

APPENDIX B
LABORATORY REPORTS



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

May 26, 2017

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

RE: Guidry/Campbell 9326-012-0100

Order No.: 17050624

Dear Greg Miller:

Element Materials Technology Lafayette received 6 sample(s) on 5/12/2017 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. 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 "Cristina Thibeaux".

Cristina Thibeaux
Customer Service Supervisor
2417 W. Pinhook Road
Lafayette, LA 70508-3344



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Case Narrative

WO#: 17050624
Date: 5/26/2017

CLIENT: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

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#: 17050624

Date Reported: 5/26/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/11/2017 1:20:00 PM
Project: Guidry/Campbell 9326-012-0100
Lab ID: 17050624-001 **Matrix:** SOIL
Client Sample ID GC-17 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	35.0	0.100		meq/100g	1	5/25/2017 3:12:00 PM
29B SALTS						
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	0.29	0.10		mmhos/cm	1	5/22/2017 2:00:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	1.08	0.10		%	1	5/25/2017 3:12:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	2.33	0.10			1	5/23/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/23/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/23/2017
Soluble Sodium	1.53	1.00		meq/L	1	5/23/2017
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.103	0.103		mg/Kg-dry	1	5/19/2017 10:04:59 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	1.46	0.250		mg/L	1	5/25/2017 10:04:41 AM
29B METALS						
METALS IN SOIL OR SLUDGE BY ICP						
Arsenic	6.03	1.99		mg/Kg-dry	1	5/22/2017 9:05:44 PM
Barium	327	0.996		mg/Kg-dry	1	5/22/2017 9:05:44 PM
Cadmium	< 0.498	0.498		mg/Kg-dry	1	5/22/2017 9:05:44 PM
Chromium	12.6	0.996		mg/Kg-dry	1	5/22/2017 9:05:44 PM
Lead	12.3	0.996		mg/Kg-dry	1	5/22/2017 9:05:44 PM
Selenium	< 3.98	3.98		mg/Kg-dry	1	5/22/2017 9:05:44 PM
Strontium	29.9	0.996		mg/Kg-dry	1	5/22/2017 9:05:44 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(consolidated)

WO#: 17050624

Date Reported: 5/26/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/11/2017 1:20:00 PM
Project: Guidry/Campbell 9326-012-0100
Lab ID: 17050624-001 **Matrix:** SOIL
Client Sample ID GC-17 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS					SW6010B	SW3050B Analyst: STS
METALS IN SOIL OR SLUDGE BY ICP						
Zinc	29.9	0.996		mg/Kg-dry	1	5/22/2017 9:05:44 PM
29B METALS					LDNR 29-B	Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	396	46.3		mg/Kg-dry	1	5/23/2017 12:21:16 AM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	16.6	1.00		wt%	1	5/12/2017 2:00:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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Analytical Report

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WO#: 17050624

Date Reported: 5/26/2017

CLIENT: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100
Lab ID: 17050624-002
Client Sample ID GC-17 4-6

Collection Date: 5/11/2017 1:30:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	23.3	0.100		meq/100g	1	5/25/2017 3:12:00 PM
29B SALTS						
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	0.48	0.10		mmhos/cm	1	5/22/2017 2:00:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	2.25	0.10		%	1	5/25/2017 3:12:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	2.69	0.10			1	5/23/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/23/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/23/2017
Soluble Sodium	2.44	1.00		meq/L	1	5/23/2017
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.103	0.103		mg/Kg-dry	1	5/19/2017 10:12:56 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	16.7	0.500		mg/L	2	5/25/2017 10:18:24 AM
29B METALS						
METALS IN SOIL OR SLUDGE BY ICP						
Arsenic	9.87	1.99		mg/Kg-dry	1	5/22/2017 9:11:27 PM
Barium	239	0.996		mg/Kg-dry	1	5/22/2017 9:11:27 PM
Cadmium	< 0.498	0.498		mg/Kg-dry	1	5/22/2017 9:11:27 PM
Chromium	13.6	0.996		mg/Kg-dry	1	5/22/2017 9:11:27 PM
Lead	12.2	0.996		mg/Kg-dry	1	5/22/2017 9:11:27 PM
Selenium	< 3.98	3.98		mg/Kg-dry	1	5/22/2017 9:11:27 PM
Strontium	27.9	0.996		mg/Kg-dry	1	5/22/2017 9:11:27 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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Analytical Report

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WO#: **17050624**

Date Reported: **5/26/2017**

CLIENT: ICON Environmental Services **Collection Date:** 5/11/2017 1:30:00 PM
Project: Guidry/Campbell 9326-012-0100
Lab ID: 17050624-002 **Matrix:** SOIL
Client Sample ID GC-17 4-6

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS METALS IN SOIL OR SLUDGE BY ICP					SW6010B	SW3050B Analyst: STS
Zinc	54.3	0.996		mg/Kg-dry	1	5/22/2017 9:11:27 PM
29B METALS TRUE TOTAL BARIUM					LDNR 29-B	Analyst: STS
True Total Barium	280	47.0		mg/Kg-dry	1	5/23/2017 12:25:43 AM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	15.3	1.00		wt%	1	5/12/2017 2:00:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
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WO#: 17050624

Date Reported: 5/26/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/11/2017 1:40:00 PM
Project: Guidry/Campbell 9326-012-0100
Lab ID: 17050624-003 **Matrix:** SOIL
Client Sample ID GC-17 8-10

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	0.33	0.10		mmhos/cm	1	5/22/2017 2:00:00 PM
TPH-D/O IN SOIL BY SW8015				SW8015B	SW3550C	Analyst: KKD
TPH DRO/ORO IN SOIL BY SW8015						
TPH (Diesel Range)	784	50.0		mg/Kg	1	5/18/2017 10:18:00 AM
TPH (Oil Range)	323	50.0		mg/Kg	1	5/18/2017 10:18:00 AM
Surr: 4-Terphenyl-d14	129	33 - 152		%Rec	1	5/18/2017 10:18:00 AM
29B METALS				29B/SW7471A	SW7471A	Analyst: MRM
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.0995	0.0995		mg/Kg-dry	1	5/19/2017 10:15:16 AM
29B METALS				SW6010B	SW3050B	Analyst: STS
METALS IN SOIL OR SLUDGE BY ICP						
Arsenic	6.75	1.99		mg/Kg-dry	1	5/22/2017 9:17:22 PM
Barium	231	0.994		mg/Kg-dry	1	5/22/2017 9:17:22 PM
Cadmium	< 0.497	0.497		mg/Kg-dry	1	5/22/2017 9:17:22 PM
Chromium	13.2	0.994		mg/Kg-dry	1	5/22/2017 9:17:22 PM
Lead	10.1	0.994		mg/Kg-dry	1	5/22/2017 9:17:22 PM
Selenium	< 3.98	3.98		mg/Kg-dry	1	5/22/2017 9:17:22 PM
Strontium	26.3	0.994		mg/Kg-dry	1	5/22/2017 9:17:22 PM
Zinc	46.7	0.994		mg/Kg-dry	1	5/22/2017 9:17:22 PM
29B METALS				LDNR 29-B		Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	281	46.8		mg/Kg-dry	1	5/23/2017 12:30:13 AM
PERCENT MOISTURE				LDNR 29-B		Analyst: GXW
Percent Moisture	21.4	1.00		wt%	1	5/12/2017 2:00:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
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	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
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Analytical Report

(consolidated)

WO#: 17050624

Date Reported: 5/26/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/11/2017 1:45:00 PM
Project: Guidry/Campbell 9326-012-0100
Lab ID: 17050624-004 **Matrix:** SOIL
Client Sample ID GC-17 10-12

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B	Analyst: MMT	
Electrical Conductivity	0.39	0.10		mmhos/cm	1	5/22/2017 2:00:00 PM
TPH-D/O IN SOIL BY SW8015				SW8015B	SW3550C	Analyst: KKD
TPH DRO/ORO IN SOIL BY SW8015						
TPH (Diesel Range)	452	50.0		mg/Kg	1	5/18/2017 10:35:00 AM
TPH (Oil Range)	194	50.0		mg/Kg	1	5/18/2017 10:35:00 AM
Surr: 4-Terphenyl-d14	104	33 - 152		%Rec	1	5/18/2017 10:35:00 AM
29B METALS				29B/SW7471A	SW7471A	Analyst: MRM
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.0987	0.0987		mg/Kg-dry	1	5/19/2017 10:17:36 AM
29B METALS				SW6010B	SW3050B	Analyst: STS
METALS IN SOIL OR SLUDGE BY ICP						
Arsenic	11.1	1.99	*	mg/Kg-dry	1	5/22/2017 9:23:03 PM
Barium	188	0.993		mg/Kg-dry	1	5/22/2017 9:23:03 PM
Cadmium	< 0.496	0.496		mg/Kg-dry	1	5/22/2017 9:23:03 PM
Chromium	13.1	0.993		mg/Kg-dry	1	5/22/2017 9:23:03 PM
Lead	10.8	0.993		mg/Kg-dry	1	5/22/2017 9:23:03 PM
Selenium	< 3.97	3.97		mg/Kg-dry	1	5/22/2017 9:23:03 PM
Strontium	22.8	0.993		mg/Kg-dry	1	5/22/2017 9:23:03 PM
Zinc	47.1	0.993		mg/Kg-dry	1	5/22/2017 9:23:03 PM
29B METALS				LDNR 29-B	Analyst: STS	
TRUE TOTAL BARIUM						
True Total Barium	254	48.0		mg/Kg-dry	1	5/23/2017 12:34:41 AM
PERCENT MOISTURE				LDNR 29-B	Analyst: GXW	
Percent Moisture	21.8	1.00		wt%	1	5/12/2017 2:00:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(consolidated)

