Services **Collection Date:** 1/5/2015 2:45:00 PM  
**Project:** V.P.S.B East White Lake 9077-041-0800  
**Lab ID:** 15010126-008 **Matrix:** SOIL  
**Client Sample ID** WL-2 (14-16')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 7:50:00 PM
TPH (Oil Range)	< 50.0	50.0		mg/Kg	10	1/9/2015 7:50:00 PM
Surr: 4-Terphenyl-d14	70.5	33 - 152		%REC	10	1/9/2015 7:50:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>KML</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	1/12/2015 2:39:27 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.13	0.99		mg/Kg-dry	1	1/9/2015 10:04:26 PM
Barium	160	0.99		mg/Kg-dry	1	1/9/2015 10:04:26 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 10:04:26 PM
Chromium	10.6	0.99		mg/Kg-dry	1	1/9/2015 10:04:26 PM
Lead	10.5	0.99		mg/Kg-dry	1	1/9/2015 10:04:26 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	1/9/2015 10:04:26 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	1/9/2015 10:04:26 PM
Zinc	21.3	0.99		mg/Kg-dry	1	1/9/2015 10:04:26 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	168	46		mg/Kg-dry	1	1/9/2015 11:02:35 PM

**Qualifiers:**

- |  |   |
|--|---|
| * Value exceeds Maximum Contaminant Level.           | B Analyte detected in the associated Method Blank |
| C Value is below Minimum Compound Limit.             | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded | M Matrix Interference                             |
| N Tentatively identified compounds                   | ND Not Detected at the Reporting Limit            |
| O RSD is greater than RSDlimit                       | P Second column confirmation exceeds              |
| PL Permit Limit                                      | R RPD outside accepted recovery limits            |
| RL Reporting Detection Limit                         | S Spike Recovery outside accepted recovery limits |



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** 13909

Sample ID	<b>15010126-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>ESP_S</b>	Units:	%	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40654</b>		
Client ID:	<b>WL-1 (0-2')</b>	Batch ID:	<b>13909</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975449</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Exchangeable Sodium %		12.5		0.1						12.8	2.4	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** 13910

Sample ID	14121385-041ADUP	SampType:	DUP	TestCode:	CEC	Units:	meq/100g	Prep Date:	1/7/2015	RunNo:	40653
Client ID:	ZZZZZZ	Batch ID:	13910	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	1/12/2015	SeqNo:	975435
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		51.8		0.1						49.3	5.1 20

Sample ID	15010126-001ADUP	SampType:	DUP	TestCode:	CEC	Units:	meq/100g	Prep Date:	1/8/2015	RunNo:	40653
Client ID:	WL-1 (0-2')	Batch ID:	13910	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	1/12/2015	SeqNo:	975438
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		64.0		0.1						63.8	0.3 20

Sample ID	LCS-13910	SampType:	LCS	TestCode:	CEC	Units:	meq/100g	Prep Date:	1/7/2015	RunNo:	40653
Client ID:	LCSS	Batch ID:	13910	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	1/12/2015	SeqNo:	975446
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		22.8		0.1	25.0	0	91.1	76	124		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** 13912

Sample ID	15010256-010AMS-	SampType:	MS	TestCode:	8015_DO_S	Units:	mg/Kg	Prep Date:	1/8/2015	RunNo:	40631			
Client ID:	ZZZZZZ	Batch ID:	13912	TestNo:	SW8015B	SW3550C		Analysis Date:	1/9/2015	SeqNo:	974844			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	496	100	100.0	430.2	65.6	14.5	174						
Surr: 4-Terphenyl-d14	1.59		3.330		47.8	33	152						

Sample ID	15010256-010AMSD	SampType:	MSD	TestCode:	8015_DO_S	Units:	mg/Kg	Prep Date:	1/8/2015	RunNo:	40631			
Client ID:	ZZZZZZ	Batch ID:	13912	TestNo:	SW8015B	SW3550C		Analysis Date:	1/9/2015	SeqNo:	974845			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	587	100	100.0	430.2	157	14.5	174	495.8	16.8	48.8
Surr: 4-Terphenyl-d14	1.89		3.330		56.6	33	152		0	40

Sample ID	LCS-D-13912	SampType:	LCS	TestCode:	8015_DO_S	Units:	mg/Kg	Prep Date:	1/8/2015	RunNo:	40631			
Client ID:	LCSS	Batch ID:	13912	TestNo:	SW8015B	SW3550C		Analysis Date:	1/9/2015	SeqNo:	974848			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	83.3	10.0	100.0	0	83.3	63.4	109			
Surr: 4-Terphenyl-d14	2.74		3.330		82.3	33	152			

Sample ID	LCSD-D-13912	SampType:	LCSD	TestCode:	8015_DO_S	Units:	mg/Kg	Prep Date:	1/8/2015	RunNo:	40631			
Client ID:	LCSS02	Batch ID:	13912	TestNo:	SW8015B	SW3550C		Analysis Date:	1/9/2015	SeqNo:	974849			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	92.6	10.0	100.0	0	92.6	63.4	109	83.32	10.5	17.2
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**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** 13912

Sample ID	<b>LCSD-D-13912</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974849</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 4-Terphenyl-d14      3.11      3.330      93.4      33      152      0      40

Sample ID	<b>LCSD-M-13912</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974850</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)      103      10.0      100.0      0      103      63.9      120      94.60      8.69      16.6  
 Surr: 4-Terphenyl-d14      3.10      3.330      93.1      33      152      0      40

Sample ID	<b>LCS-M-13912</b>	SampType:	<b>LCS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>LCSS</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974851</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)      94.6      10.0      100.0      0      94.6      63.9      120  
 Surr: 4-Terphenyl-d14      2.93      3.330      87.9      33      152

Sample ID	<b>MB-13912</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974852</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)      < 5.00      5.00  
 TPH (Oil Range)      < 5.00      5.00

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				





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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** 13912

Sample ID	<b>MB-13912</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974852</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 4-Terphenyl-d14      3.02      3.330      90.8      33      152

Sample ID	<b>15010256-010AMS-</b>	SampType:	<b>MS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974853</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)      585      100      100.0      544.8      39.7      23.4      123  
 Surr: 4-Terphenyl-d14      2.41      3.330      72.4      33      152

Sample ID	<b>15010256-010AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40631</b>			
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13912</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>974854</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)      484      100      100.0      544.8      -61.0      23.4      123      584.5      18.9      35.6      S  
 Surr: 4-Terphenyl-d14      2.04      3.330      61.4      33      152      0      40

**NOTES:**  
 S - Spike recovery fails outside of recovery limits. The method is in control as indicated by the LCS/LCSD. The sample matrix spike recovery passed the acceptance criteria.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
	ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** 13923

Sample ID	<b>MB-13923</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40640</b>		
Client ID:	<b>PBS</b>	Batch ID:	<b>13923</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975059</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		< 1.00		1.00									
Barium		< 1.00		1.00									
Cadmium		< 0.50		0.50									
Chromium		< 1.00		1.00									
Lead		< 1.00		1.00									
Selenium		< 2.00		2.00									
Silver		< 0.50		0.50									
Zinc		< 1.00		1.00									

Sample ID	<b>LCS-13923</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40640</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>13923</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975060</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		51.6		1.00	50.00	0	103	80	120				
Barium		50.4		1.00	50.00	0	101	80	120				
Cadmium		50.4		0.50	50.00	0	101	80	120				
Chromium		49.2		1.00	50.00	0	98.5	80	120				
Lead		50.8		1.00	50.00	0	102	80	120				
Selenium		52.6		2.00	50.00	0	105	80	120				
Silver		25.2		0.50	25.00	0	101	80	120				
Zinc		51.9		1.00	50.00	0	104	80	120				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** 13923

Sample ID	<b>LCSD-13923</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40640</b>											
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13923</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975061</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual
Arsenic		52.5		1.00		50.00		0		105		80		120		51.58		1.81		20		
Barium		50.7		1.00		50.00		0		101		80		120		50.40		0.49		20		
Cadmium		50.7		0.50		50.00		0		101		80		120		50.38		0.61		20		
Chromium		49.6		1.00		50.00		0		99.1		80		120		49.25		0.63		20		
Lead		51.1		1.00		50.00		0		102		80		120		50.81		0.51		20		
Selenium		52.9		2.00		50.00		0		106		80		120		52.56		0.63		20		
Silver		25.4		0.50		25.00		0		102		80		120		25.23		0.63		20		
Zinc		52.3		1.00		50.00		0		105		80		120		51.94		0.65		20		

Sample ID	<b>15010126-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40640</b>											
Client ID:	<b>WL-1 (0-2')</b>	Batch ID:	<b>13923</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975063</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual
Arsenic		58.0		0.99		49.72		3.41		110		75		125								
Barium		364		0.99		49.72		319.3		89.6		75		125								
Cadmium		50.8		0.50		49.72		0.58		101		75		125								
Chromium		64.9		0.99		49.72		14.94		100		75		125								
Lead		61.6		0.99		49.72		12.46		98.9		75		125								
Selenium		44.9		1.99		49.72		0		90.4		75		125								
Silver		20.8		0.50		24.86		0		83.6		75		125								
Zinc		95.6		0.99		49.72		45.16		101		75		125								

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** 13923

Sample ID	<b>15010126-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40640</b>
Client ID:	<b>WL-1 (0-2')</b>	Batch ID:	<b>13923</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975064</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	59.0	0.99	49.68	3.41	112	75	125	57.98	1.75	20	
Barium	365	0.99	49.68	319.3	91.1	75	125	363.8	0.20	20	
Cadmium	51.3	0.50	49.68	0.58	102	75	125	50.81	0.90	20	
Chromium	65.3	0.99	49.68	14.94	101	75	125	64.90	0.66	20	
Lead	62.2	0.99	49.68	12.46	100	75	125	61.61	0.88	20	
Selenium	45.8	1.99	49.68	0	92.3	75	125	44.93	1.99	20	
Silver	21.1	0.50	24.84	0	85.0	75	125	20.79	1.50	20	
Zinc	96.2	0.99	49.68	45.16	103	75	125	95.57	0.63	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** 13924

Sample ID	<b>MB-13924</b>	SampType:	<b>MBLK</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40640</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13924</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975075</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

True Total Barium < 50 50

Sample ID	<b>LCS-13924</b>	SampType:	<b>LCS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40640</b>			
Client ID:	<b>LCSS</b>	Batch ID:	<b>13924</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975076</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

True Total Barium 4,740 50 5,000 0 95 75 125

Sample ID	<b>LCSD-13924</b>	SampType:	<b>LCSD</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40640</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13924</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975077</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

True Total Barium 4,750 50 5,000 0 95 75 125 4,736 0 20

Sample ID	<b>14121385-034AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40640</b>			
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13924</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975079</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

True Total Barium 5,000 47 4,673 353 99 75 125

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** 13924

Sample ID	<b>14121385-034AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40640</b>		
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13924</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975082</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium		4,940		47	4,673	353	98	75	125	4,995	1	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** 13934

Sample ID	<b>15010066-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>SAR_S</b>	Units:		Prep Date:	<b>1/8/2015</b>	RunNo:	<b>40599</b>		
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13934</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>973882</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium Adsorption Ratio		1.07		0.100						1.034	3.48	20	
Soluble Calcium		13.8		1.00						13.88	0.396	20	
Soluble Magnesium		4.42		1.00						4.432	0.372	20	
Soluble Sodium		3.23		1.00						3.129	3.28	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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 Website: [www.element.com](http://www.element.com)

# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** 13940

Sample ID	<b>MB-13940</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40659</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13940</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975714</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Mercury		< 0.10		0.10							

Sample ID	<b>LCS-13940</b>	SampType:	<b>LCS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40659</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13940</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975715</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Mercury		0.89		0.10	0.83	0	107	80	120		

Sample ID	<b>LCSD-13940</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40659</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13940</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975716</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Mercury		0.93		0.10	0.83	0	112	80	120	0.89	4.35 20

Sample ID	<b>15010126-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40659</b>
Client ID:	<b>WL-1 (0-2')</b>	Batch ID:	<b>13940</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975718</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Mercury		1.43		0.10	0.83	0.62	98.6	75	125		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** 13940

Sample ID	<b>15010126-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>1/9/2015</b>	RunNo:	<b>40659</b>		
Client ID:	<b>WL-1 (0-2')</b>	Batch ID:	<b>13940</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975719</b>				
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		1.39		0.10	0.82	0.62	94.6	75	125	1.43	2.95	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** R40585

Sample ID	<b>MB-R40585</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>40585</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R40585</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>973694</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity < 0.10 0.10

Sample ID	<b>R40585LCS1</b>	SampType:	<b>LCS1</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>40585</b>
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R40585</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>973695</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity 0.48 0.10 0.47 0 102 89.87 110.12

Sample ID	<b>R40585LCS2</b>	SampType:	<b>LCS2</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>40585</b>
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R40585</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>973696</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity 52.9 0.10 53.00 0 99.8 90 110

Sample ID	<b>15010126-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>40585</b>
Client ID:	<b>WL-1 (0-2')</b>	Batch ID:	<b>R40585</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>973698</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity 5.66 0.10 5.34 5.82 20 \*

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** R40592

Sample ID	<b>MB-R40592</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40592</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R40592</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975323</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

< 0.05 0.05

Sample ID	<b>LCS-R40592</b>	SampType:	<b>LCS</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40592</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R40592</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975324</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

0.25 0.05 0.20 0 123 70 130

Sample ID	<b>LCSD-R40592</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40592</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R40592</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975325</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

0.25 0.05 0.20 0 125 70 130 0.25 1.62 40

Sample ID	<b>15010126-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40592</b>
Client ID:	<b>WL-1 (0-2')</b>	Batch ID:	<b>R40592</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975326</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

1.84 0.05 0.35 0.97 245 70 130 S

**NOTES:**  
 S - Spike recovery indicates matrix interference. The method is in control as indicated by the Lab Control Sample.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
	ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** R40592

Sample ID	<b>15010126-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>40592</b>
Client ID:	<b>WL-1 (0-2')</b>	Batch ID:	<b>R40592</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>1/9/2015</b>	SeqNo:	<b>975327</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
HEM, Oil & Grease		0.90		0.05						0.97	7.90 40

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** R40607

Sample ID	15010066-001ADUP	SampType:	DUP	TestCode:	PMOIST	Units:	wt%	Prep Date:		RunNo:	40607
Client ID:	ZZZZZZ	Batch ID:	R40607	TestNo:	LDNR 29-B			Analysis Date:	1/5/2015	SeqNo:	974054
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Percent Moisture		79.5		1.0						79.0	0.5 20

Sample ID	15010126-001ADUP	SampType:	DUP	TestCode:	PMOIST	Units:	wt%	Prep Date:		RunNo:	40607
Client ID:	WL-1 (0-2')	Batch ID:	R40607	TestNo:	LDNR 29-B			Analysis Date:	1/6/2015	SeqNo:	974056
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Percent Moisture		42.6		1.0						43.6	2.2 20

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** R40624

Sample ID	<b>MB-R40624</b>	SampType:	<b>MBLK</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40624</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R40624</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975178</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Chlorides	< 10	10									
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Sample ID	<b>LCSD-R40624</b>	SampType:	<b>LCSD</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40624</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R40624</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975179</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Chlorides	110	10	100	0	110	80	120	106	3	20	
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Sample ID	<b>LCS-R40624</b>	SampType:	<b>LCS</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40624</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R40624</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975180</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Chlorides	106	10	100	0	106	80	120				
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Sample ID	<b>15010126-003AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40624</b>
Client ID:	<b>WL-1 (6-8')</b>	Batch ID:	<b>R40624</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975183</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Chlorides	23,600	1,170	11,680	11,200	107	80	120				
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**Qualifiers:**

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** R40624

Sample ID	<b>15010126-003AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>CL_S_9253</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:		RunNo:	<b>40624</b>											
Client ID:	<b>WL-1 (6-8')</b>	Batch ID:	<b>R40624</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975185</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual
Chlorides		22,800		1,170		11,680		11,200		99		80		120		23,630		4		20		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 15010126  
 14-Jan-15

**Client:** ICON Environmental Services  
**Project:** V.P.S.B East White Lake 9077-041-0800

**BatchID:** R40656

Sample ID	<b>LCS-R40656</b>	SampType:	<b>LCS</b>	TestCode:	<b>PH_S</b>	Units:	<b>S.U.</b>	Prep Date:		RunNo:	<b>40656</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R40656</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975479</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

pH Measurement 7.10 1.68 7.00 0 101 97.14 102.86

Sample ID	<b>15010126-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>PH_S</b>	Units:	<b>S.U.</b>	Prep Date:		RunNo:	<b>40656</b>
Client ID:	<b>WL-1 (0-2')</b>	Batch ID:	<b>R40656</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>1/12/2015</b>	SeqNo:	<b>975483</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

pH Measurement 4.87 1.68 4.87 0 20 C

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |








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## Sample Log-In Check List

Client Name: **ICON\_ENV** Work Order Number: **15010126** RcptNo: **1**

Logged by:	<b>Heather Delay</b>	<b>1/6/2015 11:40:00 AM</b>	
Completed By:	<b>Heather Delay</b>	<b>1/6/2015 1:04:00 PM</b>	
Reviewed By:	<b>Caitlin Duplantis</b>	<b>1/6/2015 4:25:37 PM</b>	

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Element

### Log In

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 Custody seals intact on shipping container/cooler? Yes  No  Not Present   
 No. Seal Date: Signed By:  
 5. Was an attempt made to cool the samples? Yes  No  NA   
 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
 7. Sample(s) in proper container(s)? Yes  No   
 8. Sufficient sample volume for indicated test(s)? Yes  No   
 9. Are samples (except VOA and ONG) properly preserved? Yes  No   
 10. Was preservative added to bottles? Yes  No  NA   
 11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  No VOA Vials   
 12. Were any sample containers received broken? Yes  No   
 13. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)  
 14. Are matrices correctly identified on Chain of Custody? Yes  No   
 15. Is it clear what analyses were requested? Yes  No   
 16. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

### Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.3	Good	Not Present			



# Chain of Custody

Laboratory Number: 15010126

Company Name: **ICDN**  
 Contact Name: **Greg Miller**  
 Address: **Port Allen, LA**  
 City, State Zip: **2253448490**  
 Phone Number: **EXT.**  
 Fax Number:  
 E-mail Address:

Client Information: **SAWF**  
 Billing Information:  
 PO Number:  
 Quoter Number:  
 Required QC Level:  
 Bill Monthly:  Yes  No  
 Shipping Method: **UPS / FedEx / Airborne**  
 DHL / Element / **Matrix** / Mail

Project Name/Number: **VP.SB. East White Lake**  
 9077-04-0800  
 Sampler's Signature: **D.L.R.**

Matrix Code:  
 DW = Drinking Water  
 WW = Waste Water  
 GW = Ground Water  
 AQ = Aqueous  
 OT = Other  
 SL = Sludge  
 SOL = Solid  
 SO = Soil  
 O = Oil  
 F = Food  
 SW = Swab  
 NG = Natural Gas  
 NGL = Natural Gas Liquid  
 PW = Produced Water  
 CF = Completion Fluid

Sample ID/Description	Which Regulations Apply:		Turn Time <input type="checkbox"/> Standard <input checked="" type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> Other	(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container		Pres. HCl, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , NaOH, Na <sub>2</sub> SO <sub>4</sub>	Requested Tests			Comments	
	Collection Information				Type P=Plastic, V=Vial	Quantity		G=Glass, V=Vial	Requested Tests			
	Date	Time							Matrix	TPH		DDO
WL-1 (0-2')	1-5-15	1310	SO		G	1	None	X	X	X	All Dry weight Turn Time ASAP	
WL-1 (2-4')		1216										
WL-1 (6-8')		1226										
WL-1 (9-13')		1240										
WL-2 (0-2')		1405										
WL-2 (2-4')		1410										
WL-3 (8-10')		1430										
WL-2 (14-16')		1445										

Relinquished by	Date/Time	Received by	Date/Time	Field Notes
<i>[Signature]</i>	1/6/15 1030	<i>[Signature]</i>	1/6/15 1030	Received at lab on ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 5.30
<i>[Signature]</i>	1/6/15 1140	<i>[Signature]</i>	1-6-15 11:40	

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

- 8361 Innovation Drive, Suite 115  
 Daleville, IN 47201-6211 USA  
 P 765-378-4103 F 765-378-4108
- 829 Washington St, Suite 300  
 Columbus, IN 47201-6211 USA  
 P 812-375-6531 F 812-375-6731
- 2121 East Washington Boulevard  
 Fort Wayne, IN 46803-1328 USA  
 P 260-471-7000 F 260-471-7777
- 560 South Zimmer Road  
 Warsaw, IN 46985-2368 USA  
 P 574-267-3393 F 574-268-6588
- 3371 Cleveland Road, Suite 100A  
 South Bend, IN 46628-6780 USA  
 P 574-277-0707 F 574-275-5899
- 2417 W. Pinhook Rd  
 Lafayette, LA 70508-3344 USA  
 P 337-235-0483 F 337-233-6540



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Website: [www.element.com](http://www.element.com)

December 29, 2014

Greg Miller  
ICON Environmental Services  
2049 Commercial Drive  
Port Allen, LA 70767  
TEL: (225) 344-8490  
FAX (225) 344-6654

RE: VPSB East White Lake 9077-041-0800

Order No.: 14120322

Dear Greg Miller:

Element Materials Technology Lafayette, LLC received 1 sample(s) on 12/5/2014 for the analyses presented in the following report.

In accordance with your instructions Element Lafayette conducted the analysis shown on the following pages on samples submitted by your company. The results related only to the items tested. Unless otherwise noted, all analyses were conducted using EPA approved methodologies and all test results meet all requirements of TNI. All relevant sampling information is on the attached Chain-of-Custody form.

All soil data, except for 29-B, are on a wet-weight basis unless otherwise indicated in the units field as –dry.

LELAP Certification No.: 01997. TCEQ Certification No.: T104704261-14-6. A scope of accredited parameters is available upon request. A "#" by the test method or analyte indicates this parameter is outside the scope of accreditation.

Estimated uncertainty is available upon request. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in blue ink that reads 'Annie Reedy'.

Annie Reedy  
Manager, Analytical Services  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344



Element Materials Technology Lafayette  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344  
TEL: (337) 235-0483 FAX: (337) 233-6540  
Website: [www.element.com](http://www.element.com)

## Case Narrative

WO#: 14120322  
Date: 12/29/2014

---

**CLIENT:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

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Unless specified by the client, a duplicate or MS/MSD, wherever applicable, is randomly selected and analyzed from each analytical batch provided sample volume is sufficient. The sample chosen for duplicate or MS/MSD may or may not be a sample submitted in this workorder. A method blank and/or a lab control sample (LCS)/lab control sample duplicate (LCSD), wherever applicable, are processed as a quality control check for each analytical batch. When the matrix QC data is not available due to insufficient sample volume or when the results indicate possible matrix effect, the validity of the batch is determined by the method blank and LCS/LCSD.

The results of the laboratory internal quality control data are provided in the QC Summary Report section of the report for your review. Laboratory-related QC exceptions that may impact the validity of data are discussed in the case narrative. Sample-related QC exceptions are flagged either in the results page(s) or in the QC report page(s). End users should consider QC exceptions when evaluating sample data against data quality objectives.

Any other exceptions associated with this report will be footnoted in the results page(s) or the QC summary page(s).



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# Analytical Report

(consolidated)

WO#: 14120322

Date Reported: 12/29/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 12/1/2014 10:15:00 AM  
**Project:** VPSB East White Lake 9077-041-0800  
**Lab ID:** 14120322-001 **Matrix:** SOIL  
**Client Sample ID** NE Area Comp

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	< 50.0	50.0		mg/Kg	10	12/17/2014 9:08:00 PM
TPH (Oil Range)	111	100		mg/Kg	10	12/17/2014 9:08:00 PM
Surr: 4-Terphenyl-d14	91.5	33 - 152		%REC	10	12/17/2014 9:08:00 PM
<b>29B METALS</b>					<b>29B/SW7471A</b>	Analyst: <b>KXL</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	12/26/2014 1:46:07 PM
<b>29B METALS</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.85	0.99		mg/Kg-dry	1	12/23/2014 3:35:13 PM
Barium	430	0.99		mg/Kg-dry	1	12/23/2014 3:35:13 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	12/23/2014 3:35:13 PM
Chromium	13.0	0.99		mg/Kg-dry	1	12/23/2014 3:35:13 PM
Lead	14.1	0.99		mg/Kg-dry	1	12/23/2014 3:35:13 PM
Zinc	64.8	0.99		mg/Kg-dry	1	12/23/2014 3:35:13 PM
<b>29B METALS</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	774	46		mg/Kg-dry	1	12/23/2014 1:56:21 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



Element Materials Technology Lafayette  
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 Lafayette, LA 70508-3344  
 TEL: (337) 235-0483 FAX: (337) 233-6540  
 Website: www.element.com

# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13627

Sample ID	<b>MB-13627</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_TCLP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>12/9/2014</b>	RunNo:	<b>39847</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>13627</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>12/11/2014</b>	SeqNo:	<b>954455</b>					
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		< 0.010		0.010												
Barium		< 0.010		0.010												
Cadmium		< 0.005		0.005												
Chromium		< 0.010		0.010												
Lead		< 0.010		0.010												

Sample ID	<b>LCS-13627</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_TCLP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>12/9/2014</b>	RunNo:	<b>39847</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>13627</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>12/11/2014</b>	SeqNo:	<b>954459</b>					
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		0.557		0.010		0.500		0		111	80	120				
Barium		0.559		0.010		0.500		0		112	80	120				
Cadmium		0.558		0.005		0.500		0		112	80	120				
Chromium		0.549		0.010		0.500		0		110	80	120				
Lead		0.540		0.010		0.500		0		108	80	120				

Sample ID	<b>LCSD-13627</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_TCLP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>12/9/2014</b>	RunNo:	<b>39847</b>					
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13627</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>12/11/2014</b>	SeqNo:	<b>954460</b>					
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		0.550		0.010		0.500		0		110	80	120	0.557	1.25	20	
Barium		0.560		0.010		0.500		0		112	80	120	0.559	0.215	20	
Cadmium		0.560		0.005		0.500		0		112	80	120	0.558	0.322	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13627

Sample ID	<b>LCSD-13627</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_TCLP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>12/9/2014</b>	RunNo:	<b>39847</b>					
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13627</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>12/11/2014</b>	SeqNo:	<b>954460</b>					
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium		0.549		0.010		0.500		0		110	80	120	0.549	0.055	20	
Lead		0.545		0.010		0.500		0		109	80	120	0.540	0.793	20	

Sample ID	<b>14120396-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_TCLP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>12/9/2014</b>	RunNo:	<b>39847</b>					
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13627</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>12/11/2014</b>	SeqNo:	<b>954462</b>					
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		0.597		0.010		0.500		0.029		114	75	125				
Barium		0.664		0.010		0.500		0.141		105	75	125				
Cadmium		0.855		0.005		0.500		0.295		112	75	125				
Chromium		0.564		0.010		0.500		0.028		107	75	125				
Lead		0.528		0.010		0.500		0.025		101	75	125				

Sample ID	<b>14120396-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_TCLP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>12/9/2014</b>	RunNo:	<b>39847</b>					
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13627</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>12/11/2014</b>	SeqNo:	<b>954463</b>					
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		0.622		0.010		0.500		0.029		119	75	125	0.597	4.23	20	
Barium		0.684		0.010		0.500		0.141		109	75	125	0.664	3.06	20	
Cadmium		0.887		0.005		0.500		0.295		118	75	125	0.855	3.63	20	
Chromium		0.590		0.010		0.500		0.028		112	75	125	0.564	4.58	20	
Lead		0.552		0.010		0.500		0.025		105	75	125	0.528	4.44	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



Element Materials Technology Lafayette  
 2417 W. Pinhook Road  
 Lafayette, LA 70508-3344  
 TEL: (337) 235-0483 FAX: (337) 233-6540  
 Website: www.element.com

# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13649

Sample ID	<b>MB-13649</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HG_TCLP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>12/11/2014</b>	RunNo:	<b>39885</b>			
Client ID:	<b>PBW</b>	Batch ID:	<b>13649</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>12/11/2014</b>	SeqNo:	<b>955535</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		< 0.0002		0.0002										

Sample ID	<b>LCS-13649</b>	SampType:	<b>LCS</b>	TestCode:	<b>HG_TCLP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>12/11/2014</b>	RunNo:	<b>39885</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>13649</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>12/11/2014</b>	SeqNo:	<b>955536</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.0103		0.0002	0.0100	0		103	80	120				

Sample ID	<b>LCSD-13649</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HG_TCLP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>12/11/2014</b>	RunNo:	<b>39885</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13649</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>12/11/2014</b>	SeqNo:	<b>955537</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.0101		0.0002	0.0100	0		101	80	120	0.0103	2.66	20	

Sample ID	<b>14120394-021AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HG_TCLP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>12/11/2014</b>	RunNo:	<b>39885</b>			
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13649</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>12/11/2014</b>	SeqNo:	<b>955539</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.125		0.0060	0.3000	0		41.6	75	125				S

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13649

Sample ID	<b>14120394-021AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>HG_TCLP</b>	Units:	<b>mg/L</b>	Prep Date:	<b>12/11/2014</b>	RunNo:	<b>39885</b>											
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13649</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>12/11/2014</b>	SeqNo:	<b>955540</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual
Mercury		0.108		0.0060		0.3000		0		36.0		75		125		0.1247		14.4		20		S

**NOTES:**  
 MS/MSD recoveries were outside of QC limits. PDS/PDS recoveries were within the acceptance limits. The method is in control as indicated by the Lab Control Sample(s).

Sample ID	<b>14120394-021APDS</b>	SampType:	<b>PDS</b>	TestCode:	<b>HG_TCLP</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>39885</b>											
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13649</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>12/12/2014</b>	SeqNo:	<b>955630</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual
Mercury		0.356		0.0060		0.395		0		90.0		80		120								

Sample ID	<b>14120394-021APDS</b>	SampType:	<b>PDS</b>	TestCode:	<b>HG_TCLP</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>39885</b>											
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13649</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>12/12/2014</b>	SeqNo:	<b>955631</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual
Mercury		0.350		0.0060		0.3951		0		88.5		80		120		0.3557		1.68		20		

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



Element Materials Technology Lafayette  
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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13691

Sample ID	14120300-032BMS-	SampType: MS	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 12/15/2014	RunNo: 40066					
Client ID:	ZZZZZZ	Batch ID: 13691	TestNo: SW8015B	SW3550C	Analysis Date: 12/17/2014	SeqNo: 961158					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	727	100	100.0	445.3	282	23.4	123				S
Surr: 4-Terphenyl-d14	1.70		3.330		51.1	33	152				

**NOTES:**

S - Analyte concentration in native sample was too high for accurate spike recovery(ies). The method is in control as indicated by the LCS/LCSD.