WO#: 17050624

Date Reported: 5/26/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/11/2017 2:10:00 PM
Project: Guidry/Campbell 9326-012-0100
Lab ID: 17050624-005 **Matrix:** SOIL
Client Sample ID GC-17 20-22

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B	Analyst: MMT	
Electrical Conductivity	0.82	0.10		mmhos/cm	1	5/22/2017 2:00:00 PM
PERCENT MOISTURE				LDNR 29-B	Analyst: GXW	
Percent Moisture	25.3	1.00		wt%	1	5/12/2017 2:00:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(consolidated)

WO#: **17050624**

Date Reported: **5/26/2017**

CLIENT: ICON Environmental Services **Collection Date:** 5/11/2017 3:40:00 PM
Project: Guidry/Campbell 9326-012-0100
Lab ID: 17050624-006 **Matrix:** SOIL
Client Sample ID GC-17 32-34

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	0.42	0.10		mmhos/cm	1	5/22/2017 2:00:00 PM
PERCENT MOISTURE				LDNR 29-B		Analyst: GXW
Percent Moisture	18.9	1.00		wt%	1	5/12/2017 2:00:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: 23116

Sample ID: 17050430-006BMS-D	SampType: MS	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/12/2017	RunNo: 61232						
Client ID: ZZZZZZ	Batch ID: 23116	TestNo: SW8015B	SW3550C	Analysis Date: 5/18/2017	SeqNo: 1508800						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	182	10.0	100.0	66.97	115	23.4	123				
Surr: 4-Terphenyl-d14	2.91		3.330		87.4	33	152				

Sample ID: 17050430-006BMSD-	SampType: MSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/12/2017	RunNo: 61232						
Client ID: ZZZZZZ	Batch ID: 23116	TestNo: SW8015B	SW3550C	Analysis Date: 5/18/2017	SeqNo: 1508801						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	156	10.0	100.0	66.97	89.2	23.4	123	181.8	15.2	35.6	
Surr: 4-Terphenyl-d14	2.65		3.330		79.5	33	152		0	40	

Sample ID: 17050430-007BMS-M	SampType: MS	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/12/2017	RunNo: 61232						
Client ID: ZZZZZZ	Batch ID: 23116	TestNo: SW8015B	SW3550C	Analysis Date: 5/18/2017	SeqNo: 1508803						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	88.2	50.0	100.0	0	88.2	14.5	174				
Surr: 4-Terphenyl-d14	2.86		3.330		85.9	33	152				

Sample ID: 17050430-007BMSD-	SampType: MSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/12/2017	RunNo: 61232						
Client ID: ZZZZZZ	Batch ID: 23116	TestNo: SW8015B	SW3550C	Analysis Date: 5/18/2017	SeqNo: 1508804						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	84.1	50.0	100.0	0	84.1	14.5	174	88.19	4.79	48.8	
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Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceed
M Matrix Interference	ND Not Detected at the Reporting Limit	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: 23116

Sample ID: 17050430-007BMSD-	SampType: MSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/12/2017	RunNo: 61232						
Client ID: ZZZZZZ	Batch ID: 23116	TestNo: SW8015B	SW3550C	Analysis Date: 5/18/2017	SeqNo: 1508804						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 4-Terphenyl-d14	2.88		3.330		86.5	33	152		0	40	
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Sample ID: LCS-D-23116	SampType: LCS	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/12/2017	RunNo: 61232						
Client ID: LCSS	Batch ID: 23116	TestNo: SW8015B	SW3550C	Analysis Date: 5/18/2017	SeqNo: 1508811						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	80.0	10.0	100.0	0	80.0	63.4	109				
Surr: 4-Terphenyl-d14	3.04		3.330		91.2	33	152				

Sample ID: LCSD-D-23116	SampType: LCSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/12/2017	RunNo: 61232						
Client ID: LCSS02	Batch ID: 23116	TestNo: SW8015B	SW3550C	Analysis Date: 5/18/2017	SeqNo: 1508812						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	85.5	10.0	100.0	0	85.5	63.4	109	80.03	6.62	17.2	
Surr: 4-Terphenyl-d14	3.13		3.330		93.9	33	152		0	40	

Sample ID: LCSD-M-23116	SampType: LCSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/12/2017	RunNo: 61232						
Client ID: LCSS02	Batch ID: 23116	TestNo: SW8015B	SW3550C	Analysis Date: 5/18/2017	SeqNo: 1508813						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	87.8	10.0	100.0	0	87.8	63.9	120	78.66	11.0	16.6	
Surr: 4-Terphenyl-d14	3.29		3.330		98.7	33	152		0	40	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceed
M Matrix Interference	ND Not Detected at the Reporting Limit	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: 23116

Sample ID: LCSD-M-23116	SampType: LCSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/12/2017	RunNo: 61232
Client ID: LCSS02	Batch ID: 23116	TestNo: SW8015B	SW3550C	Analysis Date: 5/18/2017	SeqNo: 1508813
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Sample ID: LCS-M-23116	SampType: LCS	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/12/2017	RunNo: 61232
Client ID: LCSS	Batch ID: 23116	TestNo: SW8015B	SW3550C	Analysis Date: 5/18/2017	SeqNo: 1508814
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
TPH (Oil Range)	78.7	10.0	100.0	0	78.7 63.9 120
Surr: 4-Terphenyl-d14	3.00		3.330		90.0 33 152

Sample ID: MB-23116	SampType: MBLK	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/12/2017	RunNo: 61232
Client ID: PBS	Batch ID: 23116	TestNo: SW8015B	SW3550C	Analysis Date: 5/18/2017	SeqNo: 1508815
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	3.07		3.330		92.2 33 152

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	H	Holding times for preparation or analysis exceed
M	Matrix Interference	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
W	Sample container temperature is out of limit as specified at testcode				



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: 23124

Sample ID: LCSD-23124	SampType: LCSD	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/18/2017	RunNo: 61297						
Client ID: LCSS02	Batch ID: 23124	TestNo: 29B/SW7471 SW7471A		Analysis Date: 5/19/2017	SeqNo: 1509696						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.870	0.100	0.8330	0	104	80	120	0.8651	0.598	20
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Sample ID: 17050624-001AMS	SampType: MS	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/18/2017	RunNo: 61297						
Client ID: GC-17 0-2	Batch ID: 23124	TestNo: 29B/SW7471 SW7471A		Analysis Date: 5/19/2017	SeqNo: 1509698						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.917	0.103	0.8585	0	107	75	125
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Sample ID: 17050624-001AMSD	SampType: MSD	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/18/2017	RunNo: 61297						
Client ID: GC-17 0-2	Batch ID: 23124	TestNo: 29B/SW7471 SW7471A		Analysis Date: 5/19/2017	SeqNo: 1509699						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.880	0.101	0.8387	0	105	75	125	0.9172	4.18	20
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Sample ID: MB-23124	SampType: MBLK	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/18/2017	RunNo: 61297						
Client ID: PBS	Batch ID: 23124	TestNo: 29B/SW7471 SW7471A		Analysis Date: 5/19/2017	SeqNo: 1509725						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	< 0.100	0.100
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Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceed
M Matrix Interference	ND Not Detected at the Reporting Limit	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050624

26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: 23124

Sample ID: LCS-23124	SampType: LCS	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/18/2017	RunNo: 61297						
Client ID: LCSS	Batch ID: 23124	TestNo: 29B/SW7471 SW7471A	Analysis Date: 5/19/2017	SeqNo: 1509726							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.865	0.100	0.8330	0	104	80	120				

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	H	Holding times for preparation or analysis exceed
M	Matrix Interference	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
W	Sample container temperature is out of limit as specified at testcode				



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: 23182

Sample ID: MB-23182	SampType: MBLK	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/19/2017	RunNo: 61379						
Client ID: PBS	Batch ID: 23182	TestNo: SW6010B SW3050B		Analysis Date: 5/22/2017	SeqNo: 1512013						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	< 2.00	2.00									
Barium	< 1.00	1.00									
Cadmium	< 0.500	0.500									
Chromium	< 1.00	1.00									
Lead	< 1.00	1.00									
Selenium	< 4.00	4.00									
Strontium	< 1.00	1.00									
Zinc	< 1.00	1.00									

Sample ID: LCS-23182	SampType: LCS	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/19/2017	RunNo: 61379						
Client ID: LCSS	Batch ID: 23182	TestNo: SW6010B SW3050B		Analysis Date: 5/22/2017	SeqNo: 1512014						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	49.4	2.00	50.00	0	98.7	80	120				
Barium	49.8	1.00	50.00	0	99.6	80	120				
Cadmium	49.5	0.500	50.00	0	99.0	80	120				
Chromium	49.9	1.00	50.00	0	99.9	80	120				
Lead	49.9	1.00	50.00	0	99.9	80	120				
Selenium	48.5	4.00	50.00	0	97.0	80	120				
Strontium	51.0	1.00	50.00	0	102	80	120				
Zinc	49.1	1.00	50.00	0	98.2	80	120				

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceed
M Matrix Interference	ND Not Detected at the Reporting Limit	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: 23182

Sample ID: LCSD-23182	SampType: LCSD	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/19/2017	RunNo: 61379						
Client ID: LCSS02	Batch ID: 23182	TestNo: SW6010B	SW3050B	Analysis Date: 5/22/2017	SeqNo: 1512015						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	49.4	2.00	50.00	0	98.8	80	120	49.37	0.101	20	
Barium	50.0	1.00	50.00	0	100	80	120	49.79	0.381	20	
Cadmium	49.7	0.500	50.00	0	99.4	80	120	49.51	0.363	20	
Chromium	50.0	1.00	50.00	0	100	80	120	49.93	0.220	20	
Lead	49.6	1.00	50.00	0	99.2	80	120	49.94	0.663	20	
Selenium	49.0	4.00	50.00	0	97.9	80	120	48.49	0.944	20	
Strontium	50.7	1.00	50.00	0	101	80	120	50.98	0.472	20	
Zinc	49.3	1.00	50.00	0	98.5	80	120	49.12	0.285	20	

Sample ID: 17050035-009AMS	SampType: MS	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/19/2017	RunNo: 61379						
Client ID: ZZZZZ	Batch ID: 23182	TestNo: SW6010B	SW3050B	Analysis Date: 5/22/2017	SeqNo: 1512017						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	58.2	1.98	49.56	10.13	97.1	75	125				
Barium	259	0.991	49.56	215.4	88.5	75	125				
Cadmium	48.8	0.496	49.56	0.5369	97.3	75	125				
Chromium	69.1	0.991	49.56	17.61	104	75	125				
Lead	62.4	0.991	49.56	15.23	95.1	75	125				
Selenium	30.8	3.97	49.56	0	62.1	75	125				S
Zinc	126	0.991	49.56	77.87	97.1	75	125				

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceed
M Matrix Interference	ND Not Detected at the Reporting Limit	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: 23182

Sample ID: 17050035-009AMSD	SampType: MSD	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/19/2017	RunNo: 61379						
Client ID: ZZZZZZ	Batch ID: 23182	TestNo: SW6010B	SW3050B	Analysis Date: 5/22/2017	SeqNo: 1512018						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	60.7	1.99	49.81	10.13	102	75	125	58.24	4.17	20	
Barium	265	0.996	49.81	215.4	100	75	125	259.2	2.35	20	
Cadmium	49.8	0.498	49.81	0.5369	98.9	75	125	48.77	2.09	20	
Chromium	70.7	0.996	49.81	17.61	107	75	125	69.09	2.34	20	
Lead	64.0	0.996	49.81	15.23	97.9	75	125	62.37	2.57	20	
Selenium	32.3	3.98	49.81	0	64.8	75	125	30.79	4.78	20	S
Zinc	129	0.996	49.81	77.87	102	75	125	126.0	2.29	20	

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

Sample ID: 17050035-009AMS	SampType: MS	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/19/2017	RunNo: 61379						
Client ID: ZZZZZZ	Batch ID: 23182	TestNo: SW6010B	SW3050B	Analysis Date: 5/22/2017	SeqNo: 1512037						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Strontium	217	9.91	49.56	0	439	75	125				S

Sample ID: 17050035-009AMSD	SampType: MSD	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/19/2017	RunNo: 61379						
Client ID: ZZZZZZ	Batch ID: 23182	TestNo: SW6010B	SW3050B	Analysis Date: 5/22/2017	SeqNo: 1512038						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Strontium	217	9.96	49.81	161.7	110	75	125	217.4	0.373	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceed
M Matrix Interference	ND Not Detected at the Reporting Limit	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6546
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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: 23199

Sample ID: MB-23199	SampType: MBLK	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/22/2017	RunNo: 61379
Client ID: PBS	Batch ID: 23199	TestNo: LDNR 29-B		Analysis Date: 5/22/2017	SeqNo: 1512054
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

True Total Barium < 50.0 50.0

Sample ID: LCS-23199	SampType: LCS	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/22/2017	RunNo: 61379
Client ID: LCSS	Batch ID: 23199	TestNo: LDNR 29-B		Analysis Date: 5/22/2017	SeqNo: 1512055
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

True Total Barium 5,010 50.0 5,000 0 100 75 125

Sample ID: LCSD-23199	SampType: LCSD	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/22/2017	RunNo: 61379
Client ID: LCSS02	Batch ID: 23199	TestNo: LDNR 29-B		Analysis Date: 5/22/2017	SeqNo: 1512056
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

True Total Barium 4,970 50.0 5,000 0 99.4 75 125 5,010 0.812 20

Sample ID: 17050035-017AMS	SampType: MS	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/22/2017	RunNo: 61379
Client ID: ZZZZZ	Batch ID: 23199	TestNo: LDNR 29-B		Analysis Date: 5/22/2017	SeqNo: 1512060
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

True Total Barium 5,000 46.7 4,669 266.1 101 75 125

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceed
M Matrix Interference	ND Not Detected at the Reporting Limit	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: 23199

Sample ID: 17050035-017AMSD	SampType: MSD	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/22/2017	RunNo: 61379						
Client ID: ZZZZZZ	Batch ID: 23199	TestNo: LDNR 29-B		Analysis Date: 5/22/2017	SeqNo: 1512061						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium	4,860	46.0	4,600	266.1	99.8	75	125	5,005	2.99	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	H	Holding times for preparation or analysis exceed
M	Matrix Interference	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
W	Sample container temperature is out of limit as specified at testcode				



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: 23209

Sample ID: 17050417-003ADUP	SampType: DUP	TestCode: SAR_S	Units:	Prep Date: 5/23/2017	RunNo: 61392						
Client ID: ZZZZZZ	Batch ID: 23209	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/23/2017	SeqNo: 1512162						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium Adsorption Ratio	0.94	0.10						0.91	2.91	20	
Soluble Calcium	1.18	1.00						1.18	0	20	
Soluble Magnesium	< 1.00	1.00						0	0	20	
Soluble Sodium	< 1.00	1.00						0	0	20	

Sample ID: 17050505-005ADUP	SampType: DUP	TestCode: SAR_S	Units:	Prep Date: 5/23/2017	RunNo: 61392						
Client ID: ZZZZZZ	Batch ID: 23209	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/23/2017	SeqNo: 1512219						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium Adsorption Ratio	37.9	0.10						37.04	2.32	20	*
Soluble Calcium	21.1	1.00						21.13	0.17	20	
Soluble Magnesium	9.89	1.00						9.69	2.10	20	
Soluble Sodium	149	1.00						145.4	2.60	20	

Sample ID: 17050628-007ADUP	SampType: DUP	TestCode: SAR_S	Units:	Prep Date: 5/23/2017	RunNo: 61392						
Client ID: ZZZZZZ	Batch ID: 23209	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/23/2017	SeqNo: 1512232						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium Adsorption Ratio	12.0	0.10						12.20	1.83	20	
Soluble Calcium	12.0	1.00						11.97	0.04	20	
Soluble Magnesium	5.11	1.00						5.21	1.82	20	
Soluble Sodium	35.0	1.00						35.74	2.09	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	H	Holding times for preparation or analysis exceed
M	Matrix Interference	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
W	Sample container temperature is out of limit as specified at testcode				



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: 23263

Sample ID: 17050417-003ADUP	SampType: DUP	TestCode: ESP_S	Units: %	Prep Date: 5/23/2017	RunNo: 61463						
Client ID: ZZZZZZ	Batch ID: 23263	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/25/2017	SeqNo: 1513887						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Exchangeable Sodium %	0.68	0.10						0.70	3.71	20	
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Sample ID: 17050505-005ADUP	SampType: dup	TestCode: ESP_S	Units: %	Prep Date: 5/23/2017	RunNo: 61463						
Client ID: ZZZZZZ	Batch ID: 23263	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/25/2017	SeqNo: 1513909						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Exchangeable Sodium %	17.3	0.10						19.39	11.2	20	*
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Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceed
M Matrix Interference	ND Not Detected at the Reporting Limit	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: 23264

Sample ID: 17050417-003ADUP	SampType: DUP	TestCode: CEC	Units: meq/100g	Prep Date: 5/23/2017	RunNo: 61462						
Client ID: ZZZZZZ	Batch ID: 23264	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/25/2017	SeqNo: 1513880						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cation Exchange Capacity	15.3	0.100						14.56	4.72	20	
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Sample ID: 17050505-005ADUP	SampType: dup	TestCode: CEC	Units: meq/100g	Prep Date: 5/23/2017	RunNo: 61462						
Client ID: ZZZZZZ	Batch ID: 23264	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/25/2017	SeqNo: 1513896						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cation Exchange Capacity	22.6	0.100						18.98	17.2	20	
--------------------------	------	-------	--	--	--	--	--	-------	------	----	--

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceed
M Matrix Interference	ND Not Detected at the Reporting Limit	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: R61345

Sample ID: MB-R61345	SampType: MBLK	TestCode: EC_S	Units: mmhos/cm	Prep Date:	RunNo: 61345						
Client ID: PBS	Batch ID: R61345	TestNo: LDNR 29-B		Analysis Date: 5/22/2017	SeqNo: 1511854						
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: LCS1-R61345	SampType: LCS1	TestCode: EC_S	Units: mmhos/cm	Prep Date:	RunNo: 61345						
Client ID: ZZZZZ	Batch ID: R61345	TestNo: LDNR 29-B		Analysis Date: 5/22/2017	SeqNo: 1511855						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 0.51 0.10 0.46 0 110 90.06 109.93