Sample ID	14120300-032BMSD	SampType: MSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 12/15/2014	RunNo: 40066					
Client ID:	ZZZZZZ	Batch ID: 13691	TestNo: SW8015B	SW3550C	Analysis Date: 12/17/2014	SeqNo: 961159					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	401	100	100.0	445.3	-43.9	23.4	123	727.4	57.8	35.6	RS
Surr: 4-Terphenyl-d14	1.58		3.330		47.4	33	152		0	40	

Sample ID	14120323-006AMS-	SampType: MS	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 12/15/2014	RunNo: 40066					
Client ID:	ZZZZZZ	Batch ID: 13691	TestNo: SW8015B	SW3550C	Analysis Date: 12/17/2014	SeqNo: 961166					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	92.1	10.0	100.0	15.09	77.0	14.5	174				
Surr: 4-Terphenyl-d14	1.77		3.330		53.2	33	152				

Sample ID	14120323-006AMSD	SampType: MSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 12/15/2014	RunNo: 40066					
Client ID:	ZZZZZZ	Batch ID: 13691	TestNo: SW8015B	SW3550C	Analysis Date: 12/17/2014	SeqNo: 961167					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
	ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13691

Sample ID	14120323-006AMSD	SampType:	MSD	TestCode:	8015_DO_S	Units:	mg/Kg	Prep Date:	12/15/2014	RunNo:	40066			
Client ID:	ZZZZZZ	Batch ID:	13691	TestNo:	SW8015B	SW3550C		Analysis Date:	12/17/2014	SeqNo:	961167			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	103	10.0	100.0	15.09	87.5	14.5	174	92.09	10.8	48.8
Surr: 4-Terphenyl-d14	2.64		3.330		79.2	33	152		0	40

Sample ID	LCS-D-13691	SampType:	LCS	TestCode:	8015_DO_S	Units:	mg/Kg	Prep Date:	12/15/2014	RunNo:	40066			
Client ID:	LCSS	Batch ID:	13691	TestNo:	SW8015B	SW3550C		Analysis Date:	12/17/2014	SeqNo:	961174			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	84.2	10.0	100.0	0	84.2	63.4	109
Surr: 4-Terphenyl-d14	2.18		3.330		65.5	33	152

Sample ID	LCSD-D-13691	SampType:	LCSD	TestCode:	8015_DO_S	Units:	mg/Kg	Prep Date:	12/15/2014	RunNo:	40066			
Client ID:	LCSS02	Batch ID:	13691	TestNo:	SW8015B	SW3550C		Analysis Date:	12/17/2014	SeqNo:	961175			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	86.4	10.0	100.0	0	86.4	63.4	109	84.17	2.57	17.2
Surr: 4-Terphenyl-d14	2.17		3.330		65.2	33	152		0	40

Sample ID	LCSD-M-13691	SampType:	LCSD	TestCode:	8015_DO_S	Units:	mg/Kg	Prep Date:	12/15/2014	RunNo:	40066			
Client ID:	LCSS02	Batch ID:	13691	TestNo:	SW8015B	SW3550C		Analysis Date:	12/17/2014	SeqNo:	961176			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	105	10.0	100.0	0	105	63.9	120	102.6	2.22	16.6
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**Qualifiers:**

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13691

Sample ID	<b>LCSD-M-13691</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/15/2014</b>	RunNo:	<b>40066</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13691</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/17/2014</b>	SeqNo:	<b>961176</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14		2.30			3.330			69.1	33	152		0	40	

Sample ID	<b>LCS-M-13691</b>	SampType:	<b>LCS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/15/2014</b>	RunNo:	<b>40066</b>			
Client ID:	<b>LCSS</b>	Batch ID:	<b>13691</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/17/2014</b>	SeqNo:	<b>961177</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)		103		10.0	100.0	0		103	63.9	120				
Surr: 4-Terphenyl-d14		2.24			3.330			67.3	33	152				

Sample ID	<b>MB-13691</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/15/2014</b>	RunNo:	<b>40066</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13691</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/17/2014</b>	SeqNo:	<b>961178</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)		< 5.00		5.00										
TPH (Oil Range)		< 5.00		5.00										
Surr: 4-Terphenyl-d14		2.18			3.330			65.6	33	152				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13728

Sample ID	<b>14120732-009AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/17/2014</b>	RunNo:	<b>40281</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13728</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>12/26/2014</b>	SeqNo:	<b>966375</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 0.91 0.10 0.83 0 110 75 125

Sample ID	<b>14120732-009AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/17/2014</b>	RunNo:	<b>40281</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13728</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>12/26/2014</b>	SeqNo:	<b>966375</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 0.91 0.10 0.83 0 110 75 125 0.91 0.40 20

Sample ID	<b>MB-13728</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/17/2014</b>	RunNo:	<b>40281</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13728</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>12/26/2014</b>	SeqNo:	<b>966400</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury < 0.10 0.10

Sample ID	<b>LCS-13728</b>	SampType:	<b>LCS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/17/2014</b>	RunNo:	<b>40281</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13728</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>12/26/2014</b>	SeqNo:	<b>966401</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 0.88 0.10 0.83 0 106 80 120

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13728

Sample ID	<b>LCSD-13728</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/17/2014</b>	RunNo:	<b>40281</b>		
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13728</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>12/26/2014</b>	SeqNo:	<b>966402</b>				
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.89		0.10	0.83	0	106	80	120	0.88	0.48	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13795

Sample ID	<b>MB-13795</b>	SampType:	<b>MBLK</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/23/2014</b>	RunNo:	<b>40247</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13795</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/23/2014</b>	SeqNo:	<b>965574</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		< 50		50							

Sample ID	<b>LCS-13795</b>	SampType:	<b>LCS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/23/2014</b>	RunNo:	<b>40247</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13795</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/23/2014</b>	SeqNo:	<b>965575</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		5,140		50	5,000	0	103	75	125		

Sample ID	<b>LCSD-13795</b>	SampType:	<b>LCSD</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/23/2014</b>	RunNo:	<b>40247</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13795</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/23/2014</b>	SeqNo:	<b>965576</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		5,140		50	5,000	0	103	75	125	5,145	0 20

Sample ID	<b>14120322-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/23/2014</b>	RunNo:	<b>40247</b>
Client ID:	<b>NE Area Comp</b>	Batch ID:	<b>13795</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/23/2014</b>	SeqNo:	<b>965578</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		5,380		46	4,554	774	101	75	125		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13795

Sample ID	14120322-001AMSD	SampType:	MSD	TestCode:	TTBA	Units:	mg/Kg-dry	Prep Date:	12/23/2014	RunNo:	40247		
Client ID:	NE Area Comp	Batch ID:	13795	TestNo:	LDNR 29-B			Analysis Date:	12/23/2014	SeqNo:	965581		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium		5,390		46	4,562	774	101	75	125	5,378	0	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
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# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13796

Sample ID	<b>MB-13796</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/23/2014</b>	RunNo:	<b>40256</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13796</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/23/2014</b>	SeqNo:	<b>965824</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		< 1.00		1.00										
Barium		< 1.00		1.00										
Cadmium		< 0.50		0.50										
Chromium		< 1.00		1.00										
Lead		< 1.00		1.00										
Zinc		< 1.00		1.00										

Sample ID	<b>LCS-13796</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/23/2014</b>	RunNo:	<b>40256</b>			
Client ID:	<b>LCSS</b>	Batch ID:	<b>13796</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/23/2014</b>	SeqNo:	<b>965825</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		53.4		1.00	50.00	0		107	80	120				
Barium		53.3		1.00	50.00	0		107	80	120				
Cadmium		52.8		0.50	50.00	0		106	80	120				
Chromium		52.6		1.00	50.00	0		105	80	120				
Lead		53.2		1.00	50.00	0		106	80	120				
Zinc		52.7		1.00	50.00	0		105	80	120				

Sample ID	<b>LCSD-13796</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/23/2014</b>	RunNo:	<b>40256</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13796</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/23/2014</b>	SeqNo:	<b>965826</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		54.6		1.00	50.00	0		109	80	120	53.45	2.17	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13796

Sample ID	<b>LCSD-13796</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/23/2014</b>	RunNo:	<b>40256</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13796</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/23/2014</b>	SeqNo:	<b>965826</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	53.2	1.00	50.00	0	106	80	120	53.27	0.06	20	
Cadmium	52.8	0.50	50.00	0	106	80	120	52.75	0.09	20	
Chromium	52.5	1.00	50.00	0	105	80	120	52.64	0.27	20	
Lead	53.1	1.00	50.00	0	106	80	120	53.16	0.08	20	
Zinc	52.7	1.00	50.00	0	105	80	120	52.67	0.11	20	

Sample ID	<b>14120322-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/23/2014</b>	RunNo:	<b>40256</b>
Client ID:	<b>NE Area Comp</b>	Batch ID:	<b>13796</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/23/2014</b>	SeqNo:	<b>965830</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	60.2	1.00	49.76	5.85	109	75	125				
Barium	481	1.00	49.76	429.7	103	75	125				
Cadmium	50.7	0.50	49.76	0.33	101	75	125				
Chromium	64.9	1.00	49.76	12.97	104	75	125				
Lead	63.2	1.00	49.76	14.11	98.7	75	125				
Zinc	116	1.00	49.76	64.78	102	75	125				

Sample ID	<b>14120322-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/23/2014</b>	RunNo:	<b>40256</b>
Client ID:	<b>NE Area Comp</b>	Batch ID:	<b>13796</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/23/2014</b>	SeqNo:	<b>965831</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	57.4	1.00	49.75	5.85	104	75	125	60.21	4.78	20	
Barium	474	1.00	49.75	429.7	89.1	75	125	480.9	1.45	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



Element Materials Technology Lafayette  
 2417 W. Pinhook Road  
 Lafayette, LA 70508-3344  
 TEL: (337) 235-0483 FAX: (337) 233-6540  
 Website: [www.element.com](http://www.element.com)

# QC SUMMARY REPORT

WO#: 14120322  
 30-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0800

**BatchID:** 13796

Sample ID	14120322-001AMSD	SampType:	MSD	TestCode:	6010_S_29B	Units:	mg/Kg-dry	Prep Date:	12/23/2014	RunNo:	40256
Client ID:	NE Area Comp	Batch ID:	13796	TestNo:	SW6010B	SW3050B		Analysis Date:	12/23/2014	SeqNo:	965831
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	49.9	0.50	49.75	0.33	99.7	75	125	50.73	1.57	20	
Chromium	64.0	1.00	49.75	12.97	103	75	125	64.87	1.37	20	
Lead	62.1	1.00	49.75	14.11	96.4	75	125	63.20	1.82	20	
Zinc	114	1.00	49.75	64.78	98.4	75	125	115.5	1.57	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# Sample Log-In Check List

Client Name: **ICON\_ENV**

Work Order Number: **14120322**

RcptNo: **1**

Logged by:	<b>Danielle Hollier</b>	<b>12/5/2014 4:25:00 PM</b>	<i>Danielle Hollier</i>
Completed By:	<b>Danielle Hollier</b>	<b>12/5/2014 4:51:56 PM</b>	<i>Danielle Hollier</i>
Reviewed By:	<b>Caitlin Duplantis</b>	<b>12/19/2014 8:24:03 AM</b>	<i>Caitlin Duplantis</i>

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA
4. Shipping container/cooler in good condition? Yes  No   
 Custody seals intact on shipping container/cooler? Yes  No  Not Present
- No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes  No  NA
6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
7. Sample(s) in proper container(s)? Yes  No
8. Sufficient sample volume for indicated test(s)? Yes  No
9. Are samples (except VOA and ONG) properly preserved? Yes  No
10. Was preservative added to bottles? Yes  No  NA
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  No VOA Vials
12. Were any sample containers received broken? Yes  No
13. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes  No
15. Is it clear what analyses were requested? Yes  No
16. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

### Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good	Not Present			



# Chain of Custody

Laboratory Number: 14120322

Client Information: **ICON** Billing Information: **SAME** PO Number: **VP5B East-White Lake** Matrix Code: **DW = Drinking Water**  
 Contact Name: **Greg W** Quote Number: **9077-041-0800** Sampler's Signature: **DEIRI** **WW = Waste Water**  
 Address: **2049 Commercial Dr.** Required QC Level: **Bill Monthly** **OT = Other**  
 City, State Zip: **Bart Allen LA 70167** **Ext:** **SL = Sludge SOL = Solid**  
 Phone Number: **225 344 6654** **Yes** **O = Oil SO = Soil**  
 Fax Number: **225 344 6654** **No** **F = Food SW = Swab**  
 E-mail: **greg@iconenv.com** Shipping Method: **UPS / FedEx / Airborne** **NG = Natural Gas**  
 Address: **3371 Cleveland Road, Suite 100A** **DHL / Element / Hand / Mail** **NGL = Natural Gas Liquid**  
**2417 W. Pinhook Rd** **CF = Completion Fluid**  
**Lafayette, LA**

Sample ID/Description	Which Regulations Apply: <input type="checkbox"/> RCRA <input type="checkbox"/> Drinking Water <input type="checkbox"/> POTW <input type="checkbox"/> Distribution <input type="checkbox"/> NPDES <input type="checkbox"/> Special <input type="checkbox"/> USDA/FDA <input type="checkbox"/> State <input type="checkbox"/> RECAP/RISC <input type="checkbox"/> Other	Turn Time <input checked="" type="checkbox"/> Standard <input checked="" type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> Other	Collection Information		Container Type Quantity	Pres. HCl, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> NaOH, Na <sub>2</sub> SO <sub>3</sub>	Requested Tests	Comments
			Date	Time				
NE Area Comp			12-1-14	10/15	G	NONE	X	Metals Dry Weight As, Ba, TTBa Cd, Cr, Pb, Hg, Zn.

Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
<i>[Signature]</i>	12/1/14 10:15	<i>[Signature]</i>	12/5/14 15:30	Received at lab on ice?
<i>[Signature]</i>	12/5/14 16:25	<i>[Signature]</i>	12/5/14 16:25	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 1.5°C

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. PD

9301 Innovation Drive, Suite 115 Daleville, IN 47334-0569 USA P 765-378-4103 F 765-378-4109

629 Washington St. Suite 300 Columbus, IN 47201-6231 USA P 812-375-0531 F 812-375-0731

2121 East Washington Boulevard Fort Wayne, IN 46803-1328 USA P 260-471-7000 F 260-471-7777

560 South Zimmer Road Warsaw, IN 46680-2368 USA P 574-267-3305 F 574-269-6569

3371 Cleveland Road, Suite 100A South Bend, IN 46628-9780 USA P 574-277-0707 F 574-273-6569

2417 W. Pinhook Rd Lafayette, LA 70508-3344 USA P 337-235-0483 F 337-233-6540



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December 11, 2014

Greg Miller  
ICON Environmental Services  
2049 Commercial Drive  
Port Allen, LA 70767  
TEL: (225) 344-8490  
FAX (225) 344-6654

RE: East White Lake 9077-041-0800

Order No.: 14111166

Dear Greg Miller:

Element Materials Technology Lafayette, LLC received 1 sample(s) on 11/26/2014 for the analyses presented in the following report.

In accordance with your instructions Element Lafayette conducted the analysis shown on the following pages on samples submitted by your company. The results related only to the items tested. Unless otherwise noted, all analyses were conducted using EPA approved methodologies and all test results meet all requirements of TNI. All relevant sampling information is on the attached Chain-of-Custody form.

All soil data, except for 29-B, are on a wet-weight basis unless otherwise indicated in the units field as –dry.

LELAP Certification No.: 01997. TCEQ Certification No.: T104704261-14-6. A scope of accredited parameters is available upon request. A "#" by the test method or analyte indicates this parameter is outside the scope of accreditation.

Estimated uncertainty is available upon request. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in blue ink that reads 'Annie Reedy'.

Annie Reedy  
Manager, Analytical Services  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344



Element Materials Technology Lafayette  
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Lafayette, LA 70508-3344  
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Website: [www.element.com](http://www.element.com)

## Case Narrative

WO#: 14111166  
Date: 12/11/2014

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**CLIENT:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

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Unless specified by the client, a duplicate or MS/MSD, wherever applicable, is randomly selected and analyzed from each analytical batch provided sample volume is sufficient. The sample chosen for duplicate or MS/MSD may or may not be a sample submitted in this workorder. A method blank and/or a lab control sample (LCS)/lab control sample duplicate (LCSD), wherever applicable, are processed as a quality control check for each analytical batch. When the matrix QC data is not available due to insufficient sample volume or when the results indicate possible matrix effect, the validity of the batch is determined by the method blank and LCS/LCSD.

Due to limited sample, Lab ID 14111166-001, was prepared for Leachate Chloride, using less than 100g of the soil (dry wt basis). The amount of the extraction fluid was proportionally reduced to yield a 1:4 sample to fluid ratio.

The results of the laboratory internal quality control data are provided in the QC Summary Report section of the report for your review. Laboratory-related QC exceptions that may impact the validity of data are discussed in the case narrative. Sample-related QC exceptions are flagged either in the results page(s) or in the QC report page(s). End users should consider QC exceptions when evaluating sample data against data quality objectives.

Any other exceptions associated with this report will be footnoted in the results page(s) or the QC summary page(s).



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# Analytical Report

(consolidated)

WO#: 14111166

Date Reported: 12/11/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 11/24/2014 9:45:00 AM  
**Project:** East White Lake 9077-041-0800  
**Lab ID:** 14111166-001 **Matrix:** SOIL  
**Client Sample ID** Canal Bott. Comp

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>29B SALTS</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	129	0.1		meq/100g	1	12/10/2014 1:27:00 PM
<b>29B SALTS</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	41.9	0.10	*	mmhos/cm	1	12/8/2014 11:42:00 AM
<b>29B SALTS</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	30.5	0.1	*	%	1	12/10/2014 1:27:00 PM
<b>PERCENT MOISTURE</b>						
Percent Moisture	78.5	1.0		wt%	1	12/1/2014 8:45:00 AM
<b>29B SALTS</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	131	0.100	*		1	12/9/2014
Soluble Calcium	13.8	1.00		meq/L	1	12/9/2014
Soluble Magnesium	6.47	1.00		meq/L	1	12/9/2014
Soluble Sodium	416	1.00		meq/L	1	12/9/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	77.0	10.0		mg/Kg	1	12/9/2014 11:30:00 PM
TPH (Oil Range)	51.5	10.0		mg/Kg	1	12/9/2014 11:30:00 PM
Surr: 4-Terphenyl-d14	48.9	33 - 152		%REC	1	12/9/2014 11:30:00 PM
<b>29B METALS</b>						
<b>MERCURY IN SOIL OR SLUDGE</b>						
Mercury	< 4.94	4.94		mg/Kg-dry	50	12/5/2014 1:36:01 PM

**NOTES:**

Note: Sample was analyzed at a dilution due to matrix interference. The reporting limit was raised accordingly.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





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# Analytical Report

(consolidated)

WO#: 14111166

Date Reported: 12/11/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 11/24/2014 9:45:00 AM  
**Project:** East White Lake 9077-041-0800  
**Lab ID:** 14111166-001 **Matrix:** SOIL  
**Client Sample ID** Canal Bott. Comp

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>29B METALS</b>					<b>SW6010B</b>	<b>SW3050B</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>						Analyst: <b>STS</b>
Arsenic	4.30	1.00		mg/Kg-dry	1	12/4/2014 12:47:41 AM
Barium	453	1.00		mg/Kg-dry	1	12/4/2014 12:47:41 AM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	12/4/2014 12:47:41 AM
Chromium	6.63	1.00		mg/Kg-dry	1	12/4/2014 12:47:41 AM
Lead	5.74	1.00		mg/Kg-dry	1	12/4/2014 12:47:41 AM
Selenium	< 1.99	1.99		mg/Kg-dry	1	12/4/2014 12:47:41 AM
Strontium	337	9.95		mg/Kg-dry	10	12/5/2014 7:39:26 PM
Zinc	21.9	1.00		mg/Kg-dry	1	12/4/2014 12:47:41 AM
<b>29B METALS</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	568	48		mg/Kg-dry	1	12/8/2014 5:29:36 PM
<b>LEACHATE CHLORIDES</b>					<b>29B/SW9253</b>	Analyst: <b>SXP</b>
Chlorides	3,730	500		mg/L	50	12/10/2014 10:53:00 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13545

Sample ID	<b>14111043-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39723</b>		
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951451</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Strontium 142 9.94 49.69 92.25 99.5 75 125

Sample ID	<b>14111043-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39723</b>		
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951452</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Strontium 142 9.94 49.68 92.25 99.9 75 125 141.7 0.13 20

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13545

Sample ID	<b>MB-13545</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/3/2014</b>	SeqNo:	<b>950136</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Arsenic		< 1.00		1.00							
Barium		< 1.00		1.00							
Cadmium		< 0.50		0.50							
Chromium		< 1.00		1.00							
Lead		< 1.00		1.00							
Selenium		< 2.00		2.00							
Strontium		< 1.00		1.00							
Zinc		< 1.00		1.00							

Sample ID	<b>LCS-13545</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/3/2014</b>	SeqNo:	<b>950137</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Arsenic		48.9		1.00	50.00	0	97.7	80	120		
Barium		48.4		1.00	50.00	0	96.8	80	120		
Cadmium		48.4		0.50	50.00	0	96.8	80	120		
Chromium		47.8		1.00	50.00	0	95.7	80	120		
Lead		47.1		1.00	50.00	0	94.2	80	120		
Selenium		48.8		2.00	50.00	0	97.7	80	120		
Strontium		51.8		1.00	50.00	0	104	80	120		
Zinc		47.8		1.00	50.00	0	95.7	80	120		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13545

Sample ID	<b>LCSD-13545</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>12/3/2014</b>	SeqNo:	<b>950141</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	48.8	1.00	50.00	0	97.5	80	120	48.87	0.25	20	
Barium	48.6	1.00	50.00	0	97.3	80	120	48.42	0.47	20	
Cadmium	48.6	0.50	50.00	0	97.1	80	120	48.39	0.37	20	
Chromium	48.1	1.00	50.00	0	96.2	80	120	47.84	0.54	20	
Lead	47.4	1.00	50.00	0	94.7	80	120	47.12	0.53	20	
Selenium	49.0	2.00	50.00	0	98.1	80	120	48.83	0.43	20	
Strontium	51.5	1.00	50.00	0	103	80	120	51.82	0.62	20	
Zinc	48.1	1.00	50.00	0	96.2	80	120	47.84	0.54	20	

Sample ID	<b>14111043-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>12/3/2014</b>	SeqNo:	<b>950143</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	57.8	0.99	49.69	6.54	103	75	125				
Barium	994	0.99	49.69	943.7	101	75	125				
Cadmium	49.9	0.50	49.69	0.46	99.4	75	125				
Chromium	66.6	0.99	49.69	15.58	103	75	125				
Lead	70.0	0.99	49.69	22.91	94.8	75	125				
Selenium	43.3	1.99	49.69	0	87.2	75	125				
Zinc	116	0.99	49.69	67.44	96.9	75	125				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13545

Sample ID	<b>14111043-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>12/3/2014</b>	SeqNo:	<b>950144</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	57.9	0.99	49.68	6.54	103	75	125	57.84	0.13	20	
Barium	991	0.99	49.68	943.7	94.5	75	125	993.7	0.31	20	
Cadmium	50.0	0.50	49.68	0.46	99.8	75	125	49.87	0.31	20	
Chromium	66.8	0.99	49.68	15.58	103	75	125	66.62	0.21	20	
Lead	70.3	0.99	49.68	22.91	95.4	75	125	70.00	0.43	20	
Selenium	45.6	1.99	49.68	0	91.8	75	125	43.34	5.11	20	
Zinc	116	0.99	49.68	67.44	97.9	75	125	115.6	0.42	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13573

Sample ID	<b>MB-13573</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39764</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13573</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/8/2014</b>	SeqNo:	<b>952494</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	< 10.0	10.0												
TPH (Oil Range)	< 10.0	10.0												
Surr: 4-Terphenyl-d14	2.53		3.330		76.0	33	152							

Sample ID	<b>14111073-005BMS</b>	SampType:	<b>MS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39764</b>			
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>13573</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/9/2014</b>	SeqNo:	<b>953478</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	78.6	10.0	100.0	2.422	76.1	23.4	123							
Surr: 4-Terphenyl-d14	1.79		3.330		53.6	33	152							

Sample ID	<b>14111073-005BMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39764</b>			
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>13573</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/9/2014</b>	SeqNo:	<b>953479</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	74.7	10.0	100.0	2.422	72.3	23.4	123	78.57	5.08	35.6				
Surr: 4-Terphenyl-d14	1.76		3.330		52.9	33	152		0	40				

Sample ID	<b>14111073-007BMS</b>	SampType:	<b>MS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39764</b>			
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>13573</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/9/2014</b>	SeqNo:	<b>953480</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits		



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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13573

Sample ID	<b>14111073-007BMS</b>	SampType: <b>MS</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>12/4/2014</b>	RunNo: <b>39764</b>					
Client ID:	<b>ZZZZZZ</b>	Batch ID: <b>13573</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>12/9/2014</b>	SeqNo: <b>953480</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	105	10.0	100.0	3.784	101	14.5	174
Surr: 4-Terphenyl-d14	2.00		3.330		60.0	33	152

Sample ID	<b>14111073-007BMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>12/4/2014</b>	RunNo: <b>39764</b>					
Client ID:	<b>ZZZZZZ</b>	Batch ID: <b>13573</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>12/9/2014</b>	SeqNo: <b>953481</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	97.9	10.0	100.0	3.784	94.1	14.5	174	104.6	6.56	48.8
Surr: 4-Terphenyl-d14	1.79		3.330		53.8	33	152		0	40

Sample ID	<b>LCS-D-13573</b>	SampType: <b>LCS</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>12/4/2014</b>	RunNo: <b>39764</b>					
Client ID:	<b>LCSS</b>	Batch ID: <b>13573</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>12/9/2014</b>	SeqNo: <b>953489</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	81.9	10.0	100.0	0	81.9	63.4	109
Surr: 4-Terphenyl-d14	1.94		3.330		58.4	33	152

Sample ID	<b>LCSD-D-13573</b>	SampType: <b>LCSD</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>12/4/2014</b>	RunNo: <b>39764</b>					
Client ID:	<b>LCSS02</b>	Batch ID: <b>13573</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>12/9/2014</b>	SeqNo: <b>953490</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	87.3	10.0	100.0	0	87.3	63.4	109	81.92	6.34	17.2
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**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13573

Sample ID	<b>LCSD-D-13573</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39764</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13573</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/9/2014</b>	SeqNo:	<b>953490</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14		2.12			3.330			63.5	33	152		0	40	

Sample ID	<b>LCS-M-13573</b>	SampType:	<b>LCS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39764</b>			
Client ID:	<b>LCSS</b>	Batch ID:	<b>13573</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/9/2014</b>	SeqNo:	<b>953492</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)		99.9		10.0	100.0	0		99.9	63.9	120				
Surr: 4-Terphenyl-d14		2.18			3.330			65.4	33	152				

Sample ID	<b>LCSD-M-13573</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39764</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13573</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/10/2014</b>	SeqNo:	<b>953592</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)		106		10.0	100.0	0		106	63.9	120	99.90	6.31	16.6	
Surr: 4-Terphenyl-d14		2.31			3.330			69.5	33	152		0	40	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13577

Sample ID	<b>MB-13577</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39713</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13577</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951130</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury < 0.10 0.10

Sample ID	<b>LCS-13577</b>	SampType:	<b>LCS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39713</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13577</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951131</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 0.88 0.10 0.83 0 106 80 120

Sample ID	<b>LCSD-13577</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39713</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13577</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951132</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 0.87 0.10 0.83 0 104 80 120 0.88 1.68 20

Sample ID	<b>14111043-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39713</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13577</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951134</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 1.05 0.10 0.83 0.24 97.3 75 125

**Qualifiers:**

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13577

Sample ID	14111043-001AMSD	SampType:	MSD	TestCode:	HG_S_29B	Units:	mg/Kg-dry	Prep Date:	12/4/2014	RunNo:	39713		
Client ID:	ZZZZZZ	Batch ID:	13577	TestNo:	29B/SW7471	SW7471A		Analysis Date:	12/5/2014	SeqNo:	951135		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		1.69		0.10	0.83	0.24	175	75	125	1.05	47.3	20	RS

**NOTES:**

S - Spike recovery and RPD indicate possible spiking error for the MSD. The method is in control as indicated by the Lab Control Sample.

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13579

Sample ID	<b>MB-13579</b>	SampType:	<b>MBLK</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39759</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13579</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/8/2014</b>	SeqNo:	<b>952416</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		< 50		50							

Sample ID	<b>LCS-13579</b>	SampType:	<b>LCS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39759</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13579</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/8/2014</b>	SeqNo:	<b>952417</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		4,780		50	5,000	0	96	75	125		

Sample ID	<b>LCSD-13579</b>	SampType:	<b>LCSD</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39759</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13579</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/8/2014</b>	SeqNo:	<b>952418</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		4,780		50	5,000	0	96	75	125	4,778	0 20

Sample ID	<b>14111084-007AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39759</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13579</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/8/2014</b>	SeqNo:	<b>952420</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		4,960		49	4,878	422	93	75	125		

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13579

Sample ID	14111084-007AMSD	SampType:	MSD	TestCode:	TTBA	Units:	mg/Kg-dry	Prep Date:	12/4/2014	RunNo:	39759		
Client ID:	ZZZZZZ	Batch ID:	13579	TestNo:	LDNR 29-B			Analysis Date:	12/8/2014	SeqNo:	952421		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium		4,990		49	4,916	422	93	75	125	4,956	0	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13607

Sample ID	14111084-001ADUP	SampType:	DUP	TestCode:	SAR_S	Units:		Prep Date:	12/8/2014	RunNo:	39795
Client ID:	ZZZZZZ	Batch ID:	13607	TestNo:	LDNR 29-B	29B		Analysis Date:	12/9/2014	SeqNo:	953393
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium Adsorption Ratio	5.85	0.100						5.884	0.654	20	
Soluble Calcium	1.24	1.00						1.227	0.729	20	
Soluble Magnesium	< 1.00	1.00						0	0	20	
Soluble Sodium	5.49	1.00						5.507	0.396	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13616

Sample ID	14111084-001ADUP	SampType:	DUP	TestCode:	ESP_S	Units:	%	Prep Date:	12/5/2014	RunNo:	39818		
Client ID:	ZZZZZZ	Batch ID:	13616	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	12/10/2014	SeqNo:	953739		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Exchangeable Sodium %	2.8	0.1								3.0	5.6	20
-----------------------	-----	-----	--	--	--	--	--	--	--	-----	-----	----

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 13617

Sample ID	14111084-001ADUP	SampType:	DUP	TestCode:	CEC	Units:	meq/100g	Prep Date:	12/5/2014	RunNo:	39817
Client ID:	ZZZZZZ	Batch ID:	13617	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	12/10/2014	SeqNo:	953716
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		33.3		0.1						31.2	6.4 20

Sample ID	LCS-13617	SampType:	LCS	TestCode:	CEC	Units:	meq/100g	Prep Date:	12/5/2014	RunNo:	39817
Client ID:	LCSS	Batch ID:	13617	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	12/10/2014	SeqNo:	953734
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		22.4		0.1	25.0	0	89.6	76	124		

Sample ID	LCSD-13617	SampType:	LCSD	TestCode:	CEC	Units:	meq/100g	Prep Date:	12/5/2014	RunNo:	39817
Client ID:	LCSS02	Batch ID:	13617	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	12/10/2014	SeqNo:	953735
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		22.1		0.1	25.0	0	88.3	76	124	22.4	1.5 20

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R39607

Sample ID	14111104-001ADUP	SampType:	dup	TestCode:	PMOIST	Units:	wt%	Prep Date:		RunNo:	39607		
Client ID:	ZZZZZZ	Batch ID:	R39607	TestNo:	LDNR 29-B			Analysis Date:	11/26/2014	SeqNo:	948483		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture		19.4		1.0						18.0	7.6	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R39735

Sample ID <b>MB-R39735</b>	SampType: <b>MBLK</b>	TestCode: <b>EC_S</b>	Units: <b>mmhos/cm</b>	Prep Date:	RunNo: <b>39735</b>						
Client ID: <b>PBS</b>	Batch ID: <b>R39735</b>	TestNo: <b>LDNR 29-B</b>		Analysis Date: <b>12/8/2014</b>	SeqNo: <b>951566</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity < 0.10 0.10

Sample ID <b>R39735LCS1</b>	SampType: <b>LCS1</b>	TestCode: <b>EC_S</b>	Units: <b>mmhos/cm</b>	Prep Date:	RunNo: <b>39735</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R39735</b>	TestNo: <b>LDNR 29-B</b>		Analysis Date: <b>12/8/2014</b>	SeqNo: <b>951567</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 0.51 0.10 0.47 0 108 89.87 110.12

Sample ID <b>R39735LCS2</b>	SampType: <b>LCS2</b>	TestCode: <b>EC_S</b>	Units: <b>mmhos/cm</b>	Prep Date:	RunNo: <b>39735</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R39735</b>	TestNo: <b>LDNR 29-B</b>		Analysis Date: <b>12/8/2014</b>	SeqNo: <b>951568</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 56.3 0.10 53.00 0 106 90 110

Sample ID <b>14111084-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>EC_S</b>	Units: <b>mmhos/cm</b>	Prep Date:	RunNo: <b>39735</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R39735</b>	TestNo: <b>LDNR 29-B</b>		Analysis Date: <b>12/8/2014</b>	SeqNo: <b>951572</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 0.63 0.10 0.60 4.22 20

**Qualifiers:**

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R39806

Sample ID	<b>MB-R39806</b>	SampType:	<b>MBLK</b>	TestCode:	<b>CL_LEACHA</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>39806</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R39806</b>	TestNo:	<b>29B/SW9253</b>			Analysis Date:	<b>12/10/2014</b>	SeqNo:	<b>953651</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		< 10.0		10.0							

Sample ID	<b>LCS-R39806</b>	SampType:	<b>LCS</b>	TestCode:	<b>CL_LEACHA</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>39806</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R39806</b>	TestNo:	<b>29B/SW9253</b>			Analysis Date:	<b>12/10/2014</b>	SeqNo:	<b>953652</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		99.4		10.0	100.0	0	99.4	80	120		

Sample ID	<b>LCSD-R39806</b>	SampType:	<b>LCSD</b>	TestCode:	<b>CL_LEACHA</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>39806</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R39806</b>	TestNo:	<b>29B/SW9253</b>			Analysis Date:	<b>12/10/2014</b>	SeqNo:	<b>953653</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		114		10.0	100.0	0	114	80	120	99.40	13.3 20

Sample ID	<b>14110961-005ams</b>	SampType:	<b>MS</b>	TestCode:	<b>CL_LEACHA</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>39806</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R39806</b>	TestNo:	<b>29B/SW9253</b>			Analysis Date:	<b>12/10/2014</b>	SeqNo:	<b>953672</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Chlorides		9,050		500	5,000	4,083	99.4	80	120		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111166  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R39806

Sample ID	14110961-005amsd	SampType:	MSD	TestCode:	CL_LEACHA	Units:	mg/L	Prep Date:		RunNo:	39806		
Client ID:	ZZZZZZ	Batch ID:	R39806	TestNo:	29B/SW9253			Analysis Date:	12/10/2014	SeqNo:	953673		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorides		9,230		500	5,000	4,083	103	80	120	9,052	1.94	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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## Sample Log-In Check List

Client Name: **ICON\_ENV** Work Order Number: **14111166** RcptNo: **1**

Logged by:	<b>Danielle Hollier</b>	<b>11/26/2014 3:30:00 PM</b>	<i>Danielle Hollier</i>
Completed By:	<b>Danielle Hollier</b>	<b>11/26/2014 3:40:07 PM</b>	<i>Danielle Hollier</i>
Reviewed By:	<b>Caitlin Duplantis</b>	<b>12/1/2014 12:31:55 PM</b>	<i>Caitlin Duplantis</i>

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 Custody seals intact on shipping container/cooler? Yes  No  Not Present   
 No. Seal Date: Signed By:  
 5. Was an attempt made to cool the samples? Yes  No  NA   
 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
 7. Sample(s) in proper container(s)? Yes  No   
 8. Sufficient sample volume for indicated test(s)? Yes  No   
 9. Are samples (except VOA and ONG) properly preserved? Yes  No   
 10. Was preservative added to bottles? Yes  No  NA   
 11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  No VOA Vials   
 12. Were any sample containers received broken? Yes  No   
 13. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)  
 14. Are matrices correctly identified on Chain of Custody? Yes  No   
 15. Is it clear what analyses were requested? Yes  No   
 16. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

### Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.2	Good	Not Present			





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December 11, 2014

Greg Miller  
ICON Environmental Services  
2049 Commercial Drive  
Port Allen, LA 70767  
TEL: (225) 344-8490  
FAX (225) 344-6654

RE: VPSB East White Lake

Order No.: 14111043

Dear Greg Miller:

Element Materials Technology Lafayette, LLC received 7 sample(s) on 11/24/2014 for the analyses presented in the following report.

In accordance with your instructions Element Lafayette conducted the analysis shown on the following pages on samples submitted by your company. The results related only to the items tested. Unless otherwise noted, all analyses were conducted using EPA approved methodologies and all test results meet all requirements of TNI. All relevant sampling information is on the attached Chain-of-Custody form.

All soil data, except for 29-B, are on a wet-weight basis unless otherwise indicated in the units field as –dry.

LELAP Certification No.: 01997. TCEQ Certification No.: T104704261-14-6. A scope of accredited parameters is available upon request. A "#" by the test method or analyte indicates this parameter is outside the scope of accreditation.

Estimated uncertainty is available upon request. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in blue ink that reads 'Annie Reedy'.

Annie Reedy  
Manager, Analytical Services  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344



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## Case Narrative

WO#: 14111043  
Date: 12/11/2014

---

**CLIENT:** ICON Environmental Services  
**Project:** VPSB East White Lake

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Unless specified by the client, a duplicate or MS/MSD, wherever applicable, is randomly selected and analyzed from each analytical batch provided sample volume is sufficient. The sample chosen for duplicate or MS/MSD may or may not be a sample submitted in this workorder. A method blank and/or a lab control sample (LCS)/lab control sample duplicate (LCSD), wherever applicable, are processed as a quality control check for each analytical batch. When the matrix QC data is not available due to insufficient sample volume or when the results indicate possible matrix effect, the validity of the batch is determined by the method blank and LCS/LCSD.

The results of the laboratory internal quality control data are provided in the QC Summary Report section of the report for your review. Laboratory-related QC exceptions that may impact the validity of data are discussed in the case narrative. Sample-related QC exceptions are flagged either in the results page(s) or in the QC report page(s). End users should consider QC exceptions when evaluating sample data against data quality objectives.

Any other exceptions associated with this report will be footnoted in the results page(s) or the QC summary page(s).



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# Analytical Report

(consolidated)

WO#: **14111043**

Date Reported: **12/11/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 11/20/2014 11:50:00 AM  
**Project:** VPSB East White Lake  
**Lab ID:** 14111043-001 **Matrix:** SOIL  
**Client Sample ID** E Wall Comp

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	885	100		mg/Kg	10	12/9/2014 7:30:00 PM
TPH (Oil Range)	1,120	100		mg/Kg	10	12/9/2014 7:30:00 PM
Surr: 4-Terphenyl-d14	75.5	33 - 152		%REC	10	12/9/2014 7:30:00 PM
<b>29B METALS</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.24	0.10		mg/Kg-dry	1	12/5/2014 12:36:45 PM
<b>29B METALS</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	6.54	0.99		mg/Kg-dry	1	12/3/2014 11:09:48 PM
Barium	944	0.99		mg/Kg-dry	1	12/3/2014 11:09:48 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	12/3/2014 11:09:48 PM
Chromium	15.6	0.99		mg/Kg-dry	1	12/3/2014 11:09:48 PM
Lead	22.9	0.99		mg/Kg-dry	1	12/3/2014 11:09:48 PM
Strontium	92.1	0.99		mg/Kg-dry	1	12/3/2014 11:09:48 PM
Zinc	67.4	0.99		mg/Kg-dry	1	12/3/2014 11:09:48 PM
<b>29B METALS</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	1,700	47		mg/Kg-dry	1	12/4/2014 1:36:34 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





Element Materials Technology Lafayette  
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# Analytical Report

(consolidated)

WO#: 14111043

Date Reported: 12/11/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 11/20/2014 2:10:00 PM  
**Project:** VPSB East White Lake  
**Lab ID:** 14111043-002 **Matrix:** SOIL  
**Client Sample ID** BK-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	22.7	0.1		meq/100g	1	12/8/2014 12:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	0.42	0.10		mmhos/cm	1	12/5/2014 11:19:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	1.5	0.1		%	1	12/8/2014 12:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	7.19	1.68		S.U.	1	12/9/2014 2:45:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	16.1	1.0		wt%	1	11/25/2014 7:50:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	2.12	0.100			1	12/5/2014
Soluble Calcium	1.19	1.00		meq/L	1	12/5/2014
Soluble Magnesium	< 1.00	1.00		meq/L	1	12/5/2014
Soluble Sodium	2.19	1.00		meq/L	1	12/5/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	< 10.0	10.0		mg/Kg	1	12/4/2014 7:29:00 PM
TPH (Oil Range)	12.9	10.0		mg/Kg	1	12/4/2014 7:29:00 PM
Surr: 4-Terphenyl-d14	59.0	33 - 152		%REC	1	12/4/2014 7:29:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>MERCURY IN SOIL OR SLUDGE</b>						

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14111043

Date Reported: 12/11/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 11/20/2014 2:10:00 PM  
**Project:** VPSB East White Lake  
**Lab ID:** 14111043-002 **Matrix:** SOIL  
**Client Sample ID** BK-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING MERCURY IN SOIL OR SLUDGE</b>				<b>29B/SW7471A</b>	<b>SW7471A</b>	Analyst: <b>SXM</b>
Mercury	< 0.10	0.10		mg/Kg-dry	1	12/5/2014 12:44:58 PM
<b>LA STATEWIDE ORDER 29-B TESTING METALS IN SOIL OR SLUDGE BY ICP</b>				<b>SW6010B</b>	<b>SW3050B</b>	Analyst: <b>STS</b>
Arsenic	4.11	1.00		mg/Kg-dry	1	12/3/2014 11:24:16 PM
Barium	106	1.00		mg/Kg-dry	1	12/3/2014 11:24:16 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	12/3/2014 11:24:16 PM
Chromium	10.3	1.00		mg/Kg-dry	1	12/3/2014 11:24:16 PM
Lead	8.18	1.00		mg/Kg-dry	1	12/3/2014 11:24:16 PM
Strontium	19.6	1.00		mg/Kg-dry	1	12/3/2014 11:24:16 PM
Zinc	26.9	1.00		mg/Kg-dry	1	12/3/2014 11:24:16 PM
<b>LA STATEWIDE ORDER 29-B TESTING TRUE TOTAL BARIUM</b>				<b>LDNR 29-B</b>		Analyst: <b>STS</b>
True Total Barium	162	46		mg/Kg-dry	1	12/4/2014 1:39:56 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14111043

Date Reported: 12/11/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 11/20/2014 2:20:00 PM  
**Project:** VPSB East White Lake  
**Lab ID:** 14111043-003 **Matrix:** SOIL  
**Client Sample ID** BK-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	20.6	0.1		meq/100g	1	12/8/2014 12:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	0.17	0.10		mmhos/cm	1	12/5/2014 11:20:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	1.7	0.1		%	1	12/8/2014 12:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	6.84	1.68		S.U.	1	12/9/2014 2:45:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	18.2	1.0		wt%	1	11/25/2014 7:50:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	1.94	0.100			1	12/5/2014
Soluble Calcium	< 1.00	1.00		meq/L	1	12/5/2014
Soluble Magnesium	< 1.00	1.00		meq/L	1	12/5/2014
Soluble Sodium	1.17	1.00		meq/L	1	12/5/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	< 10.0	10.0		mg/Kg	1	12/4/2014 7:45:00 PM
TPH (Oil Range)	< 10.0	10.0		mg/Kg	1	12/4/2014 7:45:00 PM
Surr: 4-Terphenyl-d14	57.9	33 - 152		%REC	1	12/4/2014 7:45:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>MERCURY IN SOIL OR SLUDGE</b>						

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14111043

Date Reported: 12/11/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 11/20/2014 2:20:00 PM  
**Project:** VPSB East White Lake  
**Lab ID:** 14111043-003 **Matrix:** SOIL  
**Client Sample ID** BK-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING MERCURY IN SOIL OR SLUDGE</b>				<b>29B/SW7471A</b>	<b>SW7471A</b>	Analyst: <b>SXM</b>
Mercury	< 0.10	0.10		mg/Kg-dry	1	12/5/2014 12:47:22 PM
<b>LA STATEWIDE ORDER 29-B TESTING METALS IN SOIL OR SLUDGE BY ICP</b>				<b>SW6010B</b>	<b>SW3050B</b>	Analyst: <b>STS</b>
Arsenic	2.31	0.99		mg/Kg-dry	1	12/3/2014 11:27:42 PM
Barium	78.1	0.99		mg/Kg-dry	1	12/3/2014 11:27:42 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	12/3/2014 11:27:42 PM
Chromium	9.65	0.99		mg/Kg-dry	1	12/3/2014 11:27:42 PM
Lead	7.58	0.99		mg/Kg-dry	1	12/3/2014 11:27:42 PM
Strontium	17.1	0.99		mg/Kg-dry	1	12/3/2014 11:27:42 PM
Zinc	26.1	0.99		mg/Kg-dry	1	12/3/2014 11:27:42 PM
<b>LA STATEWIDE ORDER 29-B TESTING TRUE TOTAL BARIUM</b>				<b>LDNR 29-B</b>		Analyst: <b>STS</b>
True Total Barium	127	46		mg/Kg-dry	1	12/4/2014 1:43:18 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14111043

Date Reported: 12/11/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 11/20/2014 2:25:00 PM  
**Project:** VPSB East White Lake  
**Lab ID:** 14111043-004 **Matrix:** SOIL  
**Client Sample ID** BK-3

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	20.2	0.1		meq/100g	1	12/8/2014 12:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	0.38	0.10		mmhos/cm	1	12/5/2014 11:20:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	1.2	0.1		%	1	12/8/2014 12:57:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	7.34	1.68		S.U.	1	12/9/2014 2:45:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	19.8	1.0		wt%	1	11/25/2014 7:50:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	1.81	0.100			1	12/5/2014
Soluble Calcium	1.37	1.00		meq/L	1	12/5/2014
Soluble Magnesium	< 1.00	1.00		meq/L	1	12/5/2014
Soluble Sodium	1.92	1.00		meq/L	1	12/5/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	< 10.0	10.0		mg/Kg	1	12/4/2014 8:01:00 PM
TPH (Oil Range)	< 10.0	10.0		mg/Kg	1	12/4/2014 8:01:00 PM
Surr: 4-Terphenyl-d14	61.7	33 - 152		%REC	1	12/4/2014 8:01:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>MERCURY IN SOIL OR SLUDGE</b>						

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14111043

Date Reported: 12/11/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 11/20/2014 2:25:00 PM  
**Project:** VPSB East White Lake  
**Lab ID:** 14111043-004 **Matrix:** SOIL  
**Client Sample ID** BK-3

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING MERCURY IN SOIL OR SLUDGE</b>					<b>29B/SW7471A SW7471A</b>	Analyst: <b>SXM</b>
Mercury	< 0.10	0.10		mg/Kg-dry	1	12/5/2014 12:49:45 PM
<b>LA STATEWIDE ORDER 29-B TESTING METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW6010B SW3050B</b>	Analyst: <b>STS</b>
Arsenic	5.10	0.99		mg/Kg-dry	1	12/3/2014 11:31:10 PM
Barium	207	0.99		mg/Kg-dry	1	12/3/2014 11:31:10 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	12/3/2014 11:31:10 PM
Chromium	10.5	0.99		mg/Kg-dry	1	12/3/2014 11:31:10 PM
Lead	9.91	0.99		mg/Kg-dry	1	12/3/2014 11:31:10 PM
Strontium	19.4	0.99		mg/Kg-dry	1	12/3/2014 11:31:10 PM
Zinc	31.3	0.99		mg/Kg-dry	1	12/3/2014 11:31:10 PM
<b>LA STATEWIDE ORDER 29-B TESTING TRUE TOTAL BARIUM</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
True Total Barium	232	46		mg/Kg-dry	1	12/4/2014 1:46:39 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14111043**

Date Reported: **12/11/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 11/21/2014 10:00:00 AM  
**Project:** VPSB East White Lake  
**Lab ID:** 14111043-005 **Matrix:** SOIL  
**Client Sample ID** N Bottom Comp

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	16.8	10.0		mg/Kg	1	12/4/2014 8:17:00 PM
TPH (Oil Range)	18.6	10.0		mg/Kg	1	12/4/2014 8:17:00 PM
Surr: 4-Terphenyl-d14	59.8	33 - 152		%REC	1	12/4/2014 8:17:00 PM
<b>29B METALS</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	12/5/2014 12:52:08 PM
<b>29B METALS</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	2.67	0.99		mg/Kg-dry	1	12/3/2014 11:34:56 PM
Barium	123	0.99		mg/Kg-dry	1	12/3/2014 11:34:56 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	12/3/2014 11:34:56 PM
Chromium	9.47	0.99		mg/Kg-dry	1	12/3/2014 11:34:56 PM
Lead	8.48	0.99		mg/Kg-dry	1	12/3/2014 11:34:56 PM
Strontium	67.9	0.99		mg/Kg-dry	1	12/3/2014 11:34:56 PM
Zinc	39.7	0.99		mg/Kg-dry	1	12/3/2014 11:34:56 PM
<b>29B METALS</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	187	47		mg/Kg-dry	1	12/4/2014 1:50:03 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14111043

Date Reported: 12/11/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 11/22/2014 1:20:00 PM  
**Project:** VPSB East White Lake  
**Lab ID:** 14111043-006 **Matrix:** SOIL  
**Client Sample ID** S Bottom Comp

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	23.6	10.0		mg/Kg	1	12/4/2014 8:33:00 PM
TPH (Oil Range)	36.7	10.0		mg/Kg	1	12/4/2014 8:33:00 PM
Surr: 4-Terphenyl-d14	64.1	33 - 152		%REC	1	12/4/2014 8:33:00 PM
<b>29B METALS</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	12/5/2014 12:59:44 PM
<b>29B METALS</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.91	1.00		mg/Kg-dry	1	12/3/2014 11:38:57 PM
Barium	163	1.00		mg/Kg-dry	1	12/3/2014 11:38:57 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	12/3/2014 11:38:57 PM
Chromium	10.9	1.00		mg/Kg-dry	1	12/3/2014 11:38:57 PM
Lead	11.0	1.00		mg/Kg-dry	1	12/3/2014 11:38:57 PM
Strontium	102	1.00		mg/Kg-dry	1	12/3/2014 11:38:57 PM
Zinc	49.3	1.00		mg/Kg-dry	1	12/3/2014 11:38:57 PM
<b>29B METALS</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	287	46		mg/Kg-dry	1	12/4/2014 1:53:25 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





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# Analytical Report

(consolidated)

WO#: **14111043**

Date Reported: **12/11/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 11/22/2014 2:30:00 PM  
**Project:** VPSB East White Lake  
**Lab ID:** 14111043-007 **Matrix:** SOIL  
**Client Sample ID** S Wall Comp

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
TPH (Diesel Range)	257	100		mg/Kg	10	12/9/2014 7:46:00 PM
TPH (Oil Range)	253	100		mg/Kg	10	12/9/2014 7:46:00 PM
Surr: 4-Terphenyl-d14	59.0	33 - 152		%REC	10	12/9/2014 7:46:00 PM
<b>29B METALS</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	12/5/2014 1:02:07 PM
<b>29B METALS</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.67	1.00		mg/Kg-dry	1	12/3/2014 11:42:24 PM
Barium	331	1.00		mg/Kg-dry	1	12/3/2014 11:42:24 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	12/3/2014 11:42:24 PM
Chromium	10.4	1.00		mg/Kg-dry	1	12/3/2014 11:42:24 PM
Lead	10.9	1.00		mg/Kg-dry	1	12/3/2014 11:42:24 PM
Strontium	190	9.97		mg/Kg-dry	10	12/5/2014 7:32:35 PM
Zinc	37.7	1.00		mg/Kg-dry	1	12/3/2014 11:42:24 PM
<b>29B METALS</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	415	46		mg/Kg-dry	1	12/4/2014 1:56:48 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13545

Sample ID	<b>14111043-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39723</b>
Client ID:	<b>E Wall Comp</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951451</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Strontium 142 9.94 49.69 92.25 99.5 75 125

Sample ID	<b>14111043-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39723</b>
Client ID:	<b>E Wall Comp</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951452</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Strontium 142 9.94 49.68 92.25 99.9 75 125 141.7 0.13 20

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13545

Sample ID	<b>MB-13545</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>		
Client ID:	<b>PBS</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/3/2014</b>	SeqNo:	<b>950136</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		< 1.00		1.00									
Barium		< 1.00		1.00									
Cadmium		< 0.50		0.50									
Chromium		< 1.00		1.00									
Lead		< 1.00		1.00									
Strontium		< 1.00		1.00									
Zinc		< 1.00		1.00									

Sample ID	<b>LCS-13545</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/3/2014</b>	SeqNo:	<b>950137</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		48.9		1.00	50.00	0	97.7	80	120				
Barium		48.4		1.00	50.00	0	96.8	80	120				
Cadmium		48.4		0.50	50.00	0	96.8	80	120				
Chromium		47.8		1.00	50.00	0	95.7	80	120				
Lead		47.1		1.00	50.00	0	94.2	80	120				
Strontium		51.8		1.00	50.00	0	104	80	120				
Zinc		47.8		1.00	50.00	0	95.7	80	120				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13545

Sample ID	<b>LCSD-13545</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>		
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/3/2014</b>	SeqNo:	<b>950143</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		48.8		1.00	50.00	0	97.5	80	120	48.87	0.25	20	
Barium		48.6		1.00	50.00	0	97.3	80	120	48.42	0.47	20	
Cadmium		48.6		0.50	50.00	0	97.1	80	120	48.39	0.37	20	
Chromium		48.1		1.00	50.00	0	96.2	80	120	47.84	0.54	20	
Lead		47.4		1.00	50.00	0	94.7	80	120	47.12	0.53	20	
Strontium		51.5		1.00	50.00	0	103	80	120	51.82	0.62	20	
Zinc		48.1		1.00	50.00	0	96.2	80	120	47.84	0.54	20	

Sample ID	<b>14111043-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>		
Client ID:	<b>E Wall Comp</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/3/2014</b>	SeqNo:	<b>950143</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		57.8		0.99	49.69	6.54	103	75	125				
Barium		994		0.99	49.69	943.7	101	75	125				
Cadmium		49.9		0.50	49.69	0.46	99.4	75	125				
Chromium		66.6		0.99	49.69	15.58	103	75	125				
Lead		70.0		0.99	49.69	22.91	94.8	75	125				
Zinc		116		0.99	49.69	67.44	96.9	75	125				

Sample ID	<b>14111043-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>		
Client ID:	<b>E Wall Comp</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>12/3/2014</b>	SeqNo:	<b>950143</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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 Website: [www.element.com](http://www.element.com)

# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13545

Sample ID	<b>14111043-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>
Client ID:	<b>E Wall Comp</b>	Batch ID:	<b>13545</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>12/3/2014</b>	SeqNo:	<b>950144</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	57.9	0.99	49.68	6.54	103	75	125	57.84	0.13	20	
Barium	991	0.99	49.68	943.7	94.5	75	125	993.7	0.31	20	
Cadmium	50.0	0.50	49.68	0.46	99.8	75	125	49.87	0.31	20	
Chromium	66.8	0.99	49.68	15.58	103	75	125	66.62	0.21	20	
Lead	70.3	0.99	49.68	22.91	95.4	75	125	70.00	0.43	20	
Zinc	116	0.99	49.68	67.44	97.9	75	125	115.6	0.42	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13550

Sample ID	<b>MB-13550</b>	SampType:	<b>MBLK</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13550</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/4/2014</b>	SeqNo:	<b>950169</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		< 50		50							

Sample ID	<b>LCS-13550</b>	SampType:	<b>LCS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13550</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/4/2014</b>	SeqNo:	<b>950170</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		4,740		50	5,000	0	95	75	125		

Sample ID	<b>LCSD-13550</b>	SampType:	<b>LCSD</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13550</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/4/2014</b>	SeqNo:	<b>950171</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		4,780		50	5,000	0	96	75	125	4,744	0 20

Sample ID	<b>14110961-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/3/2014</b>	RunNo:	<b>39631</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13550</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/4/2014</b>	SeqNo:	<b>950173</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		4,690		48	4,753	176	95	75	125		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13550

Sample ID	14110961-001AMSD	SampType:	MSD	TestCode:	TTBA	Units:	mg/Kg-dry	Prep Date:	12/3/2014	RunNo:	39631		
Client ID:	ZZZZZZ	Batch ID:	13550	TestNo:	LDNR 29-B	Analysis Date:	12/4/2014	SeqNo:	950174				
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium		4,630		48	4,766	176	94	75	125	4,690	1	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13558

Sample ID	14110956-003ADUP	SampType:	dup	TestCode:	ESP_S	Units:	%	Prep Date:	12/2/2014	RunNo:	39755		
Client ID:	ZZZZZZ	Batch ID:	13558	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	12/8/2014	SeqNo:	952238		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Exchangeable Sodium %	8.1	0.1								8.6	6.7	20
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**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13559

Sample ID	14110956-003ADUP	SampType:	dup	TestCode:	CEC	Units:	meq/100g	Prep Date:	12/2/2014	RunNo:	39754
Client ID:	ZZZZZZ	Batch ID:	13559	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	12/8/2014	SeqNo:	952215
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		33.8		0.1						33.0	2.5 20

Sample ID	lcs-13559	SampType:	lcs	TestCode:	CEC	Units:	meq/100g	Prep Date:	12/2/2014	RunNo:	39754
Client ID:	LCSS	Batch ID:	13559	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	12/8/2014	SeqNo:	952233
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		22.4		0.1	25.0	0	89.7	76	124		

Sample ID	lcsd-13559	SampType:	lcsd	TestCode:	CEC	Units:	meq/100g	Prep Date:	12/2/2014	RunNo:	39754
Client ID:	LCSS02	Batch ID:	13559	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	12/8/2014	SeqNo:	952234
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		21.8		0.1	25.0	0	87.1	76	124	22.4	2.9 20

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13570

Sample ID	<b>LCS-D-13570</b>	SampType:	<b>LCS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/2/2014</b>	RunNo:	<b>39683</b>			
Client ID:	<b>LCSS</b>	Batch ID:	<b>13570</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/4/2014</b>	SeqNo:	<b>950641</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)		106		10.0	100.0	0		106	63.4	109				
Surr: 4-Terphenyl-d14		2.09			3.330			62.9	33	152				

Sample ID	<b>LCSD-D-13570</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/2/2014</b>	RunNo:	<b>39683</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13570</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/4/2014</b>	SeqNo:	<b>950642</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)		104		10.0	100.0	0		104	63.4	109	105.8	1.81	17.2	
Surr: 4-Terphenyl-d14		2.01			3.330			60.4	33	152		0	40	

Sample ID	<b>MB-13570</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/2/2014</b>	RunNo:	<b>39683</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13570</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/4/2014</b>	SeqNo:	<b>950645</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)		< 10.0		10.0										
TPH (Oil Range)		< 10.0		10.0										
Surr: 4-Terphenyl-d14		2.18			3.330			65.6	33	152				

Sample ID	<b>14110955-067AMS-</b>	SampType:	<b>MS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/2/2014</b>	RunNo:	<b>39683</b>			
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13570</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951476</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13570

Sample ID	14110955-067AMS-	SampType: MS	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 12/2/2014	RunNo: 39683					
Client ID:	ZZZZZZ	Batch ID: 13570	TestNo: SW8015B	SW3550C	Analysis Date: 12/5/2014	SeqNo: 951476					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)	11,900	2,000	100.0	12,800	-915	23.4	123				SD
Surr: 4-Terphenyl-d14	0		3.330		0	33	152				SD

**NOTES:**  
 SD - Surrogate and matrix spike diluted out due to dilution.

Sample ID	14110955-067AMSD	SampType: MSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 12/2/2014	RunNo: 39683					
Client ID:	ZZZZZZ	Batch ID: 13570	TestNo: SW8015B	SW3550C	Analysis Date: 12/5/2014	SeqNo: 951477					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)	7,910	2,500	100.0	12,800	-4,890	23.4	123	11,890	40.1	35.6	RSD
Surr: 4-Terphenyl-d14	0		3.330		0	33	152		0	40	SD

**NOTES:**  
 R - High RPD due to suspected sample non-homogeneity. The method is in control as indicated by the LCS/LCSD.