Sample ID: LCS2-R61345	SampType: LCS2	TestCode: EC_S	Units: mmhos/cm	Prep Date:	RunNo: 61345						
Client ID: ZZZZZ	Batch ID: R61345	TestNo: LDNR 29-B		Analysis Date: 5/22/2017	SeqNo: 1511856						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 56.9 0.10 53.00 0 107 90 110

Sample ID: 17050628-007ADUP	SampType: DUP	TestCode: EC_S	Units: mmhos/cm	Prep Date:	RunNo: 61345						
Client ID: ZZZZZ	Batch ID: R61345	TestNo: LDNR 29-B		Analysis Date: 5/22/2017	SeqNo: 1511864						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 5.50 0.10 5.29 3.89 20 *

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceed
M Matrix Interference	ND Not Detected at the Reporting Limit	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: R61423

Sample ID: 17050505-005ADUP	SampType: dup	TestCode: PMOIST	Units: wt%	Prep Date:	RunNo: 61423						
Client ID: ZZZZZZ	Batch ID: R61423	TestNo: LDNR 29-B		Analysis Date: 5/11/2017	SeqNo: 1513237						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	25.5	1.00						24.91	2.42	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	H	Holding times for preparation or analysis exceed
M	Matrix Interference	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
W	Sample container temperature is out of limit as specified at testcode				



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: R61435

Sample ID: MBLK	SampType: MBLK	TestCode: 9056_LEACH	Units: mg/L	Prep Date:	RunNo: 61435						
Client ID: PBW	Batch ID: R61435	TestNo: SW9056A		Analysis Date: 5/25/2017	SeqNo: 1514285						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride < 0.250 0.250

Sample ID: LCS	SampType: LCS	TestCode: 9056_LEACH	Units: mg/L	Prep Date:	RunNo: 61435						
Client ID: LCSW	Batch ID: R61435	TestNo: SW9056A		Analysis Date: 5/25/2017	SeqNo: 1514286						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride 9.80 0.250 10.00 0 98.0 80 120

Sample ID: LCSD	SampType: LCSD	TestCode: 9056_LEACH	Units: mg/L	Prep Date:	RunNo: 61435						
Client ID: LCSS02	Batch ID: R61435	TestNo: SW9056A		Analysis Date: 5/25/2017	SeqNo: 1514287						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride 9.74 0.250 10.00 0 97.4 80 120 9.805 0.664 15

Sample ID: 17050624-002AMS	SampType: MS	TestCode: 9056_LEACH	Units: mg/L	Prep Date:	RunNo: 61435						
Client ID: GC-17 4-6	Batch ID: R61435	TestNo: SW9056A		Analysis Date: 5/25/2017	SeqNo: 1514290						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride 26.4 0.500 10.00 16.72 96.8 80 120

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceed
M Matrix Interference	ND Not Detected at the Reporting Limit	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17050624
 26-May-17

Client: ICON Environmental Services
Project: Guidry/Campbell 9326-012-0100

BatchID: R61435

Sample ID: 17050624-002AMSD	SampType: MSD	TestCode: 9056_LEACH	Units: mg/L	Prep Date:	RunNo: 61435						
Client ID: GC-17 4-6	Batch ID: R61435	TestNo: SW9056A		Analysis Date: 5/25/2017	SeqNo: 1514291						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	26.1	0.500	10.00	16.72	94.1	80	120	26.40	1.01	15	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	H	Holding times for preparation or analysis exceed
M	Matrix Interference	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
W	Sample container temperature is out of limit as specified at testcode				



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Sample Log-In Check List

Client Name: **ICON_ENV** Work Order Number: **17050624** RcptNo: **1**

Logged by:	Danielle Hollier	5/12/2017 11:30:00 AM	<i>Danielle Hollier</i>
Completed By:	Danielle Hollier	5/12/2017 11:55:20 AM	<i>Danielle Hollier</i>
Reviewed By:	Caitlin Duplantis	5/17/2017 10:07:14 AM	<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)

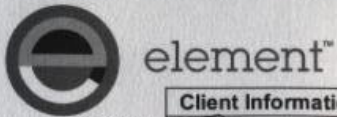
17. Was client notified of all discrepancies with this order? Yes No NA

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	4.9	Good	Not Present			



Chain of Custody

Laboratory Number: **17050624**

Client Information:		Billing Information:		PO Number:	Project Name/Number:	Page 1 of 1
Company Name:	Icon Env				Grudry Campbell	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
Contact Name:	Jason Sillis			Quote Number:	9326-012-0100	
Address:	7049 Commercial Dr			Required QC Level:	Sampler's Signature: 	
City, State Zip:	Port Allen La 70267	same		Bill Monthly:	Shipping Method:	
Phone Number:	225 344 8490	Ext:		<input type="checkbox"/> Yes	UPS / FedEx / NOW	
Fax Number:				<input type="checkbox"/> No	DHL / Element / (Hand) / Mail	
E-mail Address:						

Which Regulations Apply:	Turn Time	Collection Information	Matrix	Quantity	Container	Pres.	Requested Tests						Comments		
							Date	Time	Grab / Composite	Type	HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	EC		SAR/ESP	CEC
<input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USDA/FDA <input type="checkbox"/> RECAP/RISC	<input type="checkbox"/> Drinking Water <input type="checkbox"/> Distribution <input type="checkbox"/> Special <input type="checkbox"/> State <input type="checkbox"/> Other	<input type="checkbox"/> Standard RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> Other													

	Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
1		5-12-17 / 1100		5-12-17 / 1100	
2					Received at lab on ice?
3		5-12-17 / 1130	Dubodant	5-12-17 / 1130	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 4.9°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.

- 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
- 909 Executive Dr Warsaw, IN 46580-2368 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 574-273-5699
- 2417 W. Pinhook Rd Lafayette, LA 70508-3344 USA P 337-235-0483 F 337-233-6540



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

May 31, 2017

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

RE: Guidry Campbell 9326-012-0100

Order No.: 17050879

Dear Greg Miller:

Element Materials Technology Lafayette received 30 sample(s) on 5/19/2017 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. 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, appearing to read "Cristina Thibeaux", is written over a light blue horizontal line.

Cristina Thibeaux
Customer Service Supervisor
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

Case Narrative

WO#: 17050879
Date: 5/31/2017

CLIENT: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

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).



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

Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/15/2017 3:00:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-001 **Matrix:** SOLID
Client Sample ID GC-19 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	24.7	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	2.33	0.10		mmhos/cm	1	5/25/2017 4:00:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	31.3	0.10	*	%	1	5/26/2017 3:09:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	33.6	0.10	*		1	5/30/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Sodium	19.0	1.00		meq/L	1	5/30/2017
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.106	0.106		mg/Kg-dry	1	5/25/2017 10:02:32 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	82.7	2.50		mg/L	10	5/31/2017 10:07:37 AM
29B METALS						
METALS IN SOIL OR SLUDGE BY ICP						
Arsenic	10.8	1.98	*	mg/Kg-dry	1	5/24/2017 6:09:26 PM
Barium	317	0.992		mg/Kg-dry	1	5/24/2017 6:09:26 PM
Cadmium	< 0.496	0.496		mg/Kg-dry	1	5/24/2017 6:09:26 PM
Chromium	15.7	0.992		mg/Kg-dry	1	5/24/2017 6:09:26 PM
Lead	14.5	0.992		mg/Kg-dry	1	5/24/2017 6:09:26 PM
Selenium	< 3.97	3.97		mg/Kg-dry	1	5/24/2017 6:09:26 PM
Strontium	41.4	0.992		mg/Kg-dry	1	5/24/2017 6:09:26 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/15/2017 3:00:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-001 **Matrix:** SOLID
Client Sample ID GC-19 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS					SW6010B	SW3050B Analyst: STS
METALS IN SOIL OR SLUDGE BY ICP						
Zinc	49.6	0.992		mg/Kg-dry	1	5/24/2017 6:09:26 PM
29B METALS					LDNR 29-B	Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	484	46.0		mg/Kg-dry	1	5/24/2017 4:06:03 PM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	17.3	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/15/2017 3:05:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-002 **Matrix:** SOLID
Client Sample ID GC-19 4-6

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	16.2	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	2.66	0.10		mmhos/cm	1	5/25/2017 4:00:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	52.4	0.10	*	%	1	5/26/2017 3:09:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	30.2	0.10	*		1	5/30/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Sodium	21.6	1.00		meq/L	1	5/30/2017
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.106	0.106		mg/Kg-dry	1	5/25/2017 10:10:10 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	115	2.50		mg/L	10	5/30/2017 4:43:03 PM
29B METALS						
METALS IN SOIL OR SLUDGE BY ICP						
Arsenic	9.57	1.98		mg/Kg-dry	1	5/24/2017 6:28:24 PM
Barium	218	0.991		mg/Kg-dry	1	5/24/2017 6:28:24 PM
Cadmium	< 0.496	0.496		mg/Kg-dry	1	5/24/2017 6:28:24 PM
Chromium	15.6	0.991		mg/Kg-dry	1	5/24/2017 6:28:24 PM
Lead	11.0	0.991		mg/Kg-dry	1	5/24/2017 6:28:24 PM
Selenium	< 3.96	3.96		mg/Kg-dry	1	5/24/2017 6:28:24 PM
Strontium	32.2	0.991		mg/Kg-dry	1	5/24/2017 6:28:24 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/15/2017 3:05:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-002 **Matrix:** SOLID
Client Sample ID GC-19 4-6