Sample ID	14110955-067AMS-	SampType: MS	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 12/2/2014	RunNo: 39683					
Client ID:	ZZZZZZ	Batch ID: 13570	TestNo: SW8015B	SW3550C	Analysis Date: 12/5/2014	SeqNo: 951480					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)	12,300	2,000	100.0	14,960	-2,630	14.5	174				SD
Surr: 4-Terphenyl-d14	0		3.330		0	33	152				SD

**NOTES:**  
 SD - Surrogate and matrix spike diluted out due to dilution.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
	ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13570

Sample ID	<b>14110955-067AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/2/2014</b>	RunNo:	<b>39683</b>					
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13570</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951481</b>					
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)		9,710		2,500		100.0		14,960		-5,250	14.5	174	12,320	23.7	48.8	SD
Surr: 4-Terphenyl-d14		0				3.330				0	33	152		0	40	SD

Sample ID	<b>LCS-M-13570</b>	SampType:	<b>LCS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/2/2014</b>	RunNo:	<b>39683</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>13570</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/9/2014</b>	SeqNo:	<b>953476</b>					
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)		111		10.0		100.0		0		111	63.9	120				
Surr: 4-Terphenyl-d14		2.31				3.330				69.5	33	152				

Sample ID	<b>LCSD-M-13570</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>12/2/2014</b>	RunNo:	<b>39683</b>					
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13570</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>12/10/2014</b>	SeqNo:	<b>953594</b>					
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)		113		10.0		100.0		0		113	63.9	120	110.6	1.76	16.6	
Surr: 4-Terphenyl-d14		2.30				3.330				68.9	33	152		0	40	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13577

Sample ID	<b>MB-13577</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39713</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13577</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951130</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury < 0.10 0.10

Sample ID	<b>LCS-13577</b>	SampType:	<b>LCS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39713</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13577</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951131</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 0.88 0.10 0.83 0 106 80 120

Sample ID	<b>LCSD-13577</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39713</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13577</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951132</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 0.87 0.10 0.83 0 104 80 120 0.88 1.68 20

Sample ID	<b>14111043-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39713</b>
Client ID:	<b>E Wall Comp</b>	Batch ID:	<b>13577</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951134</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 1.05 0.10 0.83 0.24 97.3 75 125

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13577

Sample ID	14111043-001AMSD	SampType:	MSD	TestCode:	HG_S_29B	Units:	mg/Kg-dry	Prep Date:	12/4/2014	RunNo:	39713		
Client ID:	E Wall Comp	Batch ID:	13577	TestNo:	29B/SW7471	SW7471A		Analysis Date:	12/5/2014	SeqNo:	951135		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		1.69		0.10	0.83	0.24	175	75	125	1.05	47.3	20	RS

**NOTES:**

S - Spike recovery and RPD indicate possible spiking error for the MSD. The method is in control as indicated by the Lab Control Sample.

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** 13591

Sample ID	<b>14110961-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>SAR_S</b>	Units:		Prep Date:	<b>12/4/2014</b>	RunNo:	<b>39707</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13591</b>	TestNo:	<b>LDNR 29-B</b>	<b>29B</b>		Analysis Date:	<b>12/5/2014</b>	SeqNo:	<b>951020</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium Adsorption Ratio	149	0.100						146.8	1.51	20	*
Soluble Calcium	1.15	1.00						1.169	1.68	20	
Soluble Magnesium	< 1.00	1.00						0	0	20	
Soluble Sodium	130	1.00						130.3	0.535	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** R39543

Sample ID	14110956-044ADUP	SampType:	dup	TestCode:	PMOIST	Units:	wt%	Prep Date:		RunNo:	39543		
Client ID:	ZZZZZZ	Batch ID:	R39543	TestNo:	LDNR 29-B			Analysis Date:	11/24/2014	SeqNo:	947001		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture		14.7		1.0						16.0	8.4	20	

Sample ID	14111018-003ADUP	SampType:	dup	TestCode:	PMOIST	Units:	wt%	Prep Date:		RunNo:	39543		
Client ID:	ZZZZZZ	Batch ID:	R39543	TestNo:	LDNR 29-B			Analysis Date:	11/24/2014	SeqNo:	947005		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture		37.4		1.0						37.5	0.2	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** R39694

Sample ID <b>MB-R39694</b>	SampType: <b>MBLK</b>	TestCode: <b>EC_S</b>	Units: <b>mmhos/cm</b>	Prep Date:	RunNo: <b>39694</b>						
Client ID: <b>PBS</b>	Batch ID: <b>R39694</b>	TestNo: <b>LDNR 29-B</b>		Analysis Date: <b>12/5/2014</b>	SeqNo: <b>950981</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity < 0.10 0.10

Sample ID <b>R39694LCS1</b>	SampType: <b>LCS1</b>	TestCode: <b>EC_S</b>	Units: <b>mmhos/cm</b>	Prep Date:	RunNo: <b>39694</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R39694</b>	TestNo: <b>LDNR 29-B</b>		Analysis Date: <b>12/5/2014</b>	SeqNo: <b>950982</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 0.49 0.10 0.47 0 103 89.87 110.12

Sample ID <b>R39694LCS2</b>	SampType: <b>LCS2</b>	TestCode: <b>EC_S</b>	Units: <b>mmhos/cm</b>	Prep Date:	RunNo: <b>39694</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R39694</b>	TestNo: <b>LDNR 29-B</b>		Analysis Date: <b>12/5/2014</b>	SeqNo: <b>950983</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 53.7 0.10 53.00 0 101 90 110

Sample ID <b>14110956-044ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>EC_S</b>	Units: <b>mmhos/cm</b>	Prep Date:	RunNo: <b>39694</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R39694</b>	TestNo: <b>LDNR 29-B</b>		Analysis Date: <b>12/5/2014</b>	SeqNo: <b>950987</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 9.45 0.10 9.69 2.51 20 \*

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 14111043  
 11-Dec-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake

**BatchID:** R39790

Sample ID	<b>LCS-R39790</b>	SampType:	<b>LCS</b>	TestCode:	<b>PH_S</b>	Units:	<b>S.U.</b>	Prep Date:		RunNo:	<b>39790</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R39790</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/9/2014</b>	SeqNo:	<b>953318</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

pH Measurement 6.99 1.68 7.00 0 99.9 97.14 102.86

Sample ID	<b>14120048-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>PH_S</b>	Units:	<b>S.U.</b>	Prep Date:		RunNo:	<b>39790</b>
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R39790</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>12/9/2014</b>	SeqNo:	<b>953324</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

pH Measurement 6.48 1.68 6.35 2.03 20

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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## Sample Log-In Check List

Client Name: **ICON\_ENV**

Work Order Number: **14111043**

RcptNo: **1**

Logged by:	<b>Danielle Hollier</b>	<b>11/24/2014 4:30:00 PM</b>	<i>Danielle Hollier</i>
Completed By:	<b>Danielle Hollier</b>	<b>11/24/2014 4:42:28 PM</b>	<i>Danielle Hollier</i>
Reviewed By:	<b>Caitlin Duplantis</b>	<b>11/26/2014 12:04:32 PM</b>	<i>Caitlin Duplantis</i>

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA
4. Shipping container/cooler in good condition? Yes  No   
 Custody seals intact on shipping container/cooler? Yes  No  Not Present
- No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes  No  NA
6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
7. Sample(s) in proper container(s)? Yes  No
8. Sufficient sample volume for indicated test(s)? Yes  No
9. Are samples (except VOA and ONG) properly preserved? Yes  No
10. Was preservative added to bottles? Yes  No  NA
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  No VOA Vials
12. Were any sample containers received broken? Yes  No
13. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes  No
15. Is it clear what analyses were requested? Yes  No
16. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

### Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.8	Good	Not Present			



# Chain of Custody

Laboratory Number: **1411043**

Company Name: **Icon Environmental**  
 Contact Name: **Greg Miller**  
 Address: **2049 Commercial Dr**  
 City, State Zip: **Port Allen LA 70767**  
 Phone Number: **225 344 8490**  
 Fax Number:  
 E-mail Address: **gregm@iconenv.com**

Client Information:  
 Billing Information: **same**  
 PO Number:  
 Quote Number:  
 Required QC Level:  
 Bill Monthly:  Yes  No  
 Ext:  
 Shipping Method: **UPS / FedEx / Airborne**  
 DHL / Element / Hand / Mail

Project Name/Number: **VPSB East White Lake**  
 Matrix Code: **9077-**  
 Sampler's Signature: **DOR**

DW = Drinking Water  
 WW = Waste Water  
 GW = Ground Water  
 AQ = Aqueous  
 OT = Other  
 SL = Sludge SOL = Solid  
 O = Oil SO = Soil  
 F = Food SW = Swab  
 NG = Natural Gas  
 NGL = Natural Gas Liquid  
 PW = Produced Water  
 CF = Completion Fluid

Sample ID/Description	Which Regulations Apply: <input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> INFOES <input type="checkbox"/> USOA/FDA <input type="checkbox"/> RECAP/PRISC	Turn Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> Other	Collection Information		Rush turn times will incur a surcharge and must be pre-approved by lab.	Container Type Quantity	Pres. HCl, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> NaOH, Na <sub>2</sub> O <sub>2</sub> ASAC	Requested Tests	Comments
			Date	Time					
E. Wall Comp			11/20/14	1150	C	G		Full 298 TPH-DIC (low) 298 METALS	All Dry Weight 298 METALS; As, Ba, TBA, Cd, Cr, Pb, Se, Zn, Hg. Full 298 include EC, SAR, ESP, CE, G, N, H, S, 2018, 2015, Do not end HEM O & G Aaly samples
BK-1			↓	1410	G	G			
BK-2			↓	1420	G	G			
BK-3			↓	1425	G	G			
N. Bottom Comp			11/21/14	1000	C	G			
S. Bottom Comp			11/23/14	1320	C	G			
S. Wall Comp			11/23/14	1430	C	G			

Relinquished by	Date/Time	Received by	Date/Time	Field Notes
<i>[Signature]</i>	11/23/14 0300	<i>[Signature]</i>	11/24/14 0800	
<i>[Signature]</i>	11-24-14 16:30	<i>[Signature]</i>	11-24-14 19:30	Received at lab on ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: <b>0.8C</b>

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

8301 Innovation Drive, Suite 115 Daleville, IN 47334-0599 USA P 765-378-4100 F 765-378-4100

829 Washington St. Suite 300 Columbus, IN 47201-6231 USA P 812-375-0531 F 812-375-0731

2121 East Washington Boulevard Fort Wayne, IN 48003-1328 USA P 260-471-7000 F 260-471-7777

560 South Zimmer Road Warsaw, IN 46580-2368 USA P 574-287-3305 F 574-268-6989

3371 Cleveland Road, Suite 100A South Bend, IN 46626-9780 USA P 574-277-0707 F 574-273-4689

2417 W Pinhook Rd Lafayette, LA 70508-3344 USA P 337-335-0483 F 337-333-0548



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Website: [www.element.com](http://www.element.com)

October 31, 2014

Greg Miller  
ICON Environmental Services  
2049 Commercial Drive  
Port Allen, LA 70767  
TEL: (225) 344-8490  
FAX

RE: VPSB East White Lake 9077-041-0100

Order No.: 14100746

Dear Greg Miller:

Element Materials Technology Lafayette, LLC received 17 sample(s) on 10/14/2014 for the analyses presented in the following report.

In accordance with your instructions Element Lafayette conducted the analysis shown on the following pages on samples submitted by your company. The results related only to the items tested. Unless otherwise noted, all analyses were conducted using EPA approved methodologies and all test results meet all requirements of TNI. All relevant sampling information is on the attached Chain-of-Custody form.

All soil data, except for 29-B, are on a wet-weight basis unless otherwise indicated in the units field as –dry.

LELAP Certification No.: 01997. A scope of accredited parameters is available upon request. A "#" by the test method or analyte indicates this parameter is outside the scope of accreditation.

Estimated uncertainty is available upon request. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in blue ink that reads 'Annie Reedy'.

Annie Reedy  
Manager, Analytical Services  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344



Element Materials Technology Lafayette  
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## Case Narrative

WO#: 14100746  
Date: 10/31/2014

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**CLIENT:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

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Unless specified by the client, a duplicate or MS/MSD, wherever applicable, is randomly selected and analyzed from each analytical batch provided sample volume is sufficient. The sample chosen for duplicate or MS/MSD may or may not be a sample submitted in this workorder. A method blank and/or a lab control sample (LCS)/lab control sample duplicate (LCSD), wherever applicable, are processed as a quality control check for each analytical batch. When the matrix QC data is not available due to insufficient sample volume or when the results indicate possible matrix effect, the validity of the batch is determined by the method blank and LCS/LCSD.

Due to limited sample, CEC, ESP & pH were cancelled for Lab IDs 14100746-010 & 015, and EC, CEC, SAR, ESP & pH were cancelled for Lab IDs 14100746-013 & 017.

The results of the laboratory internal quality control data are provided in the QC Summary Report section of the report for your review. Laboratory-related QC exceptions that may impact the validity of data are discussed in the case narrative. Sample-related QC exceptions are flagged either in the results page(s) or in the QC report page(s). End users should consider QC exceptions when evaluating sample data against data quality objectives.



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 11:15:00 AM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-001 **Matrix:** SOIL  
**Client Sample ID** DEL-1 (0-3')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	72.3	0.1		meq/100g	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	1.59	0.10		mmhos/cm	1	10/24/2014 1:01:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	1.6	0.1		%	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.38	0.05		% dry wt	1	10/28/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	3.53	1.68	C	S.U.	1	10/24/2014 12:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	35.9	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	6.16	0.100			1	10/27/2014
Soluble Calcium	2.41	1.00		meq/L	1	10/27/2014
Soluble Magnesium	2.39	1.00		meq/L	1	10/27/2014
Soluble Sodium	9.54	1.00		meq/L	1	10/27/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	372	200		mg/Kg	10	10/24/2014 10:09:00 PM
TPH (Oil Range)	513	500		mg/Kg	10	10/24/2014 10:09:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 11:15:00 AM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-001 **Matrix:** SOIL  
**Client Sample ID** DEL-1 (0-3')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
Surr: 4-Terphenyl-d14	124	33 - 152		%REC	10	10/24/2014 10:09:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.18	0.10		mg/Kg-dry	1	10/25/2014 11:16:16 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.78	1.00		mg/Kg-dry	1	10/23/2014 10:03:52 PM
Barium	762	1.00		mg/Kg-dry	1	10/23/2014 10:03:52 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:03:52 PM
Chromium	11.4	1.00		mg/Kg-dry	1	10/23/2014 10:03:52 PM
Lead	18.3	1.00		mg/Kg-dry	1	10/23/2014 10:03:52 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	10/23/2014 10:03:52 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:03:52 PM
Strontium	63.1	1.00		mg/Kg-dry	1	10/23/2014 10:03:52 PM
Zinc	48.6	1.00		mg/Kg-dry	1	10/23/2014 10:03:52 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	1,140	46		mg/Kg-dry	1	10/24/2014 1:10:06 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 11:20:00 AM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-002 **Matrix:** SOIL  
**Client Sample ID** DEL-1 (3.5-4.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	51.0	0.1		meq/100g	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	6.79	0.10	*	mmhos/cm	1	10/24/2014 1:01:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	7.9	0.1		%	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	1.38	0.05	*	% dry wt	1	10/28/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	4.96	1.68	C	S.U.	1	10/24/2014 12:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	37.2	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	15.9	0.100	*		1	10/27/2014
Soluble Calcium	9.96	1.00		meq/L	1	10/27/2014
Soluble Magnesium	10.3	1.00		meq/L	1	10/27/2014
Soluble Sodium	50.7	1.00		meq/L	1	10/27/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	4,600	1,000		mg/Kg	50	10/27/2014 7:41:00 PM
TPH (Oil Range)	1,980	250		mg/Kg	50	10/27/2014 7:41:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 11:20:00 AM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-002 **Matrix:** SOIL  
**Client Sample ID** DEL-1 (3.5-4.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	50	10/27/2014 7:41:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.27	0.10		mg/Kg-dry	1	10/25/2014 11:24:30 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.57	0.99		mg/Kg-dry	1	10/23/2014 10:15:13 PM
Barium	821	0.99		mg/Kg-dry	1	10/23/2014 10:15:13 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:15:13 PM
Chromium	9.81	0.99		mg/Kg-dry	1	10/23/2014 10:15:13 PM
Lead	17.7	0.99		mg/Kg-dry	1	10/23/2014 10:15:13 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	10/23/2014 10:15:13 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:15:13 PM
Strontium	97.8	0.99		mg/Kg-dry	1	10/23/2014 10:15:13 PM
Zinc	76.0	0.99		mg/Kg-dry	1	10/23/2014 10:15:13 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	1,460	46		mg/Kg-dry	1	10/24/2014 1:13:27 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
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	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 11:25:00 AM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-003 **Matrix:** SOIL  
**Client Sample ID** DEL-1 (4.5-5.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	52.6	0.1		meq/100g	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	6.43	0.10	*	mmhos/cm	1	10/24/2014 1:02:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	12.2	0.1		%	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.18	0.05		% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	5.57	1.68	C	S.U.	1	10/24/2014 12:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	41.0	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	21.0	0.100	*		1	10/27/2014
Soluble Calcium	5.09	1.00		meq/L	1	10/27/2014
Soluble Magnesium	7.22	1.00		meq/L	1	10/27/2014
Soluble Sodium	52.2	1.00		meq/L	1	10/27/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	481	100		mg/Kg	5	10/24/2014 10:38:00 PM
TPH (Oil Range)	327	250		mg/Kg	5	10/24/2014 10:38:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 11:25:00 AM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-003 **Matrix:** SOIL  
**Client Sample ID** DEL-1 (4.5-5.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
Surr: 4-Terphenyl-d14	91.7	33 - 152		%REC	5	10/24/2014 10:38:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	10/25/2014 11:27:16 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.45	1.00		mg/Kg-dry	1	10/23/2014 10:18:46 PM
Barium	502	1.00		mg/Kg-dry	1	10/23/2014 10:18:46 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:18:46 PM
Chromium	12.3	1.00		mg/Kg-dry	1	10/23/2014 10:18:46 PM
Lead	15.9	1.00		mg/Kg-dry	1	10/23/2014 10:18:46 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	10/23/2014 10:18:46 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:18:46 PM
Strontium	69.8	1.00		mg/Kg-dry	1	10/23/2014 10:18:46 PM
Zinc	42.0	1.00		mg/Kg-dry	1	10/23/2014 10:18:46 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	922	48		mg/Kg-dry	1	10/24/2014 1:26:23 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 12:05:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-004 **Matrix:** SOIL  
**Client Sample ID** DEL-2 (6-7.25')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	63.4	0.1		meq/100g	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	7.72	0.10	*	mmhos/cm	1	10/24/2014 1:02:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	10.6	0.1		%	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	2.13	0.05	*	% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	5.79	1.68	C	S.U.	1	10/24/2014 12:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	48.8	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	23.0	0.100	*		1	10/27/2014
Soluble Calcium	6.51	1.00		meq/L	1	10/27/2014
Soluble Magnesium	7.86	1.00		meq/L	1	10/27/2014
Soluble Sodium	61.6	1.00		meq/L	1	10/27/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	5,100	2,000		mg/Kg	100	10/27/2014 7:56:00 PM
TPH (Oil Range)	2,940	500		mg/Kg	100	10/27/2014 7:56:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 12:05:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-004 **Matrix:** SOIL  
**Client Sample ID** DEL-2 (6-7.25')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	10/27/2014 7:56:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.34	0.10		mg/Kg-dry	1	10/25/2014 11:30:02 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.87	1.00		mg/Kg-dry	1	10/23/2014 10:21:59 PM
Barium	648	1.00		mg/Kg-dry	1	10/23/2014 10:21:59 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:21:59 PM
Chromium	12.6	1.00		mg/Kg-dry	1	10/23/2014 10:21:59 PM
Lead	18.5	1.00		mg/Kg-dry	1	10/23/2014 10:21:59 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	10/23/2014 10:21:59 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:21:59 PM
Strontium	119	9.96		mg/Kg-dry	10	10/23/2014 11:43:20 PM
Zinc	118	1.00		mg/Kg-dry	1	10/23/2014 10:21:59 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	1,290	48		mg/Kg-dry	1	10/24/2014 1:29:43 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 12:00:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-005 **Matrix:** SOIL  
**Client Sample ID** DEL-2 (4-5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	64.5	0.1		meq/100g	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	5.58	0.10	*	mmhos/cm	1	10/24/2014 1:02:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	6.5	0.1		%	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.44	0.05		% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	4.29	1.68	C	S.U.	1	10/24/2014 12:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	47.6	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	12.2	0.100	*		1	10/27/2014
Soluble Calcium	8.61	1.00		meq/L	1	10/27/2014
Soluble Magnesium	10.2	1.00		meq/L	1	10/27/2014
Soluble Sodium	37.3	1.00		meq/L	1	10/27/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	1,160	200		mg/Kg	10	10/24/2014 11:08:00 PM
TPH (Oil Range)	1,050	500		mg/Kg	10	10/24/2014 11:08:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 12:00:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-005 **Matrix:** SOIL  
**Client Sample ID** DEL-2 (4-5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
Surr: 4-Terphenyl-d14	146	33 - 152		%REC	10	10/24/2014 11:08:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.17	0.10		mg/Kg-dry	1	10/25/2014 11:32:49 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.91	0.99		mg/Kg-dry	1	10/23/2014 10:25:25 PM
Barium	808	0.99		mg/Kg-dry	1	10/23/2014 10:25:25 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:25:25 PM
Chromium	14.2	0.99		mg/Kg-dry	1	10/23/2014 10:25:25 PM
Lead	21.3	0.99		mg/Kg-dry	1	10/23/2014 10:25:25 PM
Selenium	< 1.98	1.98		mg/Kg-dry	1	10/23/2014 10:25:25 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:25:25 PM
Strontium	89.7	0.99		mg/Kg-dry	1	10/23/2014 10:25:25 PM
Zinc	84.1	0.99		mg/Kg-dry	1	10/23/2014 10:25:25 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	1,390	48		mg/Kg-dry	1	10/24/2014 1:33:06 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 1:20:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-006 **Matrix:** SOIL  
**Client Sample ID** DEL-3 (3-4.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	78.7	0.1		meq/100g	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	6.02	0.10	*	mmhos/cm	1	10/24/2014 1:03:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	9.3	0.1		%	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.74	0.05		% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
pH Measurement	5.21	1.68	C	S.U.	1	10/24/2014 12:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
Percent Moisture	51.7	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	19.6	0.100	*		1	10/27/2014
Soluble Calcium	5.85	1.00		meq/L	1	10/27/2014
Soluble Magnesium	7.13	1.00		meq/L	1	10/27/2014
Soluble Sodium	50.0	1.00		meq/L	1	10/27/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
TPH (Diesel Range)	1,910	200		mg/Kg	10	10/24/2014 11:22:00 PM
TPH (Oil Range)	1,130	500		mg/Kg	10	10/24/2014 11:22:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 1:20:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-006 **Matrix:** SOIL  
**Client Sample ID** DEL-3 (3-4.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
Surr: 4-Terphenyl-d14	141	33 - 152		%REC	10	10/24/2014 11:22:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.22	0.10		mg/Kg-dry	1	10/25/2014 11:40:50 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	6.07	0.99		mg/Kg-dry	1	10/23/2014 10:28:38 PM
Barium	750	0.99		mg/Kg-dry	1	10/23/2014 10:28:38 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:28:38 PM
Chromium	13.2	0.99		mg/Kg-dry	1	10/23/2014 10:28:38 PM
Lead	18.4	0.99		mg/Kg-dry	1	10/23/2014 10:28:38 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	10/23/2014 10:28:38 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:28:38 PM
Strontium	135	9.93		mg/Kg-dry	10	10/23/2014 11:46:46 PM
Zinc	69.0	0.99		mg/Kg-dry	1	10/23/2014 10:28:38 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	1,350	47		mg/Kg-dry	1	10/24/2014 1:36:28 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 1:45:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-007 **Matrix:** SOIL  
**Client Sample ID** DEL-4 (4-5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	62.7	0.1		meq/100g	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	17.0	0.10	*	mmhos/cm	1	10/24/2014 1:03:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	18.5	0.1	*	%	1	10/29/2014 3:56:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.91	0.05		% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	6.29	1.68		S.U.	1	10/24/2014 12:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	49.4	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	38.1	0.100	*		1	10/27/2014
Soluble Calcium	16.4	1.00		meq/L	1	10/27/2014
Soluble Magnesium	18.0	1.00		meq/L	1	10/27/2014
Soluble Sodium	158	1.00		meq/L	1	10/27/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	3,120	1,000		mg/Kg	50	10/27/2014 8:11:00 PM
TPH (Oil Range)	1,580	250		mg/Kg	50	10/27/2014 8:11:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 1:45:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-007 **Matrix:** SOIL  
**Client Sample ID** DEL-4 (4-5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	50	10/27/2014 8:11:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.10	0.10		mg/Kg-dry	1	10/25/2014 11:43:38 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	3.55	1.00		mg/Kg-dry	1	10/23/2014 10:31:45 PM
Barium	560	1.00		mg/Kg-dry	1	10/23/2014 10:31:45 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:31:45 PM
Chromium	25.0	1.00		mg/Kg-dry	1	10/23/2014 10:31:45 PM
Lead	28.5	1.00		mg/Kg-dry	1	10/23/2014 10:31:45 PM
Selenium	< 2.00	2.00		mg/Kg-dry	1	10/23/2014 10:31:45 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:31:45 PM
Strontium	140	9.99		mg/Kg-dry	10	10/23/2014 11:50:10 PM
Zinc	151	1.00		mg/Kg-dry	1	10/23/2014 10:31:45 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	2,270	46		mg/Kg-dry	1	10/24/2014 1:39:51 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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 Website: [www.element.com](http://www.element.com)

# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 2:10:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-008 **Matrix:** SOIL  
**Client Sample ID** DEL-5 (5-6')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	80.7	0.1		meq/100g	1	10/29/2014 4:42:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	12.5	0.10	*	mmhos/cm	1	10/28/2014 2:38:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	8.9	0.1		%	1	10/29/2014 4:42:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	2.84	0.05	*	% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
pH Measurement	6.24	1.68		S.U.	1	10/24/2014 12:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
Percent Moisture	60.9	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	25.7	0.100	*		1	10/29/2014
Soluble Calcium	16.5	1.00		meq/L	1	10/29/2014
Soluble Magnesium	23.8	1.00		meq/L	1	10/29/2014
Soluble Sodium	115	1.00		meq/L	1	10/29/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	6,200	2,000		mg/Kg	100	10/27/2014 8:26:00 PM
TPH (Oil Range)	2,880	500		mg/Kg	100	10/27/2014 8:26:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 2:10:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-008 **Matrix:** SOIL  
**Client Sample ID** DEL-5 (5-6')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%REC	100	10/27/2014 8:26:00 PM
<b>NOTES:</b>						
SD - Surrogate diluted out due to dilution.						
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.23	0.10		mg/Kg-dry	1	10/25/2014 11:46:28 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.69	1.00		mg/Kg-dry	1	10/23/2014 10:42:06 PM
Barium	802	1.00		mg/Kg-dry	1	10/23/2014 10:42:06 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:42:06 PM
Chromium	15.4	1.00		mg/Kg-dry	1	10/23/2014 10:42:06 PM
Lead	23.1	1.00		mg/Kg-dry	1	10/23/2014 10:42:06 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	10/23/2014 10:42:06 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:42:06 PM
Strontium	169	9.97		mg/Kg-dry	10	10/23/2014 11:53:15 PM
Zinc	170	1.00		mg/Kg-dry	1	10/23/2014 10:42:06 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	1,510	48		mg/Kg-dry	1	10/24/2014 1:43:15 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 2:50:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-009 **Matrix:** SOIL  
**Client Sample ID** DEL-6 (4-5.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	67.2	0.1		meq/100g	1	10/29/2014 4:42:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	5.77	0.10	*	mmhos/cm	1	10/28/2014 2:39:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	8.0	0.1		%	1	10/29/2014 4:42:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.67	0.05		% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	4.81	1.68	C	S.U.	1	10/24/2014 12:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	49.1	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	13.5	0.100	*		1	10/29/2014
Soluble Calcium	8.62	1.00		meq/L	1	10/29/2014
Soluble Magnesium	12.9	1.00		meq/L	1	10/29/2014
Soluble Sodium	44.1	1.00		meq/L	1	10/29/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	1,180	400		mg/Kg	20	10/27/2014 8:41:00 PM
TPH (Oil Range)	892	100		mg/Kg	20	10/27/2014 8:41:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 2:50:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-009 **Matrix:** SOIL  
**Client Sample ID** DEL-6 (4-5.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
Surr: 4-Terphenyl-d14	189	33 - 152	SM	%REC	20	10/27/2014 8:41:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.15	0.10		mg/Kg-dry	1	10/25/2014 11:49:19 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.21	1.00		mg/Kg-dry	1	10/23/2014 10:45:32 PM
Barium	715	1.00		mg/Kg-dry	1	10/23/2014 10:45:32 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:45:32 PM
Chromium	15.6	1.00		mg/Kg-dry	1	10/23/2014 10:45:32 PM
Lead	20.3	1.00		mg/Kg-dry	1	10/23/2014 10:45:32 PM
Selenium	< 2.00	2.00		mg/Kg-dry	1	10/23/2014 10:45:32 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:45:32 PM
Strontium	87.4	1.00		mg/Kg-dry	1	10/23/2014 10:45:32 PM
Zinc	55.8	1.00		mg/Kg-dry	1	10/23/2014 10:45:32 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	1,700	47		mg/Kg-dry	1	10/24/2014 1:46:38 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 3:45:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-010 **Matrix:** SOIL  
**Client Sample ID** DEL-7 (4.5-5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>				<b>LDNR 29-B</b>		Analyst: MXT
Electrical Conductivity	10.1	0.10	*	mmhos/cm	1	10/28/2014 2:40:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>				<b>SW9071B</b>		Analyst: MXT
HEM, Oil & Grease	1.19	0.05	*	% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>				<b>LDNR 29-B</b>		Analyst: MXT
Percent Moisture	62.2	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>				<b>LDNR 29-B 29B</b>		Analyst: STS
Sodium Adsorption Ratio	16.3	0.100	*		1	10/29/2014
Soluble Calcium	14.2	1.00		meq/L	1	10/29/2014
Soluble Magnesium	30.4	1.00		meq/L	1	10/29/2014
Soluble Sodium	76.8	1.00		meq/L	1	10/29/2014
<b>TPH-D/O IN SOIL BY SW8015</b>				<b>SW8015B</b>		Analyst: MMV
<b>TPH DRO/ORO IN SOIL BY SW8015</b>				<b>SW3550C</b>		
TPH (Diesel Range)	1,040	200		mg/Kg	10	10/25/2014 12:21:00 AM
TPH (Oil Range)	617	500		mg/Kg	10	10/25/2014 12:21:00 AM
Surr: 4-Terphenyl-d14	124	33 - 152		%REC	10	10/25/2014 12:21:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING MERCURY IN SOIL OR SLUDGE</b>				<b>29B/SW7471A</b>		Analyst: SXM
				<b>SW7471A</b>		
Mercury	0.37	0.33		mg/Kg-dry	1	10/25/2014 11:52:10 AM
<b>LA STATEWIDE ORDER 29-B TESTING METALS IN SOIL OR SLUDGE BY ICP</b>				<b>SW6010B</b>		Analyst: STS
				<b>SW3050B</b>		
Arsenic	5.83	1.00		mg/Kg-dry	1	10/23/2014 10:49:19 PM
Barium	1,480	1.00		mg/Kg-dry	1	10/23/2014 10:49:19 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:49:19 PM
Chromium	22.6	1.00		mg/Kg-dry	1	10/23/2014 10:49:19 PM
Lead	29.8	1.00		mg/Kg-dry	1	10/23/2014 10:49:19 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 3:45:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-010 **Matrix:** SOIL  
**Client Sample ID** DEL-7 (4.5-5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW6010B</b>	<b>SW3050B</b> Analyst: <b>STS</b>
Selenium	< 2.00	2.00		mg/Kg-dry	1	10/23/2014 10:49:19 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:49:19 PM
Strontium	78.2	1.00		mg/Kg-dry	1	10/23/2014 10:49:19 PM
Zinc	86.5	1.00		mg/Kg-dry	1	10/23/2014 10:49:19 PM
<b>LA STATEWIDE ORDER 29-B TESTING TRUE TOTAL BARIUM</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
True Total Barium	4,380	47		mg/Kg-dry	1	10/24/2014 6:35:20 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 3:40:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-011 **Matrix:** SOIL  
**Client Sample ID** DEL-7 (0-4.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	69.9	0.1		meq/100g	1	10/29/2014 4:42:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	8.38	0.10	*	mmhos/cm	1	10/28/2014 2:40:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	5.7	0.1		%	1	10/29/2014 4:42:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.33	0.05		% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	5.44	1.68	C	S.U.	1	10/24/2014 12:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	63.7	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	13.3	0.100	*		1	10/29/2014
Soluble Calcium	10.4	1.00		meq/L	1	10/29/2014
Soluble Magnesium	25.2	1.00		meq/L	1	10/29/2014
Soluble Sodium	56.1	1.00		meq/L	1	10/29/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	230	200		mg/Kg	10	10/25/2014 1:21:00 AM
TPH (Oil Range)	193	50.0		mg/Kg	10	10/25/2014 1:21:00 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 3:40:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-011 **Matrix:** SOIL  
**Client Sample ID** DEL-7 (0-4.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
Surr: 4-Terphenyl-d14	115	33 - 152		%REC	10	10/25/2014 1:21:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.31	0.10		mg/Kg-dry	1	10/25/2014 11:54:57 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.61	0.99		mg/Kg-dry	1	10/23/2014 10:53:12 PM
Barium	1,070	0.99		mg/Kg-dry	1	10/23/2014 10:53:12 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:53:12 PM
Chromium	15.3	0.99		mg/Kg-dry	1	10/23/2014 10:53:12 PM
Lead	22.2	0.99		mg/Kg-dry	1	10/23/2014 10:53:12 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	10/23/2014 10:53:12 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:53:12 PM
Strontium	55.4	0.99		mg/Kg-dry	1	10/23/2014 10:53:12 PM
Zinc	71.7	0.99		mg/Kg-dry	1	10/23/2014 10:53:12 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	3,790	49		mg/Kg-dry	1	10/24/2014 6:52:41 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 4:10:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-012 **Matrix:** SOIL  
**Client Sample ID** DEL-8 (0-4')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	60.5	0.1		meq/100g	1	10/29/2014 4:42:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	7.56	0.10	*	mmhos/cm	1	10/28/2014 2:40:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	7.8	0.1		%	1	10/29/2014 4:42:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.17	0.05		% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	5.37	1.68	C	S.U.	1	10/24/2014 12:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	61.3	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	14.5	0.100	*		1	10/29/2014
Soluble Calcium	8.73	1.00		meq/L	1	10/29/2014
Soluble Magnesium	18.9	1.00		meq/L	1	10/29/2014
Soluble Sodium	53.9	1.00		meq/L	1	10/29/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	221	200		mg/Kg	10	10/25/2014 1:36:00 AM
TPH (Oil Range)	198	50.0		mg/Kg	10	10/25/2014 1:36:00 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 4:10:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-012 **Matrix:** SOIL  
**Client Sample ID** DEL-8 (0-4')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
Surr: 4-Terphenyl-d14	123	33 - 152		%REC	10	10/25/2014 1:36:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	< 0.10	0.10		mg/Kg-dry	1	10/25/2014 11:57:41 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	4.01	0.99		mg/Kg-dry	1	10/23/2014 10:56:50 PM
Barium	1,290	0.99		mg/Kg-dry	1	10/23/2014 10:56:50 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:56:50 PM
Chromium	17.0	0.99		mg/Kg-dry	1	10/23/2014 10:56:50 PM
Lead	19.7	0.99		mg/Kg-dry	1	10/23/2014 10:56:50 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	10/23/2014 10:56:50 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 10:56:50 PM
Strontium	59.7	0.99		mg/Kg-dry	1	10/23/2014 10:56:50 PM
Zinc	58.9	0.99		mg/Kg-dry	1	10/23/2014 10:56:50 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	2,510	49		mg/Kg-dry	1	10/24/2014 6:56:03 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 4:05:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-013 **Matrix:** SOIL  
**Client Sample ID** DEL-8 (4-4.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>				<b>SW9071B</b>	Analyst: <b>MXT</b>	
HEM, Oil & Grease	0.38	0.05		% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>				<b>LDNR 29-B</b>	Analyst: <b>MXT</b>	
Percent Moisture	61.6	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>TPH-D/O IN SOIL BY SW8015 TPH DRO/ORO IN SOIL BY SW8015</b>				<b>SW8015B</b>	<b>SW3550C</b>	Analyst: <b>MMV</b>
TPH (Diesel Range)	736	200		mg/Kg	10	10/25/2014 1:51:00 AM
TPH (Oil Range)	453	50.0		mg/Kg	10	10/25/2014 1:51:00 AM
Surr: 4-Terphenyl-d14	142	33 - 152		%REC	10	10/25/2014 1:51:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING MERCURY IN SOIL OR SLUDGE</b>				<b>29B/SW7471A</b>	<b>SW7471A</b>	Analyst: <b>SXM</b>
Mercury	0.19	0.10		mg/Kg-dry	1	10/25/2014 12:00:24 PM
<b>LA STATEWIDE ORDER 29-B TESTING METALS IN SOIL OR SLUDGE BY ICP</b>				<b>SW6010B</b>	<b>SW3050B</b>	Analyst: <b>STS</b>
Arsenic	5.60	1.00		mg/Kg-dry	1	10/23/2014 11:00:37 PM
Barium	1,640	1.00		mg/Kg-dry	1	10/23/2014 11:00:37 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 11:00:37 PM
Chromium	17.5	1.00		mg/Kg-dry	1	10/23/2014 11:00:37 PM
Lead	27.7	1.00		mg/Kg-dry	1	10/23/2014 11:00:37 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	10/23/2014 11:00:37 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 11:00:37 PM
Strontium	74.6	1.00		mg/Kg-dry	1	10/23/2014 11:00:37 PM
Zinc	89.7	1.00		mg/Kg-dry	1	10/23/2014 11:00:37 PM
<b>LA STATEWIDE ORDER 29-B TESTING TRUE TOTAL BARIUM</b>				<b>LDNR 29-B</b>	Analyst: <b>STS</b>	
True Total Barium	9,710	48		mg/Kg-dry	1	10/24/2014 6:59:24 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 4:25:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-014 **Matrix:** SOIL  
**Client Sample ID** DEL-9 (0-3')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	64.2	0.1		meq/100g	1	10/29/2014 4:42:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	7.86	0.10	*	mmhos/cm	1	10/28/2014 2:41:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	7.1	0.1		%	1	10/29/2014 4:42:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.24	0.05		% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PH MEASUREMENT</b>						
pH Measurement	5.48	1.68	C	S.U.	1	10/24/2014 12:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>PERCENT MOISTURE</b>						
Percent Moisture	65.6	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>						
<b>SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	12.1	0.100	*		1	10/29/2014
Soluble Calcium	8.88	1.00		meq/L	1	10/29/2014
Soluble Magnesium	25.5	1.00		meq/L	1	10/29/2014
Soluble Sodium	50.2	1.00		meq/L	1	10/29/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	232	200		mg/Kg	10	10/25/2014 2:05:00 AM
TPH (Oil Range)	188	50.0		mg/Kg	10	10/25/2014 2:05:00 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 4:25:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-014 **Matrix:** SOIL  
**Client Sample ID** DEL-9 (0-3')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	<b>SW3550C</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						Analyst: <b>MMV</b>
Surr: 4-Terphenyl-d14	127	33 - 152		%REC	10	10/25/2014 2:05:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	<b>SW7471A</b>
<b>MERCURY IN SOIL OR SLUDGE</b>						Analyst: <b>SXM</b>
Mercury	0.12	0.10		mg/Kg-dry	1	10/25/2014 12:03:07 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	<b>SW3050B</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>						Analyst: <b>STS</b>
Arsenic	4.32	1.00		mg/Kg-dry	1	10/23/2014 11:04:31 PM
Barium	1,140	1.00		mg/Kg-dry	1	10/23/2014 11:04:31 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 11:04:31 PM
Chromium	14.3	1.00		mg/Kg-dry	1	10/23/2014 11:04:31 PM
Lead	20.9	1.00		mg/Kg-dry	1	10/23/2014 11:04:31 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	10/23/2014 11:04:31 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 11:04:31 PM
Strontium	54.3	1.00		mg/Kg-dry	1	10/23/2014 11:04:31 PM
Zinc	68.5	1.00		mg/Kg-dry	1	10/23/2014 11:04:31 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	<b>SW3050B</b>
<b>TRUE TOTAL BARIUM</b>						Analyst: <b>STS</b>
True Total Barium	5,550	49		mg/Kg-dry	1	10/24/2014 7:02:47 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 4:20:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-015 **Matrix:** SOIL  
**Client Sample ID** DEL-9 (3-3.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>				<b>LDNR 29-B</b>		Analyst: MXT
Electrical Conductivity	6.07	0.10	*	mmhos/cm	1	10/28/2014 2:41:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>				<b>SW9071B</b>		Analyst: MXT
HEM, Oil & Grease	0.24	0.05		% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>				<b>LDNR 29-B</b>		Analyst: MXT
Percent Moisture	62.5	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>				<b>LDNR 29-B 29B</b>		Analyst: STS
Sodium Adsorption Ratio	10.9	0.100			1	10/29/2014
Soluble Calcium	8.01	1.00		meq/L	1	10/29/2014
Soluble Magnesium	16.4	1.00		meq/L	1	10/29/2014
Soluble Sodium	38.1	1.00		meq/L	1	10/29/2014
<b>TPH-D/O IN SOIL BY SW8015</b>				<b>SW8015B</b>		<b>SW3550C</b> Analyst: MMV
<b>TPH DRO/ORO IN SOIL BY SW8015</b>						
TPH (Diesel Range)	445	200		mg/Kg	10	10/25/2014 2:20:00 AM
TPH (Oil Range)	324	50.0		mg/Kg	10	10/25/2014 2:20:00 AM
Surr: 4-Terphenyl-d14	147	33 - 152		%REC	10	10/25/2014 2:20:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING MERCURY IN SOIL OR SLUDGE</b>				<b>29B/SW7471A</b>		<b>SW7471A</b> Analyst: SXM
Mercury	< 0.25	0.25		mg/Kg-dry	1	10/25/2014 12:05:51 PM
<b>LA STATEWIDE ORDER 29-B TESTING METALS IN SOIL OR SLUDGE BY ICP</b>				<b>SW6010B</b>		<b>SW3050B</b> Analyst: STS
Arsenic	5.67	0.99		mg/Kg-dry	1	10/23/2014 11:08:09 PM
Barium	1,570	0.99		mg/Kg-dry	1	10/23/2014 11:08:09 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 11:08:09 PM
Chromium	18.3	0.99		mg/Kg-dry	1	10/23/2014 11:08:09 PM
Lead	24.0	0.99		mg/Kg-dry	1	10/23/2014 11:08:09 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 4:20:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-015 **Matrix:** SOIL  
**Client Sample ID** DEL-9 (3-3.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW6010B</b>	<b>SW3050B</b> Analyst: <b>STS</b>
Selenium	< 1.98	1.98		mg/Kg-dry	1	10/23/2014 11:08:09 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 11:08:09 PM
Strontium	66.3	0.99		mg/Kg-dry	1	10/23/2014 11:08:09 PM
Zinc	73.5	0.99		mg/Kg-dry	1	10/23/2014 11:08:09 PM
<b>LA STATEWIDE ORDER 29-B TESTING TRUE TOTAL BARIUM</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
True Total Barium	9,140	47		mg/Kg-dry	1	10/24/2014 7:06:09 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 3:15:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-016 **Matrix:** SOIL  
**Client Sample ID** SED-15 (0-4.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING CATION EXCHANGE CAPACITY</b>						
Cation Exchange Capacity	62.0	0.1		meq/100g	1	10/29/2014 4:42:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING ELECTRICAL CONDUCTIVITY @ SPE</b>						
Electrical Conductivity	7.97	0.10	*	mmhos/cm	1	10/28/2014 2:42:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING EXCHANGEABLE SODIUM PERCENTAGE</b>						
Exchangeable Sodium %	7.1	0.1		%	1	10/29/2014 4:42:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>						
HEM, Oil & Grease	0.50	0.05		% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING PH MEASUREMENT</b>						
pH Measurement	5.52	1.68	C	S.U.	1	10/24/2014 12:15:00 PM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>						
Percent Moisture	65.0	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING SODIUM ADSORPTION RATIO</b>						
Sodium Adsorption Ratio	13.2	0.100	*		1	10/29/2014
Soluble Calcium	10.1	1.00		meq/L	1	10/29/2014
Soluble Magnesium	23.9	1.00		meq/L	1	10/29/2014
Soluble Sodium	54.2	1.00		meq/L	1	10/29/2014
<b>TPH-D/O IN SOIL BY SW8015</b>						
TPH (Diesel Range)	559	200		mg/Kg	10	10/25/2014 2:35:00 AM
TPH (Oil Range)	394	50.0		mg/Kg	10	10/25/2014 2:35:00 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14100746**

Date Reported: **10/31/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 3:15:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-016 **Matrix:** SOIL  
**Client Sample ID** SED-15 (0-4.5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN SOIL BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN SOIL BY SW8015</b>					<b>SW3550C</b>	
Surr: 4-Terphenyl-d14	132	33 - 152		%REC	10	10/25/2014 2:35:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>29B/SW7471A</b>	Analyst: <b>SXM</b>
<b>MERCURY IN SOIL OR SLUDGE</b>					<b>SW7471A</b>	
Mercury	0.24	0.10		mg/Kg-dry	1	10/25/2014 12:13:29 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
<b>METALS IN SOIL OR SLUDGE BY ICP</b>					<b>SW3050B</b>	
Arsenic	5.32	1.00		mg/Kg-dry	1	10/23/2014 11:11:43 PM
Barium	1,450	1.00		mg/Kg-dry	1	10/23/2014 11:11:43 PM
Cadmium	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 11:11:43 PM
Chromium	17.1	1.00		mg/Kg-dry	1	10/23/2014 11:11:43 PM
Lead	33.1	1.00		mg/Kg-dry	1	10/23/2014 11:11:43 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	10/23/2014 11:11:43 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 11:11:43 PM
Strontium	62.8	1.00		mg/Kg-dry	1	10/23/2014 11:11:43 PM
Zinc	127	1.00		mg/Kg-dry	1	10/23/2014 11:11:43 PM
<b>LA STATEWIDE ORDER 29-B TESTING</b>					<b>LDNR 29-B</b>	Analyst: <b>STS</b>
<b>TRUE TOTAL BARIUM</b>						
True Total Barium	7,270	49		mg/Kg-dry	1	10/24/2014 7:09:31 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14100746

Date Reported: 10/31/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 10/9/2014 3:20:00 PM  
**Project:** VPSB East White Lake 9077-041-0100  
**Lab ID:** 14100746-017 **Matrix:** SOIL  
**Client Sample ID** SED-15 (4.5-5')

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>LA STATEWIDE ORDER 29-B TESTING HEM, OIL &amp; GREASE</b>				<b>SW9071B</b>	Analyst: <b>MXT</b>	
HEM, Oil & Grease	0.43	0.05		% dry wt	1	10/29/2014 8:00:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING PERCENT MOISTURE</b>				<b>LDNR 29-B</b>	Analyst: <b>MXT</b>	
Percent Moisture	62.3	1.0		wt%	1	10/17/2014 10:45:00 AM
<b>TPH-D/O IN SOIL BY SW8015 TPH DRO/ORO IN SOIL BY SW8015</b>				<b>SW8015B</b>	<b>SW3550C</b>	Analyst: <b>MMV</b>
TPH (Diesel Range)	1,080	200		mg/Kg	10	10/25/2014 2:50:00 AM
TPH (Oil Range)	611	500		mg/Kg	10	10/25/2014 2:50:00 AM
Surr: 4-Terphenyl-d14	128	33 - 152		%REC	10	10/25/2014 2:50:00 AM
<b>LA STATEWIDE ORDER 29-B TESTING MERCURY IN SOIL OR SLUDGE</b>				<b>29B/SW7471A</b>	<b>SW7471A</b>	Analyst: <b>SXM</b>
Mercury	0.19	0.10		mg/Kg-dry	1	10/25/2014 12:16:14 PM
<b>LA STATEWIDE ORDER 29-B TESTING METALS IN SOIL OR SLUDGE BY ICP</b>				<b>SW6010B</b>	<b>SW3050B</b>	Analyst: <b>STS</b>
Arsenic	5.64	0.99		mg/Kg-dry	1	10/23/2014 11:15:17 PM
Barium	1,700	0.99		mg/Kg-dry	1	10/23/2014 11:15:17 PM
Cadmium	0.52	0.50		mg/Kg-dry	1	10/23/2014 11:15:17 PM
Chromium	21.7	0.99		mg/Kg-dry	1	10/23/2014 11:15:17 PM
Lead	36.9	0.99		mg/Kg-dry	1	10/23/2014 11:15:17 PM
Selenium	< 1.99	1.99		mg/Kg-dry	1	10/23/2014 11:15:17 PM
Silver	< 0.50	0.50		mg/Kg-dry	1	10/23/2014 11:15:17 PM
Strontium	68.5	0.99		mg/Kg-dry	1	10/23/2014 11:15:17 PM
Zinc	144	0.99		mg/Kg-dry	1	10/23/2014 11:15:17 PM
<b>LA STATEWIDE ORDER 29-B TESTING TRUE TOTAL BARIUM</b>				<b>LDNR 29-B</b>	Analyst: <b>STS</b>	
True Total Barium	5,530	47		mg/Kg-dry	1	10/24/2014 7:12:51 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13104

Sample ID	<b>14100746-013BMS-</b>	SampType: <b>MS</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/17/2014</b>	RunNo: <b>38708</b>					
Client ID:	<b>DEL-8 (4-4.5')</b>	Batch ID: <b>13104</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>10/24/2014</b>	SeqNo: <b>925303</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)	456	50.0	100.0	453.1	2.44	14.5	174				S
Surr: 4-Terphenyl-d14	3.88		3.330		116	33	152				

**NOTES:**

S - Analyte concentration in native sample was too high for accurate spike recovery(ies). The method is in control as indicated by the LCS/LCSD.

Sample ID	<b>14100746-013BMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/17/2014</b>	RunNo: <b>38708</b>					
Client ID:	<b>DEL-8 (4-4.5')</b>	Batch ID: <b>13104</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>10/24/2014</b>	SeqNo: <b>925304</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)	578	50.0	100.0	453.1	125	14.5	174	455.6	23.8	48.8	
Surr: 4-Terphenyl-d14	4.03		3.330		121	33	152		0	40	

Sample ID	<b>LCSD-D-13104</b>	SampType: <b>LCS</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/17/2014</b>	RunNo: <b>38708</b>					
Client ID:	<b>LCSS</b>	Batch ID: <b>13104</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>10/24/2014</b>	SeqNo: <b>925309</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)	88.4	20.0	100.0	0	88.4	63.4	109				
Surr: 4-Terphenyl-d14	2.78		3.330		83.5	33	152				

Sample ID	<b>LCSD-D-13104</b>	SampType: <b>LCSD</b>	TestCode: <b>8015_DO_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>10/17/2014</b>	RunNo: <b>38708</b>					
Client ID:	<b>LCSS02</b>	Batch ID: <b>13104</b>	TestNo: <b>SW8015B</b>	<b>SW3550C</b>	Analysis Date: <b>10/24/2014</b>	SeqNo: <b>925310</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13104

Sample ID	<b>LCSD-D-13104</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/17/2014</b>	RunNo:	<b>38708</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13104</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>925310</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)		88.8		20.0	100.0	0		88.8	63.4	109	88.39	0.434	17.2	
Surr: 4-Terphenyl-d14		2.84			3.330			85.2	33	152		0	40	

Sample ID	<b>LCSD-M-13104</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/17/2014</b>	RunNo:	<b>38708</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13104</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>925311</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)		99.8		50.0	100.0	0		99.8	63.9	120	92.68	7.35	16.6	
Surr: 4-Terphenyl-d14		2.82			3.330			84.6	33	152		0	40	

Sample ID	<b>LCS-M-13104</b>	SampType:	<b>LCS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/17/2014</b>	RunNo:	<b>38708</b>			
Client ID:	<b>LCSS</b>	Batch ID:	<b>13104</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>925312</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)		92.7		50.0	100.0	0		92.7	63.9	120				
Surr: 4-Terphenyl-d14		2.87			3.330			86.3	33	152				

Sample ID	<b>MB-13104</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/17/2014</b>	RunNo:	<b>38708</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13104</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>925313</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)		< 5.00		5.00										

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13104

Sample ID	<b>MB-13104</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/17/2014</b>	RunNo:	<b>38708</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13104</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>925313</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range) < 5.00 5.00  
 Surr: 4-Terphenyl-d14 2.85 3.330 85.6 33 152

Sample ID	<b>14100746-009BMS-</b>	SampType:	<b>MS</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/17/2014</b>	RunNo:	<b>38708</b>			
Client ID:	<b>DEL-6 (4-5.5')</b>	Batch ID:	<b>13104</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>10/27/2014</b>	SeqNo:	<b>925964</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range) 1,300 400 100.0 1,181 114 23.4 123  
 Surr: 4-Terphenyl-d14 6.72 3.330 202 33 152 SM

**NOTES:**  
 S - Analyte concentration in native sample was too high for accurate spike recovery(ies). The method is in control as indicated by the laboratory control sample (LCS).

Sample ID	<b>14100746-009BMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>8015_DO_S</b>	Units:	<b>mg/Kg</b>	Prep Date:	<b>10/17/2014</b>	RunNo:	<b>38708</b>			
Client ID:	<b>DEL-6 (4-5.5')</b>	Batch ID:	<b>13104</b>	TestNo:	<b>SW8015B</b>		<b>SW3550C</b>	Analysis Date:	<b>10/27/2014</b>	SeqNo:	<b>925965</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range) 3,350 400 100.0 1,181 2,170 23.4 123 1,295 88.5 35.6 RS  
 Surr: 4-Terphenyl-d14 7.98 3.330 240 33 152 0 40 SM

**NOTES:**  
 R - High RPD due to suspected sample non-homogeneity. The method is in control as indicated by the LCS/LCSD.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
	ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13109

Sample ID	<b>MB-13109</b>	SampType:	<b>MBLK</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/21/2014</b>	RunNo:	<b>38671</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13109</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924059</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		< 50		50							

Sample ID	<b>LCS-13109</b>	SampType:	<b>LCS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/21/2014</b>	RunNo:	<b>38671</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13109</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924060</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		5,120		50	5,000	0	102	75	125		

Sample ID	<b>LCSD-13109</b>	SampType:	<b>LCSD</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/21/2014</b>	RunNo:	<b>38671</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13109</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924061</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		5,160		50	5,000	0	103	75	125	5,115	0 20

Sample ID	<b>14100659-023AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/21/2014</b>	RunNo:	<b>38671</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13109</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924063</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
True Total Barium		4,460		47	4,721	410	86	75	125		

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13109

Sample ID	14100659-023AMSD	SampType:	MSD	TestCode:	TTBA	Units:	mg/Kg-dry	Prep Date:	10/21/2014	RunNo:	38671		
Client ID:	ZZZZZZ	Batch ID:	13109	TestNo:	LDNR 29-B	Analysis Date:	10/24/2014	SeqNo:	924064				
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium		4,610		47	4,690	410	89	75	125	4,461	3	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



Element Materials Technology Lafayette  
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 Website: www.element.com

# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13122

Sample ID	<b>MB-13122</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/22/2014</b>	RunNo:	<b>38671</b>		
Client ID:	<b>PBS</b>	Batch ID:	<b>13122</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>10/23/2014</b>	SeqNo:	<b>924019</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		< 1.00		1.00									
Barium		< 1.00		1.00									
Cadmium		< 0.50		0.50									
Chromium		< 1.00		1.00									
Lead		< 1.00		1.00									
Selenium		< 2.00		2.00									
Silver		< 0.50		0.50									
Strontium		< 1.00		1.00									
Zinc		< 1.00		1.00									

Sample ID	<b>LCS-13122</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/22/2014</b>	RunNo:	<b>38671</b>		
Client ID:	<b>LCSS</b>	Batch ID:	<b>13122</b>	TestNo:	<b>SW6010B</b>	<b>SW3050B</b>		Analysis Date:	<b>10/23/2014</b>	SeqNo:	<b>924020</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		53.2		1.00	50.00	0	106	80	120				
Barium		50.3		1.00	50.00	0	101	80	120				
Cadmium		51.6		0.50	50.00	0	103	80	120				
Chromium		50.5		1.00	50.00	0	101	80	120				
Lead		49.0		1.00	50.00	0	98.0	80	120				
Selenium		54.9		2.00	50.00	0	110	80	120				
Silver		25.7		0.50	25.00	0	103	80	120				
Strontium		50.6		1.00	50.00	0	101	80	120				
Zinc		51.6		1.00	50.00	0	103	80	120				

**Qualifiers:**

- |   |  |  |
|---|--|--|
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| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13122

Sample ID	<b>LCSD-13122</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/22/2014</b>	RunNo:	<b>38671</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13122</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>10/23/2014</b>	SeqNo:	<b>924023</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	53.2	1.00	50.00	0	106	80	120	53.15	0.17	20	
Barium	50.1	1.00	50.00	0	100	80	120	50.30	0.34	20	
Cadmium	51.6	0.50	50.00	0	103	80	120	51.65	0.19	20	
Chromium	50.3	1.00	50.00	0	101	80	120	50.47	0.34	20	
Lead	48.8	1.00	50.00	0	97.6	80	120	48.99	0.41	20	
Selenium	54.9	2.00	50.00	0	110	80	120	54.90	0.05	20	
Silver	25.7	0.50	25.00	0	103	80	120	25.72	0.04	20	
Strontium	49.8	1.00	50.00	0	99.7	80	120	50.56	1.41	20	
Zinc	51.5	1.00	50.00	0	103	80	120	51.64	0.19	20	

Sample ID	<b>14100746-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/22/2014</b>	RunNo:	<b>38671</b>
Client ID:	<b>DEL-1 (0-3')</b>	Batch ID:	<b>13122</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>10/23/2014</b>	SeqNo:	<b>924023</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	61.6	1.00	49.87	5.78	112	75	125				
Barium	810	1.00	49.87	762.3	95.6	75	125				
Cadmium	54.3	0.50	49.87	0.13	109	75	125				
Chromium	67.0	1.00	49.87	11.38	111	75	125				
Lead	70.9	1.00	49.87	18.30	105	75	125				
Selenium	48.0	1.99	49.87	0	96.3	75	125				
Silver	21.4	0.50	24.93	0	85.8	75	125				
Zinc	102	1.00	49.87	48.55	106	75	125				

**Qualifiers:**

- |   |  |  |
|---|--|--|
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| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13122

Sample ID	<b>14100746-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/22/2014</b>	RunNo:	<b>38671</b>
Client ID:	<b>DEL-1 (0-3')</b>	Batch ID:	<b>13122</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>10/23/2014</b>	SeqNo:	<b>924026</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	60.7	1.00	49.83	5.78	110	75	125	61.60	1.42	20	
Barium	807	1.00	49.83	762.3	90.0	75	125	810.0	0.35	20	
Cadmium	54.1	0.50	49.83	0.13	108	75	125	54.32	0.38	20	
Chromium	66.7	1.00	49.83	11.38	111	75	125	66.98	0.44	20	
Lead	70.8	1.00	49.83	18.30	105	75	125	70.89	0.14	20	
Selenium	49.3	1.99	49.83	0	99.0	75	125	48.03	2.67	20	
Silver	21.2	0.50	24.92	0	85.1	75	125	21.39	0.87	20	
Zinc	101	1.00	49.83	48.55	106	75	125	101.6	0.46	20	

Sample ID	<b>14100746-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/22/2014</b>	RunNo:	<b>38671</b>
Client ID:	<b>DEL-1 (0-3')</b>	Batch ID:	<b>13122</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>10/23/2014</b>	SeqNo:	<b>924050</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Strontium	120	9.97	49.87	63.08	114	75	125				

Sample ID	<b>14100746-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/22/2014</b>	RunNo:	<b>38671</b>
Client ID:	<b>DEL-1 (0-3')</b>	Batch ID:	<b>13122</b>	TestNo:	<b>SW6010B</b>		<b>SW3050B</b>	Analysis Date:	<b>10/23/2014</b>	SeqNo:	<b>924051</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Strontium	125	9.97	49.83	63.08	124	75	125	119.9	3.93	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
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| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13134

Sample ID	<b>MB-13134</b>	SampType:	<b>MBLK</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2014</b>	RunNo:	<b>38692</b>			
Client ID:	<b>PBS</b>	Batch ID:	<b>13134</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924948</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium		< 50		50										

Sample ID	<b>LCS-13134</b>	SampType:	<b>LCS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2014</b>	RunNo:	<b>38692</b>			
Client ID:	<b>LCSS</b>	Batch ID:	<b>13134</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924949</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium		5,280		50	5,000	0		106	75	125				

Sample ID	<b>LCSD-13134</b>	SampType:	<b>LCSD</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2014</b>	RunNo:	<b>38692</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13134</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924950</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium		5,340		50	5,000	0		107	75	125	5,285	1	20	

Sample ID	<b>14100746-010AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>TTBA</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/23/2014</b>	RunNo:	<b>38692</b>			
Client ID:	<b>DEL-7 (4.5-5')</b>	Batch ID:	<b>13134</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924955</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium		8,820		48	4,836	4,379		92	75	125				

**Qualifiers:**

- |   |  |  |
|---|--|--|
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| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13134

Sample ID	14100746-010AMSD	SampType:	MSD	TestCode:	TTBA	Units:	mg/Kg-dry	Prep Date:	10/23/2014	RunNo:	38692		
Client ID:	DEL-7 (4.5-5')	Batch ID:	13134	TestNo:	LDNR 29-B			Analysis Date:	10/24/2014	SeqNo:	924956		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium		8,950		47	4,730	4,379	97	75	125	8,825	1	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13159

Sample ID	14100727-001ADUP	SampType:	DUP	TestCode:	ESP_S	Units:	%	Prep Date:	10/23/2014	RunNo:	38809		
Client ID:	ZZZZZZ	Batch ID:	13159	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	10/29/2014	SeqNo:	928597		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Exchangeable Sodium %	0.8	0.1								0.8	1.5	20
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**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13160

Sample ID	14100727-001ADUP	SampType:	DUP	TestCode:	CEC	Units:	meq/100g	Prep Date:	10/23/2014	RunNo:	38808
Client ID:	ZZZZZZ	Batch ID:	13160	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	10/29/2014	SeqNo:	928576
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		19.6		0.1						18.9	3.7 20

Sample ID	LCS-13160	SampType:	LCS	TestCode:	CEC	Units:	meq/100g	Prep Date:	10/23/2014	RunNo:	38808
Client ID:	LCSS	Batch ID:	13160	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	10/29/2014	SeqNo:	929107
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		22.6		0.1	25.0	0	90.3	76	124		

Sample ID	LCSD-13160	SampType:	LCSD	TestCode:	CEC	Units:	meq/100g	Prep Date:	10/23/2014	RunNo:	38808
Client ID:	LCSS02	Batch ID:	13160	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	10/29/2014	SeqNo:	929108
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		21.9		0.1	25.0	0	87.6	76	124	22.6	3.1 20

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13164

Sample ID	<b>MB-13164</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/24/2014</b>	RunNo:	<b>38695</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>13164</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>10/25/2014</b>	SeqNo:	<b>924993</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury < 0.10 0.10

Sample ID	<b>LCS-13164</b>	SampType:	<b>LCS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/24/2014</b>	RunNo:	<b>38695</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13164</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>10/25/2014</b>	SeqNo:	<b>924994</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 0.88 0.10 0.83 0 106 80 120

Sample ID	<b>LCSD-13164</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/24/2014</b>	RunNo:	<b>38695</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13164</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>10/25/2014</b>	SeqNo:	<b>924995</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 0.88 0.10 0.83 0 106 80 120 0.88 0.29 20

Sample ID	<b>14100746-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HG_S_29B</b>	Units:	<b>mg/Kg-dry</b>	Prep Date:	<b>10/24/2014</b>	RunNo:	<b>38695</b>
Client ID:	<b>DEL-1 (0-3')</b>	Batch ID:	<b>13164</b>	TestNo:	<b>29B/SW7471 SW7471A</b>	Analysis Date:	<b>10/25/2014</b>	SeqNo:	<b>924997</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Mercury 0.92 0.10 0.81 0.18 90.7 75 125

**Qualifiers:**

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13164

Sample ID	14100746-001AMSD	SampType:	MSD	TestCode:	HG_S_29B	Units:	mg/Kg-dry	Prep Date:	10/24/2014	RunNo:	38695		
Client ID:	DEL-1 (0-3')	Batch ID:	13164	TestNo:	29B/SW7471	SW7471A		Analysis Date:	10/25/2014	SeqNo:	924998		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury		0.91		0.10	0.83	0.18	88.6	75	125	0.92	0.26	20	
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**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13187

Sample ID	14100727-001ADUP	SampType:	DUP	TestCode:	SAR_S	Units:		Prep Date:	10/24/2014	RunNo:	38728
Client ID:	ZZZZZZ	Batch ID:	13187	TestNo:	LDNR 29-B	29B		Analysis Date:	10/27/2014	SeqNo:	925896
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium Adsorption Ratio	1.27	0.100						1.422	11.3	20	
Soluble Calcium	1.47	1.00						1.477	0.712	20	
Soluble Magnesium	< 1.00	1.00						0	0	20	
Soluble Sodium	1.31	1.00						1.479	11.9	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13204

Sample ID	14100768-001ADUP	SampType:	DUP	TestCode:	SAR_S	Units:		Prep Date:	10/27/2014	RunNo:	38812
Client ID:	ZZZZZZ	Batch ID:	13204	TestNo:	LDNR 29-B	29B		Analysis Date:	10/29/2014	SeqNo:	929050
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium Adsorption Ratio	44.7	0.100						45.35	1.41	20	*
Soluble Calcium	< 1.00	1.00						0	0	20	
Soluble Magnesium	< 1.00	1.00						0	0	20	
Soluble Sodium	37.7	1.00						39.08	3.52	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13217

Sample ID	14100768-001ADUP	SampType:	DUP	TestCode:	ESP_S	Units:	%	Prep Date:	10/28/2014	RunNo:	38823		
Client ID:	ZZZZZZ	Batch ID:	13217	TestNo:	LDNR 29-B	LDNR 29-B		Analysis Date:	10/29/2014	SeqNo:	929205		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Exchangeable Sodium %		34.1		0.1						29.9	13.1	20	*

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** 13219

Sample ID	<b>14100768-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>CEC</b>	Units:	<b>meq/100g</b>	Prep Date:	<b>10/28/2014</b>	RunNo:	<b>38810</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>13219</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>10/29/2014</b>	SeqNo:	<b>928612</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		59.5		0.1						64.6	8.2 20

Sample ID	<b>LCS-13219</b>	SampType:	<b>LCS</b>	TestCode:	<b>CEC</b>	Units:	<b>meq/100g</b>	Prep Date:	<b>10/28/2014</b>	RunNo:	<b>38810</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>13219</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>10/29/2014</b>	SeqNo:	<b>928625</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		21.5		0.1	25.0	0	86.0	76	124		

Sample ID	<b>LCSD-13219</b>	SampType:	<b>LCSD</b>	TestCode:	<b>CEC</b>	Units:	<b>meq/100g</b>	Prep Date:	<b>10/28/2014</b>	RunNo:	<b>38810</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>13219</b>	TestNo:	<b>LDNR 29-B</b>	<b>LDNR 29-B</b>		Analysis Date:	<b>10/29/2014</b>	SeqNo:	<b>928626</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Cation Exchange Capacity		21.1		0.1	25.0	0	84.3	76	124	21.5	2.0 20

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** R38621

Sample ID	14100727-001ADUP	SampType:	DUP	TestCode:	PMOIST	Units:	wt%	Prep Date:		RunNo:	38621		
Client ID:	ZZZZZZ	Batch ID:	R38621	TestNo:	LDNR 29-B			Analysis Date:	10/17/2014	SeqNo:	922919		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture		16.4		1.0						16.0	2.5	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** R38673

Sample ID	<b>LCS-R38673</b>	SampType:	<b>LCS</b>	TestCode:	<b>PH_S</b>	Units:	<b>S.U.</b>	Prep Date:		RunNo:	<b>38673</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R38673</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924137</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

pH Measurement 6.97 1.68 7.00 0 99.6 97.14 102.86

Sample ID	<b>14100727-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>PH_S</b>	Units:	<b>S.U.</b>	Prep Date:		RunNo:	<b>38673</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R38673</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924141</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

pH Measurement 6.97 1.68 7.03 0.86 20

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** R38676

Sample ID	<b>14100727-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>38676</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R38676</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924205</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Electrical Conductivity		0.33		0.10						0.34	3.32 20

Sample ID	<b>R38676LCS1</b>	SampType:	<b>LCS1</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>38676</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R38676</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924216</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Electrical Conductivity		0.42		0.10	0.41	0	102	89.49	110.51		

Sample ID	<b>R38676LCS2</b>	SampType:	<b>LCS2</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>38676</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R38676</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924217</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Electrical Conductivity		51.4		0.10	53.00	0	97.0	90	110		

Sample ID	<b>MB-R38676</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>38676</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R38676</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/24/2014</b>	SeqNo:	<b>924218</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Electrical Conductivity		< 0.10		0.10							

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** R38729

Sample ID	<b>MB-R38729</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>38729</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R38729</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>10/28/2014</b>	SeqNo:	<b>926863</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

< 0.05 0.05

Sample ID	<b>LCS-R38729</b>	SampType:	<b>LCS</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>38729</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R38729</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>10/28/2014</b>	SeqNo:	<b>926864</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

0.22 0.05 0.20 0 111 70 130

Sample ID	<b>LCSD-R38729</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>38729</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R38729</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>10/28/2014</b>	SeqNo:	<b>926865</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

0.23 0.05 0.20 0 113 70 130 0.22 2.23 40

Sample ID	<b>14100647-021BMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>38729</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R38729</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>10/28/2014</b>	SeqNo:	<b>926866</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

0.48 0.05 0.37 0.10 103 70 130

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- PL Permit Limit
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- C Value is below Minimum Compound Limit.
- M Matrix Interference
- P Second column confirmation exceeds
- RL Reporting Detection Limit



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** R38729

Sample ID	<b>14100647-021BDUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>38729</b>		
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R38729</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>10/28/2014</b>	SeqNo:	<b>926867</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
HEM, Oil & Grease		0.08		0.05						0.10	13.3	40	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** R38757

Sample ID	<b>MB-R38757</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>38757</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R38757</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/28/2014</b>	SeqNo:	<b>926486</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity	< 0.10	0.10									
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Sample ID	<b>R38757LCS1</b>	SampType:	<b>LCS1</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>38757</b>
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R38757</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/28/2014</b>	SeqNo:	<b>926487</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity	0.42	0.10	0.41	0	102	89.49	110.51				
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Sample ID	<b>R38757LCS2</b>	SampType:	<b>LCS2</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>38757</b>
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R38757</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/28/2014</b>	SeqNo:	<b>926488</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity	49.8	0.10	53.00	0	94.0	90	110				
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Sample ID	<b>14100768-001ADUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>EC_S</b>	Units:	<b>mmhos/cm</b>	Prep Date:		RunNo:	<b>38757</b>
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R38757</b>	TestNo:	<b>LDNR 29-B</b>			Analysis Date:	<b>10/28/2014</b>	SeqNo:	<b>926497</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Electrical Conductivity	4.06	0.10								4.20	3.39	20	*
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**Qualifiers:**

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits		



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 Website: [www.element.com](http://www.element.com)

# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** R38824

Sample ID	<b>MB-R38824</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>38824</b>
Client ID:	<b>PBS</b>	Batch ID:	<b>R38824</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>10/29/2014</b>	SeqNo:	<b>929223</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

< 0.05 0.05

Sample ID	<b>LCS-R38824</b>	SampType:	<b>LCS</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>38824</b>
Client ID:	<b>LCSS</b>	Batch ID:	<b>R38824</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>10/29/2014</b>	SeqNo:	<b>929224</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

0.22 0.05 0.20 0 112 70 130

Sample ID	<b>LCSD-R38824</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>38824</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R38824</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>10/29/2014</b>	SeqNo:	<b>929225</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

0.21 0.05 0.20 0 104 70 130 0.22 7.67 40

Sample ID	<b>14100659-014AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HEM_S</b>	Units:	<b>% dry wt</b>	Prep Date:		RunNo:	<b>38824</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R38824</b>	TestNo:	<b>SW9071B</b>			Analysis Date:	<b>10/29/2014</b>	SeqNo:	<b>929226</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

HEM, Oil & Grease

1.67 0.05 1.02 0.26 139 70 130 S

**NOTES:**

S - Spike recovery indicates matrix interference. The method is in control as indicated by the Lab Control Sample.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
	ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 14100746  
 31-Oct-14

**Client:** ICON Environmental Services  
**Project:** VPSB East White Lake 9077-041-0100

**BatchID:** R38824

Sample ID	14100659-014ADUP	SampType:	DUP	TestCode:	HEM_S	Units:	% dry wt	Prep Date:		RunNo:	38824		
Client ID:	ZZZZZZ	Batch ID:	R38824	TestNo:	SW9071B			Analysis Date:	10/29/2014	SeqNo:	929227		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
HEM, Oil & Grease		0.23		0.05						0.26	10.3	40	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |








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# Sample Log-In Check List

Client Name: **ICON\_ENV** Work Order Number: **14100746** RcptNo: **1**

Logged by:	<b>Rhonda David</b>	<b>10/14/2014 2:30:00 PM</b>	
Completed By:	<b>Rhonda David</b>	<b>10/14/2014 3:27:58 PM</b>	
Reviewed By:	<b>Caitlin Duplantis</b>	<b>10/17/2014 12:19:01 PM</b>	

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Element

### Log In

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 Custody seals intact on shipping container/cooler? Yes  No  Not Present   
 No. Seal Date: Signed By:  
 5. Was an attempt made to cool the samples? Yes  No  NA   
 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
 7. Sample(s) in proper container(s)? Yes  No   
 8. Sufficient sample volume for indicated test(s)? Yes  No   
 9. Are samples (except VOA and ONG) properly preserved? Yes  No   
 10. Was preservative added to bottles? Yes  No  NA   
 11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  No VOA Vials   
 12. Were any sample containers received broken? Yes  No   
 13. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)  
 14. Are matrices correctly identified on Chain of Custody? Yes  No   
 15. Is it clear what analyses were requested? Yes  No   
 16. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:  
 Improper error correction(s) made by client  
 Corrected quantity on COC as per samples received.

### Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Not Present			



element

Chain of Custody

Laboratory Number:

14100746

Client Information: ICon Environmental  
 Billing Information: SAME  
 PO Number:  
 Quote Number:  
 Required QC Level:  
 Bill Monthly:  Yes  No  
 Shipping Method: UPS / FedEx / Airborne  
 DHL / Express / Hand / Mail

Company Name: ICon Environmental  
 Address: 2044 Commercial Dr  
 City, State Zip: P.A. LA 70767  
 Phone Number: 225 344 8498  
 Fax Number:  
 E-mail Address:

Project Name/Number: NPS B East  
 White Lake 9017-041-0100  
 Sampler's Signature: [Signature]  
 Shipping Method: UPS / FedEx / Airborne  
 DHL / Express / Hand / Mail

Matrix Code: DW = Drinking Water  
 WW = Waste Water  
 GW = Groundwater  
 AQ = Aqueous  
 OT = Other  
 SL = Sludge  
 O = Oil  
 F = Fossil  
 NG = Natural Gas  
 NGL = Natural Gas Liquid  
 PW = Produced Water  
 CF = Completion Fluid

Sample ID/Description	Turn Time		Which Regulations Apply: <input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USDA/FDA <input type="checkbox"/> RCAP/RISC	Collection Information		Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container Type G=Glass, V=Vial P=Plastic	Pres. HCL, HNO3, H2SO4 NaOH, Na2S2O8	Requested Tests	Comments
	Date	Time		Date	Time					
DEL-1 (0-3')	10/9/14	1115	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> RUSH	G	50%		G	NONE	X Full 29B X 5r X TPH D + (0-5)	Priority: 1 Metals 2 O+G 3 TPH D+O
DEL-1 (3.5-4.5')		1220	<input type="checkbox"/> Standard <input type="checkbox"/> RUSH							
DEL-1 (4.5-5.5')		1125	<input type="checkbox"/> Standard <input type="checkbox"/> RUSH							
DEL-2 (6-7.25')		1225	<input type="checkbox"/> Standard <input type="checkbox"/> RUSH							
DEL-2 (4-5')		1200	<input type="checkbox"/> Standard <input type="checkbox"/> RUSH							
DEL-3 (3-4.5')		1320	<input type="checkbox"/> Standard <input type="checkbox"/> RUSH							
DEL-4 (4-5')		1345	<input type="checkbox"/> Standard <input type="checkbox"/> RUSH							
DEL-5 (5-6')		1410	<input type="checkbox"/> Standard <input type="checkbox"/> RUSH							
DEL-6 (4-5.5')		1450	<input type="checkbox"/> Standard <input type="checkbox"/> RUSH							

Relinquished by	Date/Time	Received by	Date/Time	Field Notes
[Signature]	10/14/14 1305	[Signature]	10-14-14 1305	
[Signature]	10-14-14 1430	[Signature]	10-14-14 1430	Received at lab on ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 2.6 °C

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

8301 Innovation Drive, Suite 116  
 Delaware, IN 47334-0569 USA  
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629 Washington St, Suite 300  
 Columbus, IN 47201-6231 USA  
 P 812-375-6531 F 812-375-6731

2121 East Washington Boulevard  
 Fort Wayne, IN 46803-1328 USA  
 P 260-471-7000 F 260-471-7777

260 South Zimmer Road  
 Warsaw, IN 46580-2268 USA  
 P 574-277-0707 F 574-269-6983

3371 Cleveland Road, Suite 100A  
 South Bend, IN 46628-9788 USA  
 P 574-277-0707 F 574-273-8699

2417 W. Pinhook Rd  
 Lafayette, LA 70506-3344 USA  
 P 337-233-0483 F 337-233-6540



Chain of Custody

Laboratory Number: 14100746

Client Information: **ICAN Environmental**  
 Contact Name: **Greg M.**  
 Address: **2099 Commercial**  
 City, State Zip: **P.A., LA 70767**  
 Phone Number: **225 344 8490**  
 Fax Number:  
 E-mail Address:

Billing Information:  
 PO Number:  
 Quote Number:  
 Required OC Level:  
 Bill Monthly:  Yes  No  
 Ext:  
 Shipping Method:  
 LPS / FedEx / Airborne  
 DHL / Element / Hand / Mail

Project Name/Number: **VPSB East White Lake**  
 Sampler's Signature: **[Signature]**  
 Matrix Code: **2 of 2**

DW = Drinking Water  
 WW = Waste Water  
 GW = Ground Water  
 AQ = Aqueous  
 OT = Other  
 SL = Sludge SOL = Solid  
 O = Oil SO = Soil  
 F = Food SW = Swab  
 NGL = Natural Gas  
 PW = Produced Water  
 CF = Completion Fluid

Sample ID/Description	Which Regulations Apply: <input type="checkbox"/> RCRA <input type="checkbox"/> Drinking Water <input type="checkbox"/> POTW <input type="checkbox"/> Distribution <input type="checkbox"/> NPDOS <input type="checkbox"/> Special <input type="checkbox"/> USDA/FDA <input type="checkbox"/> State <input type="checkbox"/> RECAP/RISC <input type="checkbox"/> Other	Turn Time <input type="checkbox"/> Standard <input type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> Other	Collection Information			Rush turn times will incur a surcharge and must be pre-approved by (lab.)	Container Type P=Plastic, V=Vial	Pres. HCL, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> NaOH, Na <sub>2</sub> SO <sub>4</sub>	Requested Tests	Comments	
			Date		Time						Matrix
			Date	Time	Composite						
DEL-7 (4.5-5')			10/9/14	1535	G	2	None	Full 29B	Priority: ① Metals ② O+G ③ TPH-D+O Metals Dry Weight Add 5 portions		
DEL-7 (0-4.5')			10/9/14	1540	G	2	None	5r			
DEL-8 (0-4')			10/9/14	1610	G	2	None				
DEL-8 (4-4.5')			10/9/14	1605	G	2	None				
DEL-9 (0-3')			10/9/14	1625	G	2	None				
DEL-9 (3-3.5')			10/9/14	1620	G	2	None				
SED-15 (0-4.5')			10/9/14	1535	G	2	None				
SED-15 (4.5-5')			10/9/14	1530	G	2	None				

Relinquished by	Date/Time	Received by	Date/Time	Field Notes
[Signature]	10-14-14 1305	[Signature]	10-14-14 1705	Received at lab on ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 2.6 °C
[Signature]	10-14-14 1430	[Signature]	10-14-14 1430	

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

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Website: [www.element.com](http://www.element.com)

May 05, 2014

Greg Miller  
ICON Environmental Services  
2049 Commercial Drive  
Port Allen, LA 70767  
TEL: (225) 344-8490  
FAX (225) 344-8490

RE: East White Lake 9077-041-0800

Order No.: 14041039

Dear Greg Miller:

Element Materials Technology Lafayette, LLC received 3 sample(s) on 4/21/2014 for the analyses presented in the following report.

In accordance with your instructions Element Lafayette conducted the analysis shown on the following pages on samples submitted by your company. The results related only to the items tested. Unless otherwise noted, all analyses were conducted using EPA approved methodologies and all test results meet all requirements of TNI. All relevant sampling information is on the attached Chain-of-Custody form.

All soil data, except for 29-B, are on a wet-weight basis unless otherwise indicated in the units field as –dry.

LELAP Certification No.: 01997. A scope of accredited parameters is available upon request. A "#" by the test method or analyte indicates this parameter is outside the scope of accreditation.

Estimated uncertainty is available upon request. This report shall not be reproduced except in full, without the written approval of the laboratory.

If you have any questions regarding these test results, please feel free to call.

A handwritten signature in blue ink that reads 'Annie Reedy'.

Annie Reedy  
Manager, Analytical Services  
2417 W. Pinhook Road  
Lafayette, LA 70508-3344



Element Materials Technology Lafayette  
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## Case Narrative

WO#: 14041039  
Date: 5/5/2014

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**CLIENT:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

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Unless specified by the client, a duplicate or MS/MSD, wherever applicable, is randomly selected and analyzed from each analytical batch provided sample volume is sufficient. The sample chosen for duplicate or MS/MSD may or may not be a sample submitted in this workorder. A method blank and/or a lab control sample (LCS)/lab control sample duplicate (LCSD), wherever applicable, are processed as a quality control check for each analytical batch. When the matrix QC data is not available due to insufficient sample volume or when the results indicate possible matrix effect, the validity of the batch is determined by the method blank and LCS/LCSD.

Any other exceptions associated with this report will be footnoted in the results page(s) or the QC summary page(s).

The Sulfate analysis was subcontracted to Gulf Coast Analytical Laboratories, Inc. Their report is attached in its entirety.



Element Materials Technology Lafayette  
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 Lafayette, LA 70508-3344  
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 Website: [www.element.com](http://www.element.com)

# Analytical Report

(consolidated)

WO#: **14041039**

Date Reported: **5/5/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 4/21/2014 12:00:00 PM  
**Project:** East White Lake 9077-041-0800  
**Lab ID:** 14041039-001 **Matrix:** AQUEOUS  
**Client Sample ID** Hebert

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN WATER BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN WATER BY SW8015</b>					<b>SW3510C</b>	
TPH (Diesel Range)	< 0.13	0.13		mg/L	1	4/25/2014 10:19:00 PM
TPH (Oil Range)	< 0.12	0.12		mg/L	1	4/25/2014 10:19:00 PM
Surr: 4-Terphenyl-d14	82.4	36.8 - 128		%REC	1	4/25/2014 10:19:00 PM
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH-GRO IN WATER BY SW8015</b>						
TPH (Gasoline Range)	< 0.15	0.15		mg/L	1	4/23/2014 7:07:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	98.4	70 - 130		%REC	1	4/23/2014 7:07:00 PM
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>					<b>SW8021B</b>	Analyst: <b>MMV</b>
<b>BTEX IN WATER BY SW8021</b>						
Benzene	< 0.00500	0.00500		mg/L	1	4/23/2014 7:07:00 PM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	4/23/2014 7:07:00 PM
Toluene	< 0.0100	0.0100		mg/L	1	4/23/2014 7:07:00 PM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	4/23/2014 7:07:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	89.2	70 - 130		%REC	1	4/23/2014 7:07:00 PM
<b>MERCURY IN GROUND WATER, TOTAL</b>					<b>SW7470A</b>	Analyst: <b>SXM</b>
Mercury	< 0.0002	0.0002		mg/L	1	4/24/2014 9:48:14 AM
<b>METALS IN WATER BY ICP, TOTALS</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
Arsenic	< 0.010	0.010		mg/L	1	4/25/2014 7:37:29 PM
Barium	0.214	0.010		mg/L	1	4/25/2014 7:37:29 PM
Cadmium	< 0.005	0.005		mg/L	1	4/25/2014 7:37:29 PM
Calcium	62.0	0.500		mg/L	1	4/29/2014 6:45:54 PM
Chromium	< 0.010	0.010		mg/L	1	4/25/2014 7:37:29 PM
Iron	10.8	0.010		mg/L	1	4/29/2014 2:03:30 PM
Lead	< 0.010	0.010		mg/L	1	4/25/2014 7:37:29 PM
Magnesium	41.9	0.500		mg/L	1	4/29/2014 6:45:54 PM
Manganese	1.46	0.010		mg/L	1	4/25/2014 7:37:29 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14041039**

Date Reported: **5/5/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 4/21/2014 12:00:00 PM  
**Project:** East White Lake 9077-041-0800  
**Lab ID:** 14041039-001 **Matrix:** AQUEOUS  
**Client Sample ID** Hebert

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>METALS IN WATER BY ICP, TOTALS</b>				<b>SW6010B</b>		Analyst: <b>STS</b>
Potassium	5.56	5.00		mg/L	1	4/29/2014 6:45:54 PM
Sodium	294	5.00		mg/L	1	4/29/2014 6:45:54 PM
Strontium	0.437	0.010		mg/L	1	4/25/2014 7:37:29 PM
Zinc	0.046	0.010		mg/L	1	4/25/2014 7:37:29 PM
<b>ALKALINITY; TOTAL, CARB, BICARB</b>				<b>SM2320 B</b>		Analyst: <b>TLB</b>
Alkalinity, Bicarbonate (As CaCO <sub>3</sub> )	165	10		mgCaCO <sub>3</sub> /L	1	4/25/2014 10:00:00 AM
Alkalinity, Carbonate (As CaCO <sub>3</sub> )	< 10	10		mgCaCO <sub>3</sub> /L	1	4/25/2014 10:00:00 AM
Alkalinity, Total (As CaCO <sub>3</sub> )	165	10		mgCaCO <sub>3</sub> /L	1	4/25/2014 10:00:00 AM
<b>CHLORIDES</b>				<b>SW9253</b>		Analyst: <b>SXP</b>
Chlorides	568	50		mg/L	5	4/25/2014 9:44:00 AM
<b>TOTAL DISSOLVED SOLIDS</b>				<b>SM2540C</b>		Analyst: <b>GXS</b>
Total Dissolved Solids (Residue, Filterable)	1,380	100		mg/L	5	4/22/2014 11:35:00 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: 14041039

Date Reported: 5/5/2014

**CLIENT:** ICON Environmental Services **Collection Date:** 4/21/2014 1:45:00 PM  
**Project:** East White Lake 9077-041-0800  
**Lab ID:** 14041039-002 **Matrix:** AQUEOUS  
**Client Sample ID** MPA-SB-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TPH-D/O IN WATER BY SW8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH DRO/ORO IN WATER BY SW8015</b>					<b>SW3510C</b>	
TPH (Diesel Range)	0.19	0.13		mg/L	1	4/25/2014 10:34:00 PM
TPH (Oil Range)	< 0.12	0.12		mg/L	1	4/25/2014 10:34:00 PM
Surr: 4-Terphenyl-d14	61.7	36.8 - 128		%REC	1	4/25/2014 10:34:00 PM
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH-GRO IN WATER BY SW8015</b>						
TPH (Gasoline Range)	< 0.15	0.15		mg/L	1	4/23/2014 7:34:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	101	70 - 130		%REC	1	4/23/2014 7:34:00 PM
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>					<b>SW8021B</b>	Analyst: <b>MMV</b>
<b>BTEX IN WATER BY SW8021</b>						
Benzene	0.0135	0.00500		mg/L	1	4/23/2014 7:34:00 PM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	4/23/2014 7:34:00 PM
Toluene	< 0.0100	0.0100		mg/L	1	4/23/2014 7:34:00 PM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	4/23/2014 7:34:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	91.2	70 - 130		%REC	1	4/23/2014 7:34:00 PM
<b>MERCURY IN GROUND WATER, TOTAL</b>					<b>SW7470A</b>	Analyst: <b>SXM</b>
Mercury	< 0.0002	0.0002		mg/L	1	4/24/2014 9:55:32 AM
<b>METALS IN WATER BY ICP, TOTALS</b>					<b>SW6010B</b>	Analyst: <b>STS</b>
Arsenic	< 0.010	0.010		mg/L	1	4/25/2014 7:54:39 PM
Barium	3.14	0.010		mg/L	1	4/25/2014 7:54:39 PM
Cadmium	< 0.005	0.005		mg/L	1	4/25/2014 7:54:39 PM
Calcium	395	5.00		mg/L	10	4/29/2014 6:58:32 PM
Chromium	< 0.010	0.010		mg/L	1	4/25/2014 7:54:39 PM
Iron	9.90	0.100		mg/L	10	4/29/2014 2:12:24 PM
Lead	< 0.010	0.010		mg/L	1	4/25/2014 7:54:39 PM
Magnesium	156	5.00		mg/L	10	4/29/2014 6:58:32 PM
Manganese	1.83	0.010		mg/L	1	4/25/2014 7:54:39 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits





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 Website: [www.element.com](http://www.element.com)

# Analytical Report

(consolidated)