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS					SW6010B	SW3050B Analyst: STS
METALS IN SOIL OR SLUDGE BY ICP						
Zinc	56.5	0.991		mg/Kg-dry	1	5/24/2017 6:28:24 PM
29B METALS					LDNR 29-B	Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	261	46.2		mg/Kg-dry	1	5/24/2017 4:23:24 PM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	17.8	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-003
Client Sample ID GC-19 8-10

Collection Date: 5/15/2017 3:15:00 PM

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	15.1	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	1.54	0.10		mmhos/cm	1	5/25/2017 4:00:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	42.4	0.10	*	%	1	5/26/2017 3:09:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	21.5	0.10	*		1	5/30/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Sodium	13.5	1.00		meq/L	1	5/30/2017
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.0997	0.0997		mg/Kg-dry	1	5/25/2017 10:12:30 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	37.4	2.50		mg/L	10	5/30/2017 4:56:46 PM
29B METALS						
METALS IN SOIL OR SLUDGE BY ICP						
Arsenic	12.1	1.98	*	mg/Kg-dry	1	5/24/2017 6:32:12 PM
Barium	218	0.992		mg/Kg-dry	1	5/24/2017 6:32:12 PM
Cadmium	< 0.496	0.496		mg/Kg-dry	1	5/24/2017 6:32:12 PM
Chromium	11.5	0.992		mg/Kg-dry	1	5/24/2017 6:32:12 PM
Lead	10.5	0.992		mg/Kg-dry	1	5/24/2017 6:32:12 PM
Selenium	< 3.97	3.97		mg/Kg-dry	1	5/24/2017 6:32:12 PM
Strontium	44.7	0.992		mg/Kg-dry	1	5/24/2017 6:32:12 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/15/2017 3:15:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-003 **Matrix:** SOLID
Client Sample ID GC-19 8-10

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS					SW6010B	SW3050B Analyst: STS
METALS IN SOIL OR SLUDGE BY ICP						
Zinc	53.2	0.992		mg/Kg-dry	1	5/24/2017 6:32:12 PM
29B METALS					LDNR 29-B	Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	282	49.0		mg/Kg-dry	1	5/24/2017 4:26:47 PM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	24.2	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-004
Client Sample ID GC-19 16-18

Collection Date: 5/15/2017 3:35:00 PM

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	1.59	0.10		mmhos/cm	1	5/25/2017 4:00:00 PM
29B METALS MERCURY IN SOIL OR SLUDGE				29B/SW7471A SW7471A		Analyst: MRM
Mercury	< 0.108	0.108		mg/Kg-dry	1	5/25/2017 10:14:50 AM
29B METALS METALS IN SOIL OR SLUDGE BY ICP				SW6010B SW3050B		Analyst: STS
Arsenic	4.61	1.98		mg/Kg-dry	1	5/24/2017 6:35:52 PM
Barium	134	0.992		mg/Kg-dry	1	5/24/2017 6:35:52 PM
Cadmium	< 0.496	0.496		mg/Kg-dry	1	5/24/2017 6:35:52 PM
Chromium	19.2	0.992		mg/Kg-dry	1	5/24/2017 6:35:52 PM
Lead	9.27	0.992		mg/Kg-dry	1	5/24/2017 6:35:52 PM
Selenium	< 3.97	3.97		mg/Kg-dry	1	5/24/2017 6:35:52 PM
Strontium	40.8	0.992		mg/Kg-dry	1	5/24/2017 6:35:52 PM
Zinc	47.7	0.992		mg/Kg-dry	1	5/24/2017 6:35:52 PM
29B METALS TRUE TOTAL BARIUM				LDNR 29-B		Analyst: STS
True Total Barium	177	47.5		mg/Kg-dry	1	5/24/2017 4:30:10 PM
PERCENT MOISTURE				LDNR 29-B		Analyst: GXW
Percent Moisture	22.0	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/15/2017 3:50:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-005 **Matrix:** SOLID
Client Sample ID GC-19 22-24

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	1.83	0.10		mmhos/cm	1	5/25/2017 4:00:00 PM
PERCENT MOISTURE				LDNR 29-B		Analyst: GXW
Percent Moisture	15.3	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/15/2017 4:00:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-006 **Matrix:** SOLID
Client Sample ID GC-19 26-28

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B	Analyst: MMT	
Electrical Conductivity	1.47	0.10		mmhos/cm	1	5/25/2017 4:00:00 PM
PERCENT MOISTURE				LDNR 29-B	Analyst: GXW	
Percent Moisture	18.2	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded
M	Matrix Interference	ND Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL Sample detection limit
U	Analyte not detected	W Sample container temperature is out of limit as specified at testcode



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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/15/2017 4:15:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-007 **Matrix:** SOLID
Client Sample ID GC- 18 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	10.0	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	1.19	0.10		mmhos/cm	1	5/25/2017 4:00:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	1.77	0.10		%	1	5/26/2017 3:09:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	3.02	0.10			1	5/30/2017
Soluble Calcium	5.51	1.00		meq/L	1	5/30/2017
Soluble Magnesium	2.20	1.00		meq/L	1	5/30/2017
Soluble Sodium	5.92	1.00		meq/L	1	5/30/2017
TPH-D/O IN SOIL BY SW8015						
TPH DRO/ORO IN SOIL BY SW8015						
TPH (Diesel Range)	12,600	5,000		mg/Kg	100	5/23/2017 2:59:00 PM
TPH (Oil Range)	1,630	250		mg/Kg	5	5/23/2017 6:02:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%Rec	5	5/23/2017 6:02:00 PM
NOTES:						
SD - Surrogate diluted out due to dilution.						
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	0.500	0.106		mg/Kg-dry	1	5/25/2017 10:17:11 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	2.91	2.50		mg/L	10	5/30/2017 5:10:30 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/15/2017 4:15:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-007 **Matrix:** SOLID
Client Sample ID GC- 18 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS					SW6010B	SW3050B
METALS IN SOIL OR SLUDGE BY ICP						Analyst: STS
Arsenic	5.98	1.98		mg/Kg-dry	1	5/24/2017 6:39:17 PM
Barium	3,540	9.91		mg/Kg-dry	10	5/24/2017 7:52:32 PM
Cadmium	< 0.495	0.495		mg/Kg-dry	1	5/24/2017 6:39:17 PM
Chromium	17.3	0.991		mg/Kg-dry	1	5/24/2017 6:39:17 PM
Lead	37.3	0.991		mg/Kg-dry	1	5/24/2017 6:39:17 PM
Selenium	< 3.96	3.96		mg/Kg-dry	1	5/24/2017 6:39:17 PM
Strontium	223	9.91		mg/Kg-dry	10	5/24/2017 7:52:32 PM
Zinc	44.7	0.991		mg/Kg-dry	1	5/24/2017 6:39:17 PM
29B METALS					LDNR 29-B	Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	23,000	47.3		mg/Kg-dry	1	5/24/2017 4:33:36 PM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	20.8	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/15/2017 4:20:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-008 **Matrix:** SOLID
Client Sample ID GC-18 4-6

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	19.0	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	0.92	0.10		mmhos/cm	1	5/25/2017 4:00:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	7.67	0.10		%	1	5/26/2017 3:09:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	10.2	0.10			1	5/30/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Sodium	7.73	1.00		meq/L	1	5/30/2017
TPH-D/O IN SOIL BY SW8015						
TPH DRO/ORO IN SOIL BY SW8015						
TPH (Diesel Range)	1,590	250		mg/Kg	5	5/23/2017 4:06:00 PM
TPH (Oil Range)	1,630	250		mg/Kg	5	5/23/2017 4:06:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%Rec	5	5/23/2017 4:06:00 PM
NOTES:						
SD - Surrogate diluted out due to dilution.						
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.107	0.107		mg/Kg-dry	1	5/25/2017 10:24:48 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	< 1.25	1.25		mg/L	5	5/30/2017 5:24:14 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/15/2017 4:20:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-008 **Matrix:** SOLID
Client Sample ID GC-18 4-6

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS					SW6010B	SW3050B
METALS IN SOIL OR SLUDGE BY ICP						Analyst: STS
Arsenic	9.48	1.98		mg/Kg-dry	1	5/24/2017 6:42:25 PM
Barium	1,380	9.91		mg/Kg-dry	10	5/24/2017 7:55:56 PM
Cadmium	< 0.496	0.496		mg/Kg-dry	1	5/24/2017 6:42:25 PM
Chromium	12.7	0.991		mg/Kg-dry	1	5/24/2017 6:42:25 PM
Lead	14.0	0.991		mg/Kg-dry	1	5/24/2017 6:42:25 PM
Selenium	< 3.96	3.96		mg/Kg-dry	1	5/24/2017 6:42:25 PM
Strontium	136	9.91		mg/Kg-dry	10	5/24/2017 7:55:56 PM
Zinc	51.7	0.991		mg/Kg-dry	1	5/24/2017 6:42:25 PM
29B METALS					LDNR 29-B	Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	3,590	46.5		mg/Kg-dry	1	5/24/2017 4:36:59 PM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	23.0	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-009
Client Sample ID GC-18 8-10