WO#: **14041039**

Date Reported: **5/5/2014**

**CLIENT:** ICON Environmental Services **Collection Date:** 4/21/2014 1:45:00 PM  
**Project:** East White Lake 9077-041-0800  
**Lab ID:** 14041039-002 **Matrix:** AQUEOUS  
**Client Sample ID** MPA-SB-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>METALS IN WATER BY ICP, TOTALS</b>			<b>SW6010B</b>		Analyst: <b>STS</b>	
Potassium	6.48	5.00		mg/L	1	4/29/2014 6:52:02 PM
Sodium	1,260	50.0		mg/L	10	4/29/2014 6:58:32 PM
Strontium	3.66	0.100		mg/L	10	4/29/2014 2:12:24 PM
Zinc	< 0.010	0.010		mg/L	1	4/25/2014 7:54:39 PM
<b>METALS IN WATER BY ICP, DISSOLVED</b>			<b>SW6010B</b>		Analyst: <b>STS</b>	
Arsenic	< 0.010	0.010		mg/L	1	4/25/2014 10:24:18 PM
Iron	8.81	0.100		mg/L	10	4/29/2014 4:14:03 PM
Manganese	1.86	0.010		mg/L	1	4/25/2014 10:24:18 PM
<b>ALKALINITY; TOTAL, CARB, BICARB</b>			<b>SM2320 B</b>		Analyst: <b>TLB</b>	
Alkalinity, Bicarbonate (As CaCO3)	355	10		mgCaCO3/L	1	4/25/2014 10:00:00 AM
Alkalinity, Carbonate (As CaCO3)	< 10	10		mgCaCO3/L	1	4/25/2014 10:00:00 AM
Alkalinity, Total (As CaCO3)	355	10		mgCaCO3/L	1	4/25/2014 10:00:00 AM
<b>CHLORIDES</b>			<b>SW9253</b>		Analyst: <b>SXP</b>	
Chlorides	3,200	500		mg/L	50	4/25/2014 9:44:00 AM
<b>TOTAL DISSOLVED SOLIDS</b>			<b>SM2540C</b>		Analyst: <b>GXS</b>	
Total Dissolved Solids (Residue, Filterable)	6,650	500		mg/L	25	4/22/2014 11:35:00 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	C Value is below Minimum Compound Limit.	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	M Matrix Interference
	N Tentatively identified compounds	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Second column confirmation exceeds
	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits



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# Analytical Report

(consolidated)

WO#: **14041039**

Date Reported: **5/5/2014**

**CLIENT:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800  
**Lab ID:** 14041039-003  
**Client Sample ID** Trip blank

**Collection Date:** 4/21/2014

**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>					<b>SW8015B</b>	Analyst: <b>MMV</b>
<b>TPH-GRO IN WATER BY SW8015</b>						
TPH (Gasoline Range)	< 0.15	0.15		mg/L	1	4/23/2014 6:40:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	99.2	70 - 130		%REC	1	4/23/2014 6:40:00 PM
<b>BTEX/TPH-G IN WATER BY SW8021/8015</b>					<b>SW8021B</b>	Analyst: <b>MMV</b>
<b>BTEX IN WATER BY SW8021</b>						
Benzene	< 0.00500	0.00500		mg/L	1	4/23/2014 6:40:00 PM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	4/23/2014 6:40:00 PM
Toluene	< 0.0100	0.0100		mg/L	1	4/23/2014 6:40:00 PM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	4/23/2014 6:40:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	89.6	70 - 130		%REC	1	4/23/2014 6:40:00 PM

**Qualifiers:**

- |  |   |
|--|---|
| * Value exceeds Maximum Contaminant Level.           | B Analyte detected in the associated Method Blank |
| C Value is below Minimum Compound Limit.             | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded | M Matrix Interference                             |
| N Tentatively identified compounds                   | ND Not Detected at the Reporting Limit            |
| O RSD is greater than RSDlimit                       | P Second column confirmation exceeds              |
| PL Permit Limit                                      | R RPD outside accepted recovery limits            |
| RL Reporting Detection Limit                         | S Spike Recovery outside accepted recovery limits |



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# QC SUMMARY REPORT

WO#: 14041039

05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 10871

Sample ID	<b>MB-10871</b>	SampType:	<b>MBLK</b>	TestCode:	<b>HG_W_7470</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/23/2014</b>	RunNo:	<b>33088</b>			
Client ID:	<b>PBW</b>	Batch ID:	<b>10871</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>4/24/2014</b>	SeqNo:	<b>745523</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		< 0.0002		0.0002										

Sample ID	<b>LCS-10871</b>	SampType:	<b>LCS</b>	TestCode:	<b>HG_W_7470</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/23/2014</b>	RunNo:	<b>33088</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>10871</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>4/24/2014</b>	SeqNo:	<b>745524</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.0105		0.0002	0.0100	0		105	80	120				

Sample ID	<b>LCSD-10871</b>	SampType:	<b>LCSD</b>	TestCode:	<b>HG_W_7470</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/23/2014</b>	RunNo:	<b>33088</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>10871</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>4/24/2014</b>	SeqNo:	<b>745525</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.0107		0.0002	0.0100	0		107	80	120	0.0105	2.62	20	

Sample ID	<b>14041039-001FMS</b>	SampType:	<b>MS</b>	TestCode:	<b>HG_W_7470</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/23/2014</b>	RunNo:	<b>33088</b>			
Client ID:	<b>Hebert</b>	Batch ID:	<b>10871</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>4/24/2014</b>	SeqNo:	<b>745527</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.0101		0.0002	0.0100	0		101	75	125				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 10871

Sample ID	<b>14041039-001FMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>HG_W_7470</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/23/2014</b>	RunNo:	<b>33088</b>		
Client ID:	<b>Hebert</b>	Batch ID:	<b>10871</b>	TestNo:	<b>SW7470A</b>			Analysis Date:	<b>4/24/2014</b>	SeqNo:	<b>745528</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.0101		0.0002	0.0100	0	101	75	125	0.0101	0.430	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14041039

05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 10873

Sample ID	<b>LCS-D-10873</b>	SampType:	<b>LCS</b>	TestCode:	<b>8015_DO_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/22/2014</b>	RunNo:	<b>33172</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>10873</b>	TestNo:	<b>SW8015B</b>	<b>SW3510C</b>		Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748243</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range) 2.17 0.13 2.50 0 86.9 62.3 110  
 Surr: 4-Terphenyl-d14 0.09 0.10 85.1 36.8 128

Sample ID	<b>LCSD-D-10873</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_DO_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/22/2014</b>	RunNo:	<b>33172</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>10873</b>	TestNo:	<b>SW8015B</b>	<b>SW3510C</b>		Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748244</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range) 2.08 0.13 2.50 0 83.1 62.3 110 2.17 4.56 14.1  
 Surr: 4-Terphenyl-d14 0.07 0.10 66.0 36.8 128 0 40

Sample ID	<b>LCSD-M-10873</b>	SampType:	<b>LCSD</b>	TestCode:	<b>8015_DO_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/22/2014</b>	RunNo:	<b>33172</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>10873</b>	TestNo:	<b>SW8015B</b>	<b>SW3510C</b>		Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748245</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range) 2.69 0.12 3.00 0 89.7 63.8 124 2.70 0.28 23.2  
 Surr: 4-Terphenyl-d14 0.06 0.10 59.0 36.8 128 0 40

Sample ID	<b>LCS-M-10873</b>	SampType:	<b>LCS</b>	TestCode:	<b>8015_DO_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/22/2014</b>	RunNo:	<b>33172</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>10873</b>	TestNo:	<b>SW8015B</b>	<b>SW3510C</b>		Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748246</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range) 2.70 0.12 3.00 0 89.9 63.8 124

- Qualifiers:**
- \* Value exceeds Maximum Contaminant Level.
  - E Value above quantitation range
  - ND Not Detected at the Reporting Limit
  - PL Permit Limit
  - S Spike Recovery outside accepted recovery limits
  - B Analyte detected in the associated Method Blank
  - H Holding times for preparation or analysis exceeded
  - O RSD is greater than RSDlimit
  - R RPD outside accepted recovery limits
  - C Value is below Minimum Compound Limit.
  - M Matrix Interference
  - P Second column confirmation exceeds
  - RL Reporting Detection Limit



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 10873

Sample ID	<b>LCS-M-10873</b>	SampType:	<b>LCS</b>	TestCode:	<b>8015_DO_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/22/2014</b>	RunNo:	<b>33172</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>10873</b>	TestNo:	<b>SW8015B</b>	<b>SW3510C</b>		Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748246</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr:	4-Terphenyl-d14	0.05			0.10			53.8	36.8	128				

Sample ID	<b>MB-10873</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8015_DO_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/22/2014</b>	RunNo:	<b>33172</b>			
Client ID:	<b>PBW</b>	Batch ID:	<b>10873</b>	TestNo:	<b>SW8015B</b>	<b>SW3510C</b>		Analysis Date:	<b>4/29/2014</b>	SeqNo:	<b>749829</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Diesel Range)		< 0.13		0.13										
TPH (Oil Range)		< 0.12		0.12										
Surr:	4-Terphenyl-d14	0.05			0.10			52.4	36.8	128				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 10900

Sample ID	<b>MB-10900</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33251</b>
Client ID:	<b>PBW</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>4/29/2014</b>	SeqNo:	<b>750784</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	< 0.500	0.500									
Magnesium	< 0.500	0.500									
Potassium	< 5.00	5.00									
Sodium	< 5.00	5.00									

Sample ID	<b>LCS-10900</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33251</b>
Client ID:	<b>LCSW</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>4/29/2014</b>	SeqNo:	<b>750785</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	49.0	0.500	50.00	0	97.9	80	120				
Magnesium	48.4	0.500	50.00	0	96.9	80	120				
Potassium	48.9	5.00	50.00	0	97.9	80	120				
Sodium	48.6	5.00	50.00	0	97.1	80	120				

Sample ID	<b>LCSD-10900</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33251</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>4/29/2014</b>	SeqNo:	<b>750786</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	49.2	0.500	50.00	0	98.4	80	120	48.95	0.530	20	
Magnesium	48.7	0.500	50.00	0	97.4	80	120	48.45	0.556	20	
Potassium	49.4	5.00	50.00	0	98.7	80	120	48.94	0.875	20	
Sodium	49.7	5.00	50.00	0	99.4	80	120	48.57	2.28	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 10900

Sample ID	<b>14041039-001FMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33251</b>		
Client ID:	<b>Hebert</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>4/29/2014</b>	SeqNo:	<b>750799</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium		110		0.500	50.00	62.00	96.2	75	125				
Magnesium		88.8		0.500	50.00	41.89	93.7	75	125				
Potassium		53.1		5.00	50.00	5.560	95.0	75	125				
Sodium		342		5.00	50.00	293.7	96.4	75	125				

Sample ID	<b>14041039-001FMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33251</b>		
Client ID:	<b>Hebert</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>4/29/2014</b>	SeqNo:	<b>750800</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium		108		0.500	50.00	62.00	91.8	75	125	110.1	2.02	20	
Magnesium		88.8		0.500	50.00	41.89	93.9	75	125	88.76	0.101	20	
Potassium		52.0		5.00	50.00	5.560	92.8	75	125	53.08	2.13	20	
Sodium		339		5.00	50.00	293.7	91.2	75	125	341.9	0.763	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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# QC SUMMARY REPORT

WO#: 14041039

05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 10900

Sample ID	<b>MB-10900</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33246</b>
Client ID:	<b>PBW</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>	Analysis Date:	<b>4/29/2014</b>	SeqNo:	<b>750578</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	< 0.010	0.010									
Strontium	< 0.010	0.010									

Sample ID	<b>LCS-10900</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33246</b>
Client ID:	<b>LCSW</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>	Analysis Date:	<b>4/29/2014</b>	SeqNo:	<b>750579</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.518	0.010	0.500	0	104	80	120				
Strontium	0.520	0.010	0.500	0	104	80	120				

Sample ID	<b>LCSD-10900</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33246</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>	Analysis Date:	<b>4/29/2014</b>	SeqNo:	<b>750580</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.519	0.010	0.500	0	104	80	120	0.518	0.251	20	
Strontium	0.521	0.010	0.500	0	104	80	120	0.520	0.307	20	

Sample ID	<b>14041039-001FMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33246</b>
Client ID:	<b>Hebert</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>	Analysis Date:	<b>4/29/2014</b>	SeqNo:	<b>750589</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	11.1	0.010	0.500	10.82	64.0	75	125				S

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 10900

Sample ID	<b>14041039-001FMS</b>	SampType: <b>MS</b>	TestCode: <b>6010_W</b>	Units: <b>mg/L</b>	Prep Date: <b>4/24/2014</b>	RunNo: <b>33246</b>					
Client ID:	<b>Hebert</b>	Batch ID: <b>10900</b>	TestNo: <b>SW6010B</b>	Analysis Date: <b>4/29/2014</b>	SeqNo: <b>750589</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Strontium	0.938	0.010	0.500	0.467	94.3	75	125				

Sample ID	<b>14041039-001FMSD</b>	SampType: <b>MSD</b>	TestCode: <b>6010_W</b>	Units: <b>mg/L</b>	Prep Date: <b>4/24/2014</b>	RunNo: <b>33246</b>					
Client ID:	<b>Hebert</b>	Batch ID: <b>10900</b>	TestNo: <b>SW6010B</b>	Analysis Date: <b>4/29/2014</b>	SeqNo: <b>750590</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	11.1	0.010	0.500	10.82	50.0	75	125	11.14	0.630	20	S
Strontium	0.930	0.010	0.500	0.467	92.5	75	125	0.938	0.931	20	

**NOTES:**

S - Analyte concentration in native sample was too high for accurate spike recovery(ies). The method is in control as indicated by the laboratory control sample (LCS).

**Qualifiers:**

- |   |  |  |
|---|--|--|
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| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
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| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 10900

Sample ID	<b>MB-10900</b>	SampType:	<b>MBLK</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33181</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748735</b>					
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		< 0.010		0.010												
Barium		< 0.010		0.010												
Cadmium		< 0.005		0.005												
Chromium		< 0.010		0.010												
Lead		< 0.010		0.010												
Manganese		< 0.010		0.010												
Strontium		< 0.010		0.010												
Zinc		< 0.010		0.010												

Sample ID	<b>LCS-10900</b>	SampType:	<b>LCS</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33181</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748736</b>					
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		0.491		0.010		0.500		0		98.2	80	120				
Barium		0.499		0.010		0.500		0		99.8	80	120				
Cadmium		0.500		0.005		0.500		0		99.9	80	120				
Chromium		0.502		0.010		0.500		0		100	80	120				
Lead		0.498		0.010		0.500		0		99.7	80	120				
Manganese		0.499		0.010		0.500		0		99.9	80	120				
Strontium		0.496		0.010		0.500		0		99.2	80	120				
Zinc		0.504		0.010		0.500		0		101	80	120				

**Qualifiers:**

- |   |  |  |
|---|--|--|
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| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 10900

Sample ID	<b>LCSD-10900</b>	SampType:	<b>LCSD</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33181</b>
Client ID:	<b>LCSS02</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748737</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.493	0.010	0.500	0	98.6	80	120	0.491	0.406	20	
Barium	0.499	0.010	0.500	0	99.8	80	120	0.499	0	20	
Cadmium	0.500	0.005	0.500	0	100	80	120	0.500	0.120	20	
Chromium	0.501	0.010	0.500	0	100	80	120	0.502	0.319	20	
Lead	0.500	0.010	0.500	0	100	80	120	0.498	0.260	20	
Manganese	0.499	0.010	0.500	0	99.8	80	120	0.499	0.100	20	
Strontium	0.495	0.010	0.500	0	99.0	80	120	0.496	0.202	20	
Zinc	0.503	0.010	0.500	0	101	80	120	0.504	0.159	20	

Sample ID	<b>14041039-001FMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33181</b>
Client ID:	<b>Hebert</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748744</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.474	0.010	0.500	0	94.8	75	125				
Barium	0.664	0.010	0.500	0.214	90.0	75	125				
Cadmium	0.452	0.005	0.500	0	90.5	75	125				
Chromium	0.463	0.010	0.500	0.001	92.2	75	125				
Lead	0.447	0.010	0.500	0	89.4	75	125				
Manganese	1.90	0.010	0.500	1.456	89.2	75	125				
Strontium	0.873	0.010	0.500	0.437	87.1	75	125				
Zinc	0.494	0.010	0.500	0.046	89.7	75	125				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** 10900

Sample ID	<b>14041039-001FMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010_W</b>	Units:	<b>mg/L</b>	Prep Date:	<b>4/24/2014</b>	RunNo:	<b>33181</b>
Client ID:	<b>Hebert</b>	Batch ID:	<b>10900</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748747</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.473	0.010	0.500	0	94.7	75	125	0.474	0.190	20	
Barium	0.662	0.010	0.500	0.214	89.6	75	125	0.664	0.302	20	
Cadmium	0.451	0.005	0.500	0	90.3	75	125	0.452	0.221	20	
Chromium	0.460	0.010	0.500	0.001	91.7	75	125	0.463	0.629	20	
Lead	0.444	0.010	0.500	0	88.9	75	125	0.447	0.539	20	
Manganese	1.89	0.010	0.500	1.456	87.4	75	125	1.902	0.474	20	
Strontium	0.862	0.010	0.500	0.437	85.0	75	125	0.873	1.21	20	
Zinc	0.493	0.010	0.500	0.046	89.6	75	125	0.494	0.162	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14041039

05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R32999

Sample ID	<b>MB-R32999</b>	SampType:	<b>MBLK</b>	TestCode:	<b>TDS_2540C</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>32999</b>			
Client ID:	<b>PBW</b>	Batch ID:	<b>R32999</b>	TestNo:	<b>SM2540C</b>			Analysis Date:	<b>4/22/2014</b>	SeqNo:	<b>744510</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filterable) < 20 20

Sample ID	<b>LCSD-R32999</b>	SampType:	<b>LCSD</b>	TestCode:	<b>TDS_2540C</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>32999</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R32999</b>	TestNo:	<b>SM2540C</b>			Analysis Date:	<b>4/22/2014</b>	SeqNo:	<b>744511</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filterable) 1,010 20 1,000 0 101 85 115 1,009 0 10

Sample ID	<b>LCS-R32999</b>	SampType:	<b>LCS</b>	TestCode:	<b>TDS_2540C</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>32999</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>R32999</b>	TestNo:	<b>SM2540C</b>			Analysis Date:	<b>4/22/2014</b>	SeqNo:	<b>744512</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filterable) 1,010 20 1,000 0 101 85 115

Sample ID	<b>14041039-002BDUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>TDS_2540C</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>32999</b>			
Client ID:	<b>MPA-SB-1</b>	Batch ID:	<b>R32999</b>	TestNo:	<b>SM2540C</b>			Analysis Date:	<b>4/22/2014</b>	SeqNo:	<b>744514</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filterable) 6,800 500 6,650 2 10

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R32999

Sample ID	<b>14041039-002BDUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>TDS_2540C</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>32999</b>
Client ID:	<b>MPA-SB-1</b>	Batch ID:	<b>R32999</b>	TestNo:	<b>SM2540C</b>			Analysis Date:	<b>4/22/2014</b>	SeqNo:	<b>744514</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual

Sample ID	<b>14041033-001CDUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>TDS_2540C</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>32999</b>
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R32999</b>	TestNo:	<b>SM2540C</b>			Analysis Date:	<b>4/22/2014</b>	SeqNo:	<b>744516</b>
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Total Dissolved Solids (Residue, Filterable)		1,100		100						1,080	1 10

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R33075

Sample ID	<b>LCS BTEX</b>	SampType: <b>LCS</b>	TestCode: <b>8021_BTEX_</b> Units: <b>mg/L</b>				Prep Date:			RunNo: <b>33075</b>		
Client ID:	<b>LCSW</b>	Batch ID: <b>R33075</b>	TestNo: <b>SW8021B</b>				Analysis Date: <b>4/23/2014</b>			SeqNo: <b>745185</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	0.0460	0.00500	0.05000	0	92.0	72	120					
Ethylbenzene	0.0541	0.00500	0.05000	0	108	76	129					
Toluene	0.0521	0.0100	0.05000	0	104	78	120					
Xylenes, Total	0.160	0.0500	0.1500	0	107	75	125					
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0543		0.05000		109	70	130					

Sample ID	<b>LCS D BTEX</b>	SampType: <b>LCS D</b>	TestCode: <b>8021_BTEX_</b> Units: <b>mg/L</b>				Prep Date:			RunNo: <b>33075</b>		
Client ID:	<b>LCS S02</b>	Batch ID: <b>R33075</b>	TestNo: <b>SW8021B</b>				Analysis Date: <b>4/23/2014</b>			SeqNo: <b>745186</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	0.0436	0.00500	0.05000	0	87.2	72	120	0.04600	5.36	20		
Ethylbenzene	0.0513	0.00500	0.05000	0	103	76	129	0.05410	5.31	20		
Toluene	0.0495	0.0100	0.05000	0	99.0	78	120	0.05210	5.12	20		
Xylenes, Total	0.152	0.0500	0.1500	0	101	75	125	0.1600	5.13	20		
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0538		0.05000		108	70	130		0	20		

Sample ID	<b>MBLK ACID</b>	SampType: <b>MBLK</b>	TestCode: <b>8021_BTEX_</b> Units: <b>mg/L</b>				Prep Date:			RunNo: <b>33075</b>		
Client ID:	<b>PBW</b>	Batch ID: <b>R33075</b>	TestNo: <b>SW8021B</b>				Analysis Date: <b>4/23/2014</b>			SeqNo: <b>745187</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	< 0.00500	0.00500										
Ethylbenzene	< 0.00500	0.00500										

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				





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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R33075

Sample ID	<b>MBLK ACID</b>	SampType:	<b>MBLK</b>	TestCode:	<b>8021_BTEX_</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>33075</b>			
Client ID:	<b>PBW</b>	Batch ID:	<b>R33075</b>	TestNo:	<b>SW8021B</b>			Analysis Date:	<b>4/23/2014</b>	SeqNo:	<b>745187</b>			
Analyte		Result		PQL		SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene		< 0.0100		0.0100										
Xylenes, Total		< 0.0500		0.0500										
Surr: alpha, alpha, alpha-Trifluorotoluene		0.0457				0.05000		91.4	70	130				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R33077

Sample ID	<b>LCS GAS</b>	SampType: <b>LCS</b>	TestCode: <b>8015_G_W</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>33077</b>
Client ID:	<b>LCSW</b>	Batch ID: <b>R33077</b>	TestNo: <b>SW8015B</b>	Analysis Date: <b>4/23/2014</b>	SeqNo: <b>745194</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

TPH (Gasoline Range) 13.2 0.15 12.50 0 106 80 130

Sample ID	<b>LSCD GAS</b>	SampType: <b>LCS D</b>	TestCode: <b>8015_G_W</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>33077</b>
Client ID:	<b>LCSS02</b>	Batch ID: <b>R33077</b>	TestNo: <b>SW8015B</b>	Analysis Date: <b>4/23/2014</b>	SeqNo: <b>745195</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

TPH (Gasoline Range) 13.4 0.15 12.50 0 107 80 130 13.25 1.43 20

Sample ID	<b>MBLK ACID</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_G_W</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>33077</b>
Client ID:	<b>PBW</b>	Batch ID: <b>R33077</b>	TestNo: <b>SW8015B</b>	Analysis Date: <b>4/23/2014</b>	SeqNo: <b>745196</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

TPH (Gasoline Range) < 0.15 0.15  
 Surr: alpha, alpha-Trifluorotoluene 0.05 0.05 102 70 130

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R33119

Sample ID	<b>MB-R33119</b>	SampType:	<b>MBLK</b>	TestCode:	<b>CL_W_9253</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>33119</b>			
Client ID:	<b>PBW</b>	Batch ID:	<b>R33119</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>747041</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chlorides		< 10		10										
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Sample ID	<b>LCSD-R33119</b>	SampType:	<b>LCSD</b>	TestCode:	<b>CL_W_9253</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>33119</b>			
Client ID:	<b>LCSS02</b>	Batch ID:	<b>R33119</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>747042</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chlorides		110		10		100		0		110		80		120		106		3		20
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Sample ID	<b>LCS-R33119</b>	SampType:	<b>LCS</b>	TestCode:	<b>CL_W_9253</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>33119</b>			
Client ID:	<b>LCSW</b>	Batch ID:	<b>R33119</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>747043</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chlorides		106		10		100		0		106		80		120
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Sample ID	<b>14041197-006BMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>CL_W_9253</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>33119</b>			
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R33119</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>747063</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chlorides		66,700		4,000		40,000		26,980		99		80		120		69,580		4		20
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**Qualifiers:**

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R33119

Sample ID	<b>14041197-006BMS</b>	SampType:	<b>MS</b>	TestCode:	<b>CL_W_9253</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>33119</b>												
Client ID:	<b>ZZZZZZ</b>	Batch ID:	<b>R33119</b>	TestNo:	<b>SW9253</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>747065</b>												
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual	
Chlorides		69,600		4,000		40,000		26,980		106		80		120									

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- PL Permit Limit
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- C Value is below Minimum Compound Limit.
- M Matrix Interference
- P Second column confirmation exceeds
- RL Reporting Detection Limit



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R33120

Sample ID	<b>MB-R33120</b>	SampType:	<b>MBLK</b>	TestCode:	<b>ALK</b>	Units:	<b>mgCaCO3/L</b>	Prep Date:		RunNo:	<b>33120</b>		
Client ID:	<b>PBW</b>	Batch ID:	<b>R33120</b>	TestNo:	<b>SM2320 B</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748029</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Bicarbonate (As CaCO3)	< 10	10
Alkalinity, Carbonate (As CaCO3)	< 10	10
Alkalinity, Total (As CaCO3)	< 10	10

Sample ID	<b>LCS-R33120</b>	SampType:	<b>LCS</b>	TestCode:	<b>ALK</b>	Units:	<b>mgCaCO3/L</b>	Prep Date:		RunNo:	<b>33120</b>		
Client ID:	<b>LCSW</b>	Batch ID:	<b>R33120</b>	TestNo:	<b>SM2320 B</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748030</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Total (As CaCO3)	51	10	50	0	101	80	120
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Sample ID	<b>14040931-001CDUP</b>	SampType:	<b>DUP</b>	TestCode:	<b>ALK</b>	Units:	<b>mgCaCO3/L</b>	Prep Date:		RunNo:	<b>33120</b>		
Client ID:	<b>ZZZZZ</b>	Batch ID:	<b>R33120</b>	TestNo:	<b>SM2320 B</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748033</b>		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Bicarbonate (As CaCO3)	483	10								485	0	20
Alkalinity, Carbonate (As CaCO3)	< 10	10								0	0	20
Alkalinity, Total (As CaCO3)	483	10								485	0	20

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	C	Value is below Minimum Compound Limit.
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	O	RSD is greater than RSDlimit	P	Second column confirmation exceeds
PL	Permit Limit	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits				



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R33181

Sample ID <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>6010-D</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>33181</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R33181</b>	TestNo: <b>SW6010B</b>		Analysis Date: <b>4/25/2014</b>	SeqNo: <b>748784</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	0.010	0.010									
Manganese	< 0.010	0.010									

**NOTES:**

B - Analyte found in the method blank. However, it was not detected in the sample.