Collection Date: 5/15/2017 4:25:00 PM

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	13.7	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	0.86	0.10		mmhos/cm	1	5/25/2017 4:00:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	52.8	0.10	*	%	1	5/26/2017 3:09:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	18.8	0.10	*		1	5/30/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Sodium	9.26	1.00		meq/L	1	5/30/2017
TPH-D/O IN SOIL BY SW8015						
TPH DRO/ORO IN SOIL BY SW8015						
TPH (Diesel Range)	< 10.0	10.0		mg/Kg	1	5/23/2017 4:22:00 PM
TPH (Oil Range)	10.4	10.0		mg/Kg	1	5/23/2017 4:22:00 PM
Surr: 4-Terphenyl-d14	83.9	33 - 152		%Rec	1	5/23/2017 4:22:00 PM
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.108	0.108		mg/Kg-dry	1	5/25/2017 10:27:08 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	< 2.50	2.50		mg/L	10	5/30/2017 5:37:58 PM
29B METALS						
METALS IN SOIL OR SLUDGE BY ICP						

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-009
Client Sample ID GC-18 8-10

Collection Date: 5/15/2017 4:25:00 PM

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS					SW6010B	SW3050B
METALS IN SOIL OR SLUDGE BY ICP						Analyst: STS
Arsenic	12.1	1.98	*	mg/Kg-dry	1	5/24/2017 6:46:05 PM
Barium	277	0.991		mg/Kg-dry	1	5/24/2017 6:46:05 PM
Cadmium	< 0.495	0.495		mg/Kg-dry	1	5/24/2017 6:46:05 PM
Chromium	11.7	0.991		mg/Kg-dry	1	5/24/2017 6:46:05 PM
Lead	9.34	0.991		mg/Kg-dry	1	5/24/2017 6:46:05 PM
Selenium	< 3.96	3.96		mg/Kg-dry	1	5/24/2017 6:46:05 PM
Strontium	54.2	0.991		mg/Kg-dry	1	5/24/2017 6:46:05 PM
Zinc	50.4	0.991		mg/Kg-dry	1	5/24/2017 6:46:05 PM
29B METALS					LDNR 29-B	Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	329	48.7		mg/Kg-dry	1	5/24/2017 4:40:23 PM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	24.6	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-010
Client Sample ID GC-18 16-18

Collection Date: 5/16/2017 8:30:00 AM

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B	Analyst: MMT	
Electrical Conductivity	0.74	0.10		mmhos/cm	1	5/25/2017 4:00:00 PM
29B METALS MERCURY IN SOIL OR SLUDGE				29B/SW7471A SW7471A	Analyst: MRM	
Mercury	< 0.105	0.105		mg/Kg-dry	1	5/25/2017 10:29:28 AM
29B METALS METALS IN SOIL OR SLUDGE BY ICP				SW6010B SW3050B	Analyst: STS	
Arsenic	3.84	1.98		mg/Kg-dry	1	5/24/2017 6:49:43 PM
Barium	123	0.992		mg/Kg-dry	1	5/24/2017 6:49:43 PM
Cadmium	< 0.496	0.496		mg/Kg-dry	1	5/24/2017 6:49:43 PM
Chromium	18.6	0.992		mg/Kg-dry	1	5/24/2017 6:49:43 PM
Lead	8.70	0.992		mg/Kg-dry	1	5/24/2017 6:49:43 PM
Selenium	< 3.97	3.97		mg/Kg-dry	1	5/24/2017 6:49:43 PM
Strontium	34.5	0.992		mg/Kg-dry	1	5/24/2017 6:49:43 PM
Zinc	39.8	0.992		mg/Kg-dry	1	5/24/2017 6:49:43 PM
29B METALS TRUE TOTAL BARIUM				LDNR 29-B	Analyst: STS	
True Total Barium	160	49.8		mg/Kg-dry	1	5/24/2017 4:43:45 PM
PERCENT MOISTURE				LDNR 29-B	Analyst: GXW	
Percent Moisture	19.0	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/16/2017 8:50:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-011 **Matrix:** SOLID
Client Sample ID GC-18 26-28

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	1.73	0.10		mmhos/cm	1	5/25/2017 4:00:00 PM
PERCENT MOISTURE				LDNR 29-B		Analyst: GXW
Percent Moisture	15.9	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded
M	Matrix Interference	ND Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL Sample detection limit
U	Analyte not detected	W Sample container temperature is out of limit as specified at testcode



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

Analytical Report

(consolidated)

WO#: **17050879**

Date Reported: **5/31/2017**

CLIENT: ICON Environmental Services **Collection Date:** 5/16/2017 9:00:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-012 **Matrix:** SOLID
Client Sample ID GC-18 30-32

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	0.71	0.10		mmhos/cm	1	5/25/2017 4:00:00 PM
PERCENT MOISTURE				LDNR 29-B		Analyst: GXW
Percent Moisture	15.6	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/17/2017 9:20:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-013 **Matrix:** SOLID
Client Sample ID GC-20 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	29.0	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	92.8	0.10	*	mmhos/cm	1	5/25/2017 4:10:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	100	0.10	*	%	1	5/26/2017 3:09:00 PM
HEM, OIL & GREASE						
HEM, Oil & Grease	12.3	0.05	*	% dry wt	1	5/26/2017 7:59:00 AM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	132	0.10	*		1	5/30/2017
Soluble Calcium	111	1.00		meq/L	1	5/30/2017
Soluble Magnesium	14.9	1.00		meq/L	1	5/30/2017
Soluble Sodium	1,050	1.00		meq/L	1	5/30/2017
TPH-D/O IN SOIL BY SW8015						
TPH DRO/ORO IN SOIL BY SW8015						
TPH (Diesel Range)	65,700	5,000		mg/Kg	100	5/23/2017 4:39:00 PM
TPH (Oil Range)	35,100	5,000		mg/Kg	100	5/23/2017 4:39:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%Rec	100	5/23/2017 4:39:00 PM
NOTES:						
SD - Surrogate diluted out due to dilution.						
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	0.360	0.105		mg/Kg-dry	1	5/25/2017 10:31:48 AM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/17/2017 9:20:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-013 **Matrix:** SOLID
Client Sample ID GC-20 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS IN LEACHATE BY IC				SW9056A	LDNR 29-B	Analyst: SGP
Chloride	5,050	125		mg/L	500	5/31/2017 10:21:20 AM
29B METALS METALS IN SOIL OR SLUDGE BY ICP				SW6010B	SW3050B	Analyst: STS
Arsenic	44.8	1.99	*	mg/Kg-dry	1	5/25/2017 7:49:20 PM
Barium	6,130	9.97		mg/Kg-dry	10	5/25/2017 7:53:04 PM
Cadmium	2.15	0.499		mg/Kg-dry	1	5/25/2017 7:49:20 PM
Chromium	103	0.997		mg/Kg-dry	1	5/25/2017 7:49:20 PM
Lead	954	9.97	*	mg/Kg-dry	10	5/25/2017 7:53:04 PM
Selenium	< 3.99	3.99		mg/Kg-dry	1	5/25/2017 7:49:20 PM
Strontium	631	9.97		mg/Kg-dry	10	5/25/2017 7:53:04 PM
Zinc	631	9.97	*	mg/Kg-dry	10	5/25/2017 7:53:04 PM
29B METALS TRUE TOTAL BARIUM				LDNR 29-B		Analyst: STS
True Total Barium	169,000	46.5	*	mg/Kg-dry	1	5/25/2017 6:38:33 PM
PERCENT MOISTURE				LDNR 29-B		Analyst: GXW
Percent Moisture	39.1	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/17/2017 9:25:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-014 **Matrix:** SOLID
Client Sample ID GC-20 4-6

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	17.8	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	23.7	0.10	*	mmhos/cm	1	5/25/2017 4:00:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	75.5	0.10	*	%	1	5/26/2017 3:09:00 PM
HEM, OIL & GREASE						
HEM, Oil & Grease	2.91	0.05	*	% dry wt	1	5/26/2017 7:59:00 AM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	116	0.10	*		1	5/30/2017
Soluble Calcium	6.75	1.00		meq/L	1	5/30/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Sodium	218	1.00		meq/L	1	5/30/2017
TPH-D/O IN SOIL BY SW8015						
TPH DRO/ORO IN SOIL BY SW8015						
TPH (Diesel Range)	9,700	1,250		mg/Kg	25	5/25/2017 10:39:00 AM
TPH (Oil Range)	6,450	1,250		mg/Kg	25	5/25/2017 10:39:00 AM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%Rec	25	5/25/2017 10:39:00 AM
NOTES:						
SD - Surrogate diluted out due to dilution.						
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.104	0.104		mg/Kg-dry	1	5/25/2017 10:34:27 AM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/17/2017 9:25:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-014 **Matrix:** SOLID
Client Sample ID GC-20 4-6

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
INORGANIC ANIONS IN LEACHATE BY IC				SW9056A	Analyst: SGP	
Chloride	1,670	25.0		mg/L	100	5/30/2017 5:51:42 PM
29B METALS METALS IN SOIL OR SLUDGE BY ICP				SW6010B	SW3050B	Analyst: STS
Arsenic	11.9	1.98	*	mg/Kg-dry	1	5/24/2017 6:53:14 PM
Barium	339	0.992		mg/Kg-dry	1	5/24/2017 6:53:14 PM
Cadmium	< 0.496	0.496		mg/Kg-dry	1	5/24/2017 6:53:14 PM
Chromium	14.4	0.992		mg/Kg-dry	1	5/24/2017 6:53:14 PM
Lead	12.7	0.992		mg/Kg-dry	1	5/24/2017 6:53:14 PM
Selenium	< 3.97	3.97		mg/Kg-dry	1	5/24/2017 6:53:14 PM
Strontium	36.4	0.992		mg/Kg-dry	1	5/24/2017 6:53:14 PM
Zinc	55.2	0.992		mg/Kg-dry	1	5/24/2017 6:53:14 PM
29B METALS TRUE TOTAL BARIUM				LDNR 29-B	Analyst: STS	
True Total Barium	353	47.2		mg/Kg-dry	1	5/24/2017 4:47:07 PM
PERCENT MOISTURE				LDNR 29-B	Analyst: GXW	
Percent Moisture	19.9	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/17/2017 9:30:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-015 **Matrix:** SOLID
Client Sample ID GC-20 8-10

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	16.2	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	38.9	0.10	*	mmhos/cm	1	5/25/2017 4:00:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	87.6	0.10	*	%	1	5/26/2017 3:09:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	124	0.10	*		1	5/30/2017
Soluble Calcium	16.2	1.00		meq/L	1	5/30/2017
Soluble Magnesium	2.43	1.00		meq/L	1	5/30/2017
Soluble Sodium	378	1.00		meq/L	1	5/30/2017
TPH-D/O IN SOIL BY SW8015						
TPH DRO/ORO IN SOIL BY SW8015						
TPH (Diesel Range)	2,300	500		mg/Kg	10	5/23/2017 5:12:00 PM
TPH (Oil Range)	1,580	500		mg/Kg	10	5/23/2017 5:12:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%Rec	10	5/23/2017 5:12:00 PM
NOTES:						
SD - Surrogate diluted out due to dilution.						
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.104	0.104		mg/Kg-dry	1	5/25/2017 10:36:48 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	2,380	50.0		mg/L	200	5/30/2017 6:05:25 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-015
Client Sample ID GC-20 8-10

Collection Date: 5/17/2017 9:30:00 AM

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS					SW6010B	SW3050B
METALS IN SOIL OR SLUDGE BY ICP						Analyst: STS
Arsenic	9.44	2.00		mg/Kg-dry	1	5/24/2017 6:56:46 PM
Barium	190	1.00		mg/Kg-dry	1	5/24/2017 6:56:46 PM
Cadmium	< 0.500	0.500		mg/Kg-dry	1	5/24/2017 6:56:46 PM
Chromium	12.1	1.00		mg/Kg-dry	1	5/24/2017 6:56:46 PM
Lead	12.0	1.00		mg/Kg-dry	1	5/24/2017 6:56:46 PM
Selenium	< 4.00	4.00		mg/Kg-dry	1	5/24/2017 6:56:46 PM
Strontium	41.6	1.00		mg/Kg-dry	1	5/24/2017 6:56:46 PM
Zinc	55.8	1.00		mg/Kg-dry	1	5/24/2017 6:56:46 PM
29B METALS					LDNR 29-B	Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	232	47.2		mg/Kg-dry	1	5/24/2017 4:57:44 PM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	22.7	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/17/2017 9:40:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-016 **Matrix:** SOLID
Client Sample ID GC-20 12-14

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B	Analyst: MMT	
Electrical Conductivity	33.2	0.10	*	mmhos/cm	1	5/25/2017 4:00:00 PM
TPH-D/O IN SOIL BY SW8015				SW8015B	SW3550C	Analyst: KKD
TPH DRO/ORO IN SOIL BY SW8015						
TPH (Diesel Range)	3,040	250		mg/Kg	5	5/23/2017 5:29:00 PM
TPH (Oil Range)	1,820	250		mg/Kg	5	5/23/2017 5:29:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%Rec	5	5/23/2017 5:29:00 PM
NOTES:						
SD - Surrogate diluted out due to dilution.						
29B METALS				29B/SW7471A	SW7471A	Analyst: MRM
MERCURY IN SOIL OR SLUDGE						
Mercury	0.137	0.0999		mg/Kg-dry	1	5/25/2017 10:39:07 AM
INORGANIC ANIONS IN LEACHATE BY IC				SW9056A	Analyst: SGP	
Chloride	2,340	50.0		mg/L	200	5/30/2017 6:19:10 PM
29B METALS				SW6010B	SW3050B	Analyst: STS
METALS IN SOIL OR SLUDGE BY ICP						
Arsenic	7.11	1.98		mg/Kg-dry	1	5/24/2017 7:00:35 PM
Barium	153	0.992		mg/Kg-dry	1	5/24/2017 7:00:35 PM
Cadmium	< 0.496	0.496		mg/Kg-dry	1	5/24/2017 7:00:35 PM
Chromium	9.52	0.992		mg/Kg-dry	1	5/24/2017 7:00:35 PM
Lead	8.64	0.992		mg/Kg-dry	1	5/24/2017 7:00:35 PM
Selenium	< 3.97	3.97		mg/Kg-dry	1	5/24/2017 7:00:35 PM
Strontium	55.3	0.992		mg/Kg-dry	1	5/24/2017 7:00:35 PM
Zinc	50.4	0.992		mg/Kg-dry	1	5/24/2017 7:00:35 PM
29B METALS				LDNR 29-B	Analyst: STS	
TRUE TOTAL BARIUM						
True Total Barium	193	46.3		mg/Kg-dry	1	5/24/2017 5:01:06 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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

Analytical Report

(consolidated)

WO#: **17050879**

Date Reported: **5/31/2017**

CLIENT: ICON Environmental Services **Collection Date:** 5/17/2017 9:40:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-016 **Matrix:** SOLID
Client Sample ID GC-20 12-14

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
PERCENT MOISTURE		LDNR 29-B			Analyst: GXW	
Percent Moisture	21.6	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/17/2017 10:50:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-017 **Matrix:** SOLID
Client Sample ID GC-20 20-22

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B	Analyst: MMT	
Electrical Conductivity	7.39	0.10	*	mmhos/cm	1	5/25/2017 4:00:00 PM
29B METALS MERCURY IN SOIL OR SLUDGE				29B/SW7471A SW7471A	Analyst: MRM	
Mercury	< 0.102	0.102		mg/Kg-dry	1	5/25/2017 10:41:47 AM
INORGANIC ANIONS IN LEACHATE BY IC				SW9056A	Analyst: SGP	
Chloride	406	12.5		mg/L	50	5/30/2017 6:32:54 PM
29B METALS METALS IN SOIL OR SLUDGE BY ICP				SW6010B SW3050B	Analyst: STS	
Arsenic	6.13	1.99		mg/Kg-dry	1	5/24/2017 7:11:30 PM
Barium	116	0.997		mg/Kg-dry	1	5/24/2017 7:11:30 PM
Cadmium	< 0.499	0.499		mg/Kg-dry	1	5/24/2017 7:11:30 PM
Chromium	15.3	0.997		mg/Kg-dry	1	5/24/2017 7:11:30 PM
Lead	7.26	0.997		mg/Kg-dry	1	5/24/2017 7:11:30 PM
Selenium	< 3.99	3.99		mg/Kg-dry	1	5/24/2017 7:11:30 PM
Strontium	33.4	0.997		mg/Kg-dry	1	5/24/2017 7:11:30 PM
Zinc	38.7	0.997		mg/Kg-dry	1	5/24/2017 7:11:30 PM
29B METALS TRUE TOTAL BARIUM				LDNR 29-B	Analyst: STS	
True Total Barium	120	46.2		mg/Kg-dry	1	5/24/2017 5:04:29 PM
PERCENT MOISTURE				LDNR 29-B	Analyst: GXW	
Percent Moisture	18.9	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/17/2017 11:10:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-018 **Matrix:** SOLID
Client Sample ID GC-20 28-30

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	20.6	0.10	*	mmhos/cm	1	5/25/2017 4:00:00 PM
PERCENT MOISTURE				LDNR 29-B		Analyst: GXW
Percent Moisture	21.4	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 10:00:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-019 **Matrix:** SOLID
Client Sample ID GC-21 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	17.6	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	8.19	0.10	*	mmhos/cm	1	5/25/2017 4:00:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	63.9	0.10	*	%	1	5/26/2017 3:09:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	75.3	0.10	*		1	5/30/2017
Soluble Calcium	1.36	1.00		meq/L	1	5/30/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Sodium	74.7	1.00		meq/L	1	5/30/2017
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.106	0.106		mg/Kg-dry	1	5/25/2017 10:44:07 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	542	12.5		mg/L	50	5/30/2017 6:46:38 PM
29B METALS						
METALS IN SOIL OR SLUDGE BY ICP						
Arsenic	8.55	1.99		mg/Kg-dry	1	5/24/2017 7:15:04 PM
Barium	182	0.994		mg/Kg-dry	1	5/24/2017 7:15:04 PM
Cadmium	1.30	0.497		mg/Kg-dry	1	5/24/2017 7:15:04 PM
Chromium	15.0	0.994		mg/Kg-dry	1	5/24/2017 7:15:04 PM
Lead	11.3	0.994		mg/Kg-dry	1	5/24/2017 7:15:04 PM
Selenium	< 3.97	3.97		mg/Kg-dry	1	5/24/2017 7:15:04 PM
Strontium	39.6	0.994		mg/Kg-dry	1	5/24/2017 7:15:04 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