Sample ID <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>6010-D</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>33181</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R33181</b>	TestNo: <b>SW6010B</b>		Analysis Date: <b>4/25/2014</b>	SeqNo: <b>748785</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	0.474	0.010	0.500	0	94.9	80	120				B
Manganese	0.472	0.010	0.500	0	94.3	80	120				

Sample ID <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>6010-D</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>33181</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>R33181</b>	TestNo: <b>SW6010B</b>		Analysis Date: <b>4/25/2014</b>	SeqNo: <b>748786</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	0.467	0.010	0.500	0	93.3	80	120	0.474	1.68	20	B
Manganese	0.477	0.010	0.500	0	95.4	80	120	0.472	1.18	20	

Sample ID <b>14041039-002GMS</b>	SampType: <b>MS</b>	TestCode: <b>6010-D</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>33181</b>						
Client ID: <b>MPA-SB-1</b>	Batch ID: <b>R33181</b>	TestNo: <b>SW6010B</b>		Analysis Date: <b>4/25/2014</b>	SeqNo: <b>748788</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	C Value is below Minimum Compound Limit.
E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	O RSD is greater than RSDlimit	P Second column confirmation exceeds
PL Permit Limit	R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits		



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# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R33181

Sample ID	<b>14041039-002GMS</b>	SampType:	<b>MS</b>	TestCode:	<b>6010-D</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>33181</b>			
Client ID:	<b>MPA-SB-1</b>	Batch ID:	<b>R33181</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748788</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic		0.494		0.010	0.500	0		98.7	75	125				B
Manganese		2.29		0.010	0.500	1.855		86.6	75	125				

Sample ID	<b>14041039-002GMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010-D</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>33181</b>			
Client ID:	<b>MPA-SB-1</b>	Batch ID:	<b>R33181</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>4/25/2014</b>	SeqNo:	<b>748789</b>			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic		0.504		0.010	0.500	0		101	75	125	0.494	2.13	20	B
Manganese		2.28		0.010	0.500	1.855		86.0	75	125	2.288	0.131	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



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# QC SUMMARY REPORT

WO#: 14041039

05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R33246

Sample ID <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>6010-D</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>33246</b>
Client ID: <b>PBW</b>	Batch ID: <b>R33246</b>	TestNo: <b>SW6010B</b>		Analysis Date: <b>4/29/2014</b>	SeqNo: <b>750630</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Iron	< 0.010	0.010			

Sample ID <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>6010-D</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>33246</b>
Client ID: <b>LCSW</b>	Batch ID: <b>R33246</b>	TestNo: <b>SW6010B</b>		Analysis Date: <b>4/29/2014</b>	SeqNo: <b>750631</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Iron	0.507	0.010	0.500	0	101 80 120

Sample ID <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>6010-D</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>33246</b>
Client ID: <b>LCSS02</b>	Batch ID: <b>R33246</b>	TestNo: <b>SW6010B</b>		Analysis Date: <b>4/29/2014</b>	SeqNo: <b>750632</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Iron	0.508	0.010	0.500	0	102 80 120 0.507 0.374 20

Sample ID <b>14041039-002GMS</b>	SampType: <b>MS</b>	TestCode: <b>6010-D</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>33246</b>
Client ID: <b>MPA-SB-1</b>	Batch ID: <b>R33246</b>	TestNo: <b>SW6010B</b>		Analysis Date: <b>4/29/2014</b>	SeqNo: <b>750634</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Iron	9.29	0.100	0.500	8.814	96.0 75 125

**Qualifiers:**

- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |





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 TEL: 337.235.0483 FAX: 337.233.6540  
 Website: [www.element.com](http://www.element.com)

# QC SUMMARY REPORT

WO#: 14041039  
 05-May-14

**Client:** ICON Environmental Services  
**Project:** East White Lake 9077-041-0800

**BatchID:** R33246

Sample ID	<b>14041039-002GMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>6010-D</b>	Units:	<b>mg/L</b>	Prep Date:		RunNo:	<b>33246</b>											
Client ID:	<b>MPA-SB-1</b>	Batch ID:	<b>R33246</b>	TestNo:	<b>SW6010B</b>			Analysis Date:	<b>4/29/2014</b>	SeqNo:	<b>750635</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual
Iron		9.43		0.100		0.500		8.814		124		75		125		9.294		1.48		20		

**Qualifiers:**

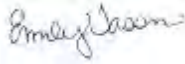


- |   |  |  |
|---|--|--|
| * Value exceeds Maximum Contaminant Level.        | B Analyte detected in the associated Method Blank    | C Value is below Minimum Compound Limit. |
| E Value above quantitation range                  | H Holding times for preparation or analysis exceeded | M Matrix Interference                    |
| ND Not Detected at the Reporting Limit            | O RSD is greater than RSDlimit                       | P Second column confirmation exceeds     |
| PL Permit Limit                                   | R RPD outside accepted recovery limits               | RL Reporting Detection Limit             |
| S Spike Recovery outside accepted recovery limits |  |  |



Element Materials Technology Lafayette  
 2417 W. Pinhook Road  
 Lafayette, LA 70508-3344  
 TEL: 337.235.0483 FAX: 337.233.6540  
 Website: [www.element.com](http://www.element.com)

# Sample Log-In Check List

Client Name: **ICON\_ENV** Work Order Number: **14041039** RcptNo: **1**

Logged by:	<b>Emily Tassin</b>	<b>4/21/2014 4:30:00 PM</b>	
Completed By:	<b>Emily Tassin</b>	<b>4/21/2014 4:40:36 PM</b>	
Reviewed By:	<b>Caitlin Duplantis</b>	<b>4/22/2014 9:23:41 AM</b>	

**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present   
 2. How was the sample delivered? Client

**Log In**

3. Coolers are present? Yes  No  NA   
 4. Shipping container/cooler in good condition? Yes  No   
 Custody seals intact on shipping container/cooler? Yes  No  Not Present   
 No. Seal Date: Signed By:  
 5. Was an attempt made to cool the samples? Yes  No  NA   
 6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA

**Samples were collected the same day and chilled.**

7. Sample(s) in proper container(s)? Yes  No   
 8. Sufficient sample volume for indicated test(s)? Yes  No   
 9. Are samples (except VOA and ONG) properly preserved? Yes  No   
 10. Was preservative added to bottles? Yes  No  NA   
 11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes  No  No VOA Vials   
 12. Were any sample containers received broken? Yes  No   
 13. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)  
 14. Are matrices correctly identified on Chain of Custody? Yes  No   
 15. Is it clear what analyses were requested? Yes  No   
 16. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

**Special Handling (if applicable)**

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

**Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	16.4	Good	Not Present			

# ANALYTICAL RESULTS

PERFORMED BY

**GULF COAST ANALYTICAL LABORATORIES, INC.**

7979 Innovation Park Dr.

Baton Rouge, LA 70820

**Report Date** 04/29/2014

**GCAL Report** 214042331



**Deliver To** Element Materials Technology  
2417 W Pinhook Rd  
Lafayette, LA 70508  
800-737-2378

**Attn** Annie Reedy

**Customer** Element Materials Technology

**Project** EXTRACTS

## CASE NARRATIVE

**Client:** Element Materials Technology      **Report:** 214042331

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

### CONVENTIONALS

In the EPA 9056A analysis, sample 21404233101 (HEBERT) had to be diluted in order to bracket the concentration within the calibration range of the instrument.

In the EPA 9056A analysis, a chemical or physical interference necessitated a dilution for sample 21404233102 (MPA-SB-1). This is reflected in the elevated reporting limit.

# Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

## Common Abbreviations Utilized in this Report

<b>ND</b>	Indicates the result was Not Detected at the specified RDL
<b>DO</b>	Indicates the result was Diluted Out
<b>MI</b>	Indicates the result was subject to Matrix Interference
<b>TNTC</b>	Indicates the result was Too Numerous To Count
<b>SUBC</b>	Indicates the analysis was Sub-Contracted
<b>FLD</b>	Indicates the analysis was performed in the Field
<b>PQL</b>	Practical Quantitation Limit
<b>MDL</b>	Method Detection Limit
<b>RDL</b>	Reporting Detection Limit
<b>00:00</b>	Reported as a time equivalent to 12:00 AM

## Reporting Flags Utilized in this Report


<b>J</b>	Indicates the result is between the MDL and RDL
<b>U</b>	Indicates the compound was analyzed for but not detected
<b>B</b>	Indicates the analyte was detected in the associated Method Blank

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with [NELAC](#), this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Karen Melrose-Ming Chen, DSI  


---

Authorized Signature  
GCAL REPORT 214042331

# Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21404233101	HEBERT	Water	04/21/2014 12:00	04/23/2014 10:45
21404233102	MPA-SB-1	Water	04/21/2014 13:45	04/23/2014 10:45

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21404233101	HEBERT	Water	04/21/2014 12:00	04/23/2014 10:45

EPA 9056A

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			100	04/28/2014 20:31	AEL	531116

CAS#	Parameter	Result	RDL	REG LIMIT	Units
14808-79-8	Sulfate	88.3	20.0		mg/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21404233102	MPA-SB-1	Water	04/21/2014 13:45	04/23/2014 10:45

EPA 9056A

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			10	04/28/2014 10:50	AEL	531116

CAS#	Parameter	Result	RDL	REG LIMIT	Units
14808-79-8	Sulfate	ND	2.00		mg/L



# General Chemistry Quality Control Summary

<b>Analytical Batch</b> 531116	<b>Client ID</b> MB531116	LCS531116	
<b>Prep Batch</b> N/A	<b>GCAL ID</b> 1309882	1309883	
	<b>Sample Type</b> Method Blank	LCS	
	<b>Analytical Date</b> 04/28/2014 08:46	04/28/2014 09:04	
	<b>Matrix</b> Water	Water	
<b>EPA 9056A</b>	<b>Units</b> mg/L	<b>Result</b>	<b>Control</b>
	<b>Result</b> ND		<b>Limits % R</b>
	<b>RDL</b> 0.200	<b>% R</b> 91	<b>80 - 120</b>
14808-79-8	<b>Sulfate</b>	<b>Spike</b>	<b>Added</b>
		2.50	

<b>Analytical Batch</b> 531116	<b>Client ID</b> MAO1MW002	MAO1MW002-MSD	
<b>Prep Batch</b> N/A	<b>GCAL ID</b> 21404241601	21404241603	
	<b>Sample Type</b> SAMPLE	MSD	
	<b>Analytical Date</b> 04/28/2014 14:21	04/28/2014 14:56	
	<b>Matrix</b> Water	Water	
<b>EPA 9056A</b>	<b>Units</b> mg/L	<b>Result</b>	<b>Control</b>
	<b>Result</b> 527		<b>Limits % R</b>
	<b>RDL</b> 100	<b>% R</b> 95	<b>80 - 120</b>
14808-79-8	<b>Sulfate</b>	<b>Spike</b>	<b>Added</b>
		1250	
		<b>Result</b>	<b>RPD</b>
		1710	<b>Limit</b>
		<b>% R</b> 95	<b>0</b>
		<b>1710</b>	<b>15</b>



CHAIN OF CUSTODY RECORD

Omega COCID 2194

Element Materials Technology  
Lafayette  
2417 W. Pinhook Road  
Lafayette, LA 70506-3344

TEL: 337.233.0483  
FAX: 337.233.6540  
Website: www.element.com

SUB CONTRACTOR: <b>GCAL</b>		COMPANY: <b>Gulf Coast</b>					
ADDRESS: <b>7979 GSRI Avenue</b>							
CITY, STATE ZIP: <b>Baton Rouge, LA 70820</b>							
PHONE: <b>(225) 769-4900</b>		FAX: <b>(225) 767-5717</b>					
ACCOUNT #: _____ EMAIL: _____							
SPECIAL INSTRUCTIONS / COMMENTS: _____							
ITEM #	SAMPLE ID	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	COMMENTS: Methanol Preserved Weights HOT Sample Notation, Additional Sample Description
1	14041039-001D	Hebert	250HDPEU	Aqueous	4/21/2014 12:00:00 PM	1	1
	SO4_W_SUB (ASTM D516-90)						
2	14041039-002D	MPA-SB-1	250HDPEU	Aqueous	4/21/2014 1:45:00 PM	1	2
	SO4_W_SUB (ASTM D516-90)						

Client ID: 4462 - Element Materials Technology

SDG: 214042331  
Due Date: 04/30/14



Relinquished By: <i>Chris Johnson</i>	Date: <b>4-23-14</b> Time: <b>7:00</b>	Received By: <i>W. T. Boud</i>	Date: <b>4-22-14</b> Time: <b>7:50</b>
Relinquished By:	Date:	Received By:	Date:
Relinquished By: <i>W. T. Boud</i>	Date: <b>4-23-14</b> Time: <b>7:045</b>	Received By: <i>J. Sanchez</i>	Date: <b>4-22-14</b> Time: <b>7:045</b>
Relinquished By:	Date:	Received By:	Date:
TAT: <input type="checkbox"/> Standard <input type="checkbox"/> RUSH	<input type="checkbox"/> 1st BD <input type="checkbox"/> 2nd BD <input type="checkbox"/> 3rd BD	Note: RUSH requests will incur surcharge!	
REPORT TRANSMITTAL DESIRED:		FOR LAB USE ONLY	
<input type="checkbox"/> HARDCOPY (extra cost) <input type="checkbox"/> FAX <input type="checkbox"/> EMAIL <input type="checkbox"/> ONLINE		Temp of sample: <b>54.622</b> Attempts to Cool? _____	
Comments: _____		Comments: _____	



# SAMPLE RECEIVING CHECKLIST



SAMPLE DELIVERY GROUP 214042331		CHECKLIST	
<b>Client</b> 4462 - Element Materials Technology	<b>Transport Method</b> CUST	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
<b>Profile Number</b> 61531	<b>Received By</b> Brown, Aaron D.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Line Item(s)</b> 40 - SULFATE ONLY - WATER	<b>Receive Date(s)</b> 04/23/14	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Were all samples received using proper thermal preservation?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
When used, were all custody seals intact?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were all samples received in proper containers?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Were all samples received using proper chemical preservation?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Was preservative added to any container at the lab?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were all containers received in good condition?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Were all VOA vials received with no head space?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Do all sample labels match the Chain of Custody?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Did the Chain of Custody list the sampling technician?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Was the COC maintained i.e. all signatures, dates and time of receipt included?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>DISCREPANCIES</b>		<b>LAB PRESERVATIONS</b>	
None		None	
<b>COOLERS</b>		<b>NOTES</b>	
<b>Airbill</b>	<b>Thermometer ID: E22</b>		
	<b>Temp(°C)</b> 5.4		



Chain of Custody

Laboratory Number: 14071039

Client Information: 100 V Envision Petroleum  
 Contact Name: Gina Miller  
 Address: 2000 Commercial Dr  
 City, State Zip: P.O. Box 477067  
 Phone Number: 225-344-4746  
 Fax Number: EXT:  
 E-mail Address: EXT:

Billing Information: PO Number: Quote Number: 9077-041-0800  
 Required QC Level: Bill Monthly:  Yes  No  
 Shipping Method: UPS / FedEx / Airborne  
 DHL / Element / Hand / Mail

Project Name/Number: East White Lake  
 Sampler's Signature: [Signature]  
 Matrix Code: DW = Drinking Water, WW = Waste Water, GW = Ground Water, AQ = Aqueous, OT = Other, SL = Sludge, SOL = Solid, O = Oil, SO = Soil, F = Food, SW = Swab, NG = Natural Gas, NGL = Natural Gas Liquid, PW = Produced Water, CF = Completion Fluid

Sample ID/Description	Which Regulations Apply:		Turn Time	Rush Turn Times	Container	Pres.	Requested Tests	Comments
	<input type="checkbox"/> RCRA	<input type="checkbox"/> Drinking Water						
Hebeo	<input type="checkbox"/> POTW	<input type="checkbox"/> Distribution	4/21/14 1200	G	8	HC, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , NaOH, Na <sub>2</sub> O <sub>2</sub>	Chlorides/TDS, Total Metals, Diss Metals, Cations/Anions	Total Metals List, As, Ba, Cd, Cr, Fe, Mn, Pb, Sr, Zn, Hg
MPA-SB-1	<input type="checkbox"/> NPDES	<input type="checkbox"/> Special	4/21/14 1345	G	9	HC, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , NaOH, Na <sub>2</sub> O <sub>2</sub>	Chlorides/TDS, Total Metals, Diss Metals, Cations/Anions	Disolved Metals, only As, Fe, Mn
Tray Blank	<input type="checkbox"/> USDA/FDA	<input type="checkbox"/> State	-	-	2	HC, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , NaOH, Na <sub>2</sub> O <sub>2</sub>	Chlorides/TDS, Total Metals, Diss Metals, Cations/Anions	

Relinquished by: [Signature] Date/Time: 4/21/14 11:50 AM  
 Received by: [Signature] Date/Time: 4/21/14 16:30  
 Received at lab on ice?  Yes  No Temp: 10/2/14

All samples submitted to Element Materials Technology for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Element Materials Technology reserves the right to return unused sample portions.

9301 Innovation Drive, Suite 115 Daleville, IN 47534-9559 USA P 765-378-4103 F 765-378-4108

629 Washington St, Suite 300 Columbus, IN 47201-6231 USA P 812-375-0331 F 812-375-0331

2121 East Washington Boulevard Fort Wayne, IN 46803-1328 USA P 260-471-7000 F 260-471-3771

560 South Zimmer Road Warsaw, IN 46580-2366 USA P 574-287-3365 F 574-289-6569

3371 Cleveland Road, Suite 100A South Bend, IN 46628-9780 USA P 574-277-0797 F 574-273-5699

3417 W Pinhook Rd Lafayette, LA 70508-3344 USA P 337-235-0493 F 337-233-6540

# ANALYTICAL RESULTS

PERFORMED BY

**GULF COAST ANALYTICAL LABORATORIES, INC.**

7979 Innovation Park Dr.

Baton Rouge, LA 70820

**Report Date** 04/29/2014

**GCAL Report** 214042303



**Deliver To** Icon Environmental  
2049 Commercial Drive  
Port Allen, LA 70767  
344-8490

**Attn** Greg Miller

**Project** East White Lake 9077-041-0800

## CASE NARRATIVE

**Client:** Icon Environmental      **Report:** 214042303

Gulf Coast Analytical Laboratories received and analyzed the sample(s) listed on the sample cross-reference page of this report. Receipt of the sample(s) is documented by the attached chain of custody. This applies only to the sample(s) listed in this report. No sample integrity or quality control exceptions were identified unless noted below.

### **CONVENTIONALS**

In the EPA 9056A analysis, sample 21404230302 (MPA-SB-1) had to be diluted in order to bracket the concentration within the calibration range of the instrument.

In the EPA 9056A analysis, a chemical or physical interference necessitated a dilution for sample 21404230301 (HEBERT). This is reflected in the elevated reporting limit.

# Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with GCAL's Standard Operating Procedures.

## Common Abbreviations Utilized in this Report

<b>ND</b>	Indicates the result was Not Detected at the specified RDL
<b>DO</b>	Indicates the result was Diluted Out
<b>MI</b>	Indicates the result was subject to Matrix Interference
<b>TNTC</b>	Indicates the result was Too Numerous To Count
<b>SUBC</b>	Indicates the analysis was Sub-Contracted
<b>FLD</b>	Indicates the analysis was performed in the Field
<b>PQL</b>	Practical Quantitation Limit
<b>MDL</b>	Method Detection Limit
<b>RDL</b>	Reporting Detection Limit
<b>00:00</b>	Reported as a time equivalent to 12:00 AM

## Reporting Flags Utilized in this Report

<b>J</b>	Indicates the result is between the MDL and RDL
<b>U</b>	Indicates the compound was analyzed for but not detected
<b>B</b>	Indicates the analyte was detected in the associated Method Blank

Sample receipt at GCAL is documented through the attached chain of custody. In accordance with [NELAC](#), this report shall be reproduced only in full and with the written permission of GCAL. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with the NELAC standard and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

---

Authorized Signature

**GCAL REPORT 214042303**

# Report Sample Summary

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21404230301	HEBERT	Water	04/21/2014 12:00	04/22/2014 12:10
21404230302	MPA-SB-1	Water	04/21/2014 13:45	04/22/2014 12:10



# Summary of Compounds Detected

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21404230301	HEBERT	Water	04/21/2014 12:00	04/22/2014 12:10

EPA 9056A

CAS#	Parameter	Result	RDL	REG LIMIT	Units
24959-67-9	Bromide	2.72	0.400		mg/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21404230302	MPA-SB-1	Water	04/21/2014 13:45	04/22/2014 12:10

EPA 9056A

CAS#	Parameter	Result	RDL	REG LIMIT	Units
24959-67-9	Bromide	12.3	2.00		mg/L

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
21404230301	HEBERT	Water	04/21/2014 12:00	04/22/2014 12:10

EPA 9056A

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			2	04/28/2014 13:10	AEL	531116

CAS#	Parameter	Result	RDL	REG LIMIT	Units
24959-67-9	Bromide	2.72	0.400		mg/L

<b>GCAL ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Collect Date/Time</b>	<b>Receive Date/Time</b>
21404230302	MPA-SB-1	Water	04/21/2014 13:45	04/22/2014 12:10

EPA 9056A

<b>Prep Date</b>	<b>Prep Batch</b>	<b>Prep Method</b>	<b>Dilution</b>	<b>Analyzed</b>	<b>By</b>	<b>Analytical Batch</b>
			10	04/28/2014 13:28	AEL	531116

<b>CAS#</b>	<b>Parameter</b>	<b>Result</b>	<b>RDL</b>	<b>REG LIMIT</b>	<b>Units</b>
24959-67-9	Bromide	12.3	2.00		mg/L

# General Chemistry Quality Control Summary

<b>Analytical Batch</b> 531116 <b>Prep Batch</b> N/A	<b>Client ID</b> MB531116 <b>GCAL ID</b> 1309882 <b>Sample Type</b> Method Blank <b>Analytical Date</b> 04/28/2014 08:46 <b>Matrix</b> Water	<b>LCS531116</b> 1309883 LCS 04/28/2014 09:04 Water				
<b>EPA 9056A</b>		<b>Units</b>	mg/L	<b>Spike</b>	<b>Result</b>	<b>Control</b>
		<b>Result</b>	<b>RDL</b>	<b>Added</b>	<b>% R</b>	<b>Limits % R</b>
24959-67-9	Bromide	ND	0.200	2.50	2.29	92
						80 - 120





# SAMPLE RECEIVING CHECKLIST



SAMPLE DELIVERY GROUP 214042303		CHECKLIST	YES	NO	NA
<b>Client</b> 4236 - Icon Environmental	<b>Transport Method</b> CUST	Were all samples received using proper thermal preservation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		When used, were all custody seals intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Were all samples received in proper containers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Profile Number</b> 197617	<b>Received By</b> Saucier, Charlotte M.	Were all samples received using proper chemical preservation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Was preservative added to any container at the lab?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		Were all containers received in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Were all VOA vials received with no head space?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Do all sample labels match the Chain of Custody?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Did the Chain of Custody list the sampling technician?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		Was the COC maintained i.e. all signatures, dates and time of receipt included?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Line Item(s)</b> 1 - Water	<b>Receive Date(s)</b> 04/22/14				

COOLERS			DISCREPANCIES	LAB PRESERVATIONS
<b>Airbill</b>	<b>Thermometer ID:</b> E22	<b>Temp(°C)</b>	None	None
		24.3		

<b>NOTES</b>	
--------------	--

January 30, 2015

Mr. Greg Miller  
ICON Environmental  
2049 Commercial Drive  
Port Allen, LA 70767

RE: Project: VPSB-East White Lake  
Pace Project No.: 30138641

Dear Mr. Miller:

Enclosed are the analytical results for sample(s) received by the laboratory on January 14, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacquelyn Collins  
jacquelyn.collins@pacelabs.com  
Project Manager

Enclosures

cc: Mr. Derek Pourciau



## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, Inc..

## CERTIFICATIONS

Project: VPSB-East White Lake  
Pace Project No.: 30138641

### **Pennsylvania Certification IDs**

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ACCLASS DOD-ELAP Accreditation #: ADE-1544  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California/TNI Certification #: 04222CA  
Colorado Certification  
Connecticut Certification #: PH-0694  
Delaware Certification  
Florida/TNI Certification #: E87683  
Guam/PADEP Certification  
Hawaii/PADEP Certification  
Idaho Certification  
Illinois/PADEP Certification  
Indiana/PADEP Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: 90133  
Louisiana DHH/TNI Certification #: LA140008  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: PA00091  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification  
Missouri Certification #: 235

Montana Certification #: Cert 0082  
Nebraska Certification #: NE-05-29-14  
Nevada Certification  
New Hampshire/TNI Certification #: 2976  
New Jersey/TNI Certification #: PA 051  
New Mexico Certification  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Oregon/TNI Certification #: PA200002  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
South Dakota Certification  
Tennessee Certification #: TN2867  
Texas/TNI Certification #: T104704188  
Utah/TNI Certification #: PA014572014-4  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin/PADEP Certification  
Wyoming Certification #: 8TMS-Q

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: VPSB-East White Lake

Pace Project No.: 30138641

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30138641001	WL-6	Water	01/07/15 12:45	01/14/15 09:20

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: VPSB-East White Lake  
Pace Project No.: 30138641

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30138641001	WL-6	EPA 903.1	JC2	1
		EPA 904.0	JLW	1

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: VPSB-East White Lake

Pace Project No.: 30138641

---

**Method:** EPA 903.1

**Description:** 903.1 Radium 226

**Client:** ICON Environmental

**Date:** January 30, 2015

**General Information:**

1 sample was analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: VPSB-East White Lake

Pace Project No.: 30138641

---

**Method:** EPA 904.0

**Description:** 904.0 Radium 228

**Client:** ICON Environmental

**Date:** January 30, 2015

**General Information:**

1 sample was analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: VPSB-East White Lake

Pace Project No.: 30138641

**Sample: WL-6**      **Lab ID: 30138641001**      Collected: 01/07/15 12:45      Received: 01/14/15 09:20      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1	<b>20.6 ± 3.12 (0.468)</b> <b>C:NA T:97%</b>	pCi/L	01/29/15 11:40	13982-63-3	
Radium-228	EPA 904.0	<b>10.9 ± 2.10 (0.585)</b> <b>C:86% T:94%</b>	pCi/L	01/29/15 15:55	15262-20-1	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: VPSB-East White Lake

Pace Project No.: 30138641

QC Batch: RADC/23035

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Associated Lab Samples: 30138641001

METHOD BLANK: 843776

Matrix: Water

Associated Lab Samples: 30138641001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0939 ± 0.260 (0.625) C:86% T:92%	pCi/L	01/29/15 15:51	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: VPSB-East White Lake

Pace Project No.: 30138641

QC Batch: RADC/23033

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Associated Lab Samples: 30138641001

METHOD BLANK: 843774

Matrix: Water

Associated Lab Samples: 30138641001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.000 ± 0.405 (0.829) C:NA T:96%	pCi/L	01/29/15 11:06	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: VPSB-East White Lake

Pace Project No.: 30138641

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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**CHAIN-OF-CUSTODY / Analytical Request Document**  
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



<b>Section A</b> Required Client Information: Company: <u>CON ENVIRONMENTAL</u> Address: <u>2074 Commercial Dr</u> Email To: <u>Port Allen LA 70367</u> Phone: <u>225-344-8440</u> Fax: Requested Due Date/TAT:		<b>Section B</b> Required Project Information: Report To: <u>Greg Miller</u> Copy To: Purchase Order No.: Project Name: <u>VPSB - East White Lake</u> Project Number: <u>9077-041-0-600</u>		<b>Section C</b> Invoice Information: Attention: Company Name: Address: Pace Quote Reference: Pace Project Manager: Pace Profile #:		Page: <u>1</u> of <u>1</u> 1642231 <b>REGULATORY AGENCY</b> <input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER Site Location: <u>LA</u> STATE:									
<b>Section D</b> Required Client Information Matrix Codes MATRIX / CODE Drinking Water DW Water WT Waste Water WW Product P Soil/Solid SL Oil OL Wipe WP Air AR Tissue TS Other OT  <b>SAMPLE ID</b> (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE 1 <u>WLS6</u> 2 3 4 5 6 7 8 9 10 11 12		Matrix Code SAMPLE TYPE (G=GRAB C=COMP) WT G MATRIX CODE (see valid codes to left)		COLLECTED COMPOSITE START COMPOSITE END/GRAB DATE TIME DATE TIME 1/7/15 12:45		# OF CONTAINERS 2		PRESERVATIVES Unpreserved <input checked="" type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> HNO <sub>3</sub> HCl NaOH Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Methanol Other Analysis Test ↑ RA-226 RA-228		Requested Analysis Filtered (Y/N)		Pace Project No. / Lab I.D. 0931		Residual Chlorine (Y/N)	
ADDITIONAL COMMENTS 1/15/15 12:00 1/14/15 09:20 Fedex Pace		RELINQUISHED BY / AFFILIATION DATE TIME DATE TIME 1/15/15 12:00 1/14/15 09:20		ACCEPTED BY / AFFILIATION DATE TIME 1/15/15 12:00 1/14/15 09:20		SAMPLE CONDITIONS Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)									
ORIGINAL SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: <u>Debra Campbell</u> SIGNATURE of SAMPLER: <u>[Signature]</u> DATE Signed (MM/DD/YYYY): <u>1/15/15</u>															



Sample Condition Upon Receipt

30138641

Client Name: Icon

Project # \_\_\_\_\_

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: 7725 2168 4455

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap  Bubble Bags \_\_\_\_\_ None \_\_\_\_\_ Other \_\_\_\_\_

Thermometer Used N/A Type of Ice: Wet Blue  NO  Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: N/A °C Correction Factor: N/A °C Final Temp: N/A °C

Date and Initials of person examining contents: Am  
1/14/15

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<u>PHCZ</u>
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed <u>Am</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: [Signature] Date: 1/15/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Project Number: 30138641

Client Name: LCA

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubtainer (500 ml / 4L)	Ziploc	Other	Other	
1001	SM																			2					

May 16, 2014

Mr. Greg Miller  
ICON Environmental  
2049 Commercial Drive  
Port Allen, LA 70767

RE: Project: East White Lake  
Pace Project No.: 30119183

Dear Mr. Miller:

Enclosed are the analytical results for sample(s) received by the laboratory on April 29, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacquelyn Collins  
jacquelyn.collins@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: East White Lake  
Pace Project No.: 30119183

### **Pennsylvania Certification IDs**

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601  
ACCLASS DOD-ELAP Accreditation #: ADE-1544  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California/TNI Certification #: 04222CA  
Colorado Certification  
Connecticut Certification #: PH-0694  
Delaware Certification  
Florida/TNI Certification #: E87683  
Guam/PADEP Certification  
Hawaii/PADEP Certification  
Idaho Certification  
Illinois/PADEP Certification  
Indiana/PADEP Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: 90133  
Louisiana DHH/TNI Certification #: LA140008  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: PA00091  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification  
Missouri Certification #: 235

Montana Certification #: Cert 0082  
Nebraska Certification #: NE-05-29-14  
Nevada Certification  
New Hampshire/TNI Certification #: 2976  
New Jersey/TNI Certification #: PA 051  
New Mexico Certification  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Oregon/TNI Certification #: PA200002  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
South Dakota Certification  
Tennessee Certification #: TN2867  
Texas/TNI Certification #: T104704188  
Utah/TNI Certification #: PA014572014-4  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin/PADEP Certification  
Wyoming Certification #: 8TMS-Q

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: East White Lake

Pace Project No.: 30119183

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30119183001	Herbert	Water	04/21/14 12:00	04/29/14 09:40
30119183002	MPA-SB-1	Water	04/21/14 13:45	04/29/14 09:40

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: East White Lake

Pace Project No.: 30119183

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30119183001	Herbert	EPA 903.1	SLA	1
		EPA 904.0	JAL	1
30119183002	MPA-SB-1	EPA 903.1	SLA	1
		EPA 904.0	JAL	1

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: East White Lake  
Pace Project No.: 30119183

---

**Method:** EPA 903.1  
**Description:** 903.1 Radium 226  
**Client:** ICON Environmental  
**Date:** May 16, 2014

**General Information:**

2 samples were analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: East White Lake

Pace Project No.: 30119183

---

**Method:** EPA 904.0

**Description:** 904.0 Radium 228

**Client:** ICON Environmental

**Date:** May 16, 2014

**General Information:**

2 samples were analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: East White Lake

Pace Project No.: 30119183

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 903.1	<b>0.395 ± 0.412 (0.581)</b> C:NA T:80%	pCi/L	05/15/14 12:19	13982-63-3	
Radium-228		EPA 904.0	<b>0.906 ± 0.477 (0.880)</b> C:79% T:93%	pCi/L	05/14/14 12:30	15262-20-1	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 903.1	<b>2.87 ± 0.962 (0.702)</b> C:NA T:99%	pCi/L	05/15/14 12:33	13982-63-3	
Radium-228		EPA 904.0	<b>3.35 ± 0.872 (0.861)</b> C:79% T:72%	pCi/L	05/14/14 12:40	15262-20-1	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: East White Lake

Pace Project No.: 30119183

QC Batch: RADC/19605

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Associated Lab Samples: 30119183001, 30119183002

METHOD BLANK: 723843

Matrix: Water

Associated Lab Samples: 30119183001, 30119183002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.100 ± 0.379 (0.859) C:79% T:76%	pCi/L	05/14/14 12:39	

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: East White Lake

Pace Project No.: 30119183

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### Sample Condition Upon Receipt

JSN  
30119183

Client Name: Iron Project # \_\_\_\_\_

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: 798659479468

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used 6 7 8

Type of Ice: Wet Blue  None

Samples on ice, cooling process has begun

Cooler Temperature NA

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: <u>SRA 4-29-14</u>
--

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>wt</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <u>PHL2</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed <u>SRA</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Project Manager Review: [Signature] Date: 4/30/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i e out of hold, incorrect preservative, out of temp, incorrect containers)

30119183

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Project Number:

Client Name: TCOA



Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500 )	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubtainer (500 ml / 4L)	Ziploc	Other	Other
001	9																							
002	9																							