Element Materials Technology Lafayette
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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 10:00:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-019 **Matrix:** SOLID
Client Sample ID GC-21 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS					SW6010B	SW3050B Analyst: STS
METALS IN SOIL OR SLUDGE BY ICP						
Zinc	54.2	0.994		mg/Kg-dry	1	5/24/2017 7:15:04 PM
29B METALS					LDNR 29-B	Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	190	49.7		mg/Kg-dry	1	5/24/2017 5:07:51 PM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	20.9	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 10:05:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-020 **Matrix:** SOLID
Client Sample ID GC-21 4-6

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	24.8	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	1.95	0.10		mmhos/cm	1	5/25/2017 4:00:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	44.7	0.10	*	%	1	5/26/2017 3:09:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	35.9	0.10	*		1	5/30/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Sodium	16.6	1.00		meq/L	1	5/30/2017
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.0975	0.0975		mg/Kg-dry	1	5/25/2017 10:46:28 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	120	2.50		mg/L	10	5/30/2017 7:27:49 PM
29B METALS						
METALS IN SOIL OR SLUDGE BY ICP						
Arsenic	10.2	1.99	*	mg/Kg-dry	1	5/24/2017 7:18:38 PM
Barium	251	0.997		mg/Kg-dry	1	5/24/2017 7:18:38 PM
Cadmium	< 0.499	0.499		mg/Kg-dry	1	5/24/2017 7:18:38 PM
Chromium	15.4	0.997		mg/Kg-dry	1	5/24/2017 7:18:38 PM
Lead	14.2	0.997		mg/Kg-dry	1	5/24/2017 7:18:38 PM
Selenium	< 3.99	3.99		mg/Kg-dry	1	5/24/2017 7:18:38 PM
Strontium	35.2	0.997		mg/Kg-dry	1	5/24/2017 7:18:38 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 10:05:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-020 **Matrix:** SOLID
Client Sample ID GC-21 4-6

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS					SW6010B	SW3050B Analyst: STS
METALS IN SOIL OR SLUDGE BY ICP						
Zinc	44.4	0.997		mg/Kg-dry	1	5/24/2017 7:18:38 PM
29B METALS					LDNR 29-B	Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	259	47.7		mg/Kg-dry	1	5/24/2017 5:11:12 PM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	17.9	1.00		wt%	1	5/19/2017 3:40:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 10:20:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-021 **Matrix:** SOLID
Client Sample ID GC-21 10-12

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	16.2	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	13.0	0.10	*	mmhos/cm	1	5/25/2017 4:10:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	68.0	0.10	*	%	1	5/26/2017 3:09:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	103	0.10	*		1	5/30/2017
Soluble Calcium	1.73	1.00		meq/L	1	5/30/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Sodium	115	1.00		meq/L	1	5/30/2017
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.104	0.104		mg/Kg-dry	1	5/25/2017 10:53:47 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	760	12.5		mg/L	50	5/30/2017 7:41:34 PM
29B METALS						
METALS IN SOIL OR SLUDGE BY ICP						
Arsenic	9.43	1.99		mg/Kg-dry	1	5/24/2017 7:22:27 PM
Barium	114	0.997		mg/Kg-dry	1	5/24/2017 7:22:27 PM
Cadmium	< 0.498	0.498		mg/Kg-dry	1	5/24/2017 7:22:27 PM
Chromium	10.2	0.997		mg/Kg-dry	1	5/24/2017 7:22:27 PM
Lead	10.5	0.997		mg/Kg-dry	1	5/24/2017 7:22:27 PM
Selenium	< 3.99	3.99		mg/Kg-dry	1	5/24/2017 7:22:27 PM
Strontium	48.5	0.997		mg/Kg-dry	1	5/24/2017 7:22:27 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 10:20:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-021 **Matrix:** SOLID
Client Sample ID GC-21 10-12

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS					SW6010B	SW3050B Analyst: STS
METALS IN SOIL OR SLUDGE BY ICP						
Zinc	57.0	0.997		mg/Kg-dry	1	5/24/2017 7:22:27 PM
29B METALS					LDNR 29-B	Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	157	49.9		mg/Kg-dry	1	5/24/2017 5:14:35 PM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	24.6	1.00		wt%	1	5/19/2017 4:50:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 10:30:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-022 **Matrix:** SOLID
Client Sample ID GC-21 14-16

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	10.8	0.10	*	mmhos/cm	1	5/25/2017 4:10:00 PM
29B METALS MERCURY IN SOIL OR SLUDGE				29B/SW7471A SW7471A		Analyst: MRM
Mercury	< 0.104	0.104		mg/Kg-dry	1	5/25/2017 10:56:07 AM
INORGANIC ANIONS IN LEACHATE BY IC				SW9056A LDNR 29-B		Analyst: SGP
Chloride	492	12.5		mg/L	50	5/31/2017 10:35:04 AM
29B METALS METALS IN SOIL OR SLUDGE BY ICP				SW6010B SW3050B		Analyst: STS
Arsenic	9.60	1.99		mg/Kg-dry	1	5/24/2017 7:26:08 PM
Barium	85.1	0.996		mg/Kg-dry	1	5/24/2017 7:26:08 PM
Cadmium	< 0.498	0.498		mg/Kg-dry	1	5/24/2017 7:26:08 PM
Chromium	11.2	0.996		mg/Kg-dry	1	5/24/2017 7:26:08 PM
Lead	9.06	0.996		mg/Kg-dry	1	5/24/2017 7:26:08 PM
Selenium	< 3.98	3.98		mg/Kg-dry	1	5/24/2017 7:26:08 PM
Strontium	42.6	0.996		mg/Kg-dry	1	5/24/2017 7:26:08 PM
Zinc	47.1	0.996		mg/Kg-dry	1	5/24/2017 7:26:08 PM
29B METALS TRUE TOTAL BARIUM				LDNR 29-B		Analyst: STS
True Total Barium	118	46.4		mg/Kg-dry	1	5/24/2017 5:17:56 PM
PERCENT MOISTURE				LDNR 29-B		Analyst: GXW
Percent Moisture	23.7	1.00		wt%	1	5/19/2017 4:50:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

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WO#: **17050879**

Date Reported: **5/31/2017**

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 10:55:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-023 **Matrix:** SOLID
Client Sample ID GC-21 24-26

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B	Analyst: MMT	
Electrical Conductivity	11.4	0.10	*	mmhos/cm	1	5/25/2017 4:10:00 PM
PERCENT MOISTURE				LDNR 29-B	Analyst: GXW	
Percent Moisture	19.9	1.00		wt%	1	5/19/2017 4:50:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-024
Client Sample ID GC-22 0-2

Collection Date: 5/18/2017 3:45:00 PM

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	24.1	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	1.46	0.10		mmhos/cm	1	5/25/2017 4:10:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	10.7	0.10		%	1	5/26/2017 3:09:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	15.7	0.10	*		1	5/30/2017
Soluble Calcium	1.02	1.00		meq/L	1	5/30/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Sodium	12.9	1.00		meq/L	1	5/30/2017
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	0.110	0.107		mg/Kg-dry	1	5/25/2017 10:58:26 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	38.2	2.50		mg/L	10	5/30/2017 7:55:17 PM
29B METALS						
METALS IN SOIL OR SLUDGE BY ICP						
Arsenic	7.99	1.99		mg/Kg-dry	1	5/24/2017 7:29:56 PM
Barium	1,600	0.995		mg/Kg-dry	1	5/24/2017 7:29:56 PM
Cadmium	< 0.498	0.498		mg/Kg-dry	1	5/24/2017 7:29:56 PM
Chromium	15.6	0.995		mg/Kg-dry	1	5/24/2017 7:29:56 PM
Lead	24.2	0.995		mg/Kg-dry	1	5/24/2017 7:29:56 PM
Selenium	< 3.98	3.98		mg/Kg-dry	1	5/24/2017 7:29:56 PM
Strontium	83.2	0.995		mg/Kg-dry	1	5/24/2017 7:29:56 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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Analytical Report

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WO#: **17050879**

Date Reported: **5/31/2017**

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 3:45:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-024 **Matrix:** SOLID
Client Sample ID GC-22 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS					SW6010B	SW3050B Analyst: STS
METALS IN SOIL OR SLUDGE BY ICP						
Zinc	55.3	0.995		mg/Kg-dry	1	5/24/2017 7:29:56 PM
29B METALS					LDNR 29-B	Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	3,500	46.2		mg/Kg-dry	1	5/24/2017 5:21:20 PM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	14.4	1.00		wt%	1	5/19/2017 4:50:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 3:50:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-025 **Matrix:** SOLID
Client Sample ID GC-22 4-7

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B SALTS						
CATION EXCHANGE CAPACITY						
Cation Exchange Capacity	21.0	0.100		meq/100g	1	5/26/2017 3:09:00 PM
ELECTRICAL CONDUCTIVITY @ SATURATION						
Electrical Conductivity	3.28	0.10		mmhos/cm	1	5/25/2017 4:10:00 PM
29B SALTS						
EXCHANGEABLE SODIUM PERCENTAGE						
Exchangeable Sodium %	39.0	0.10	*	%	1	5/26/2017 3:09:00 PM
29B SALTS						
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	43.8	0.10	*		1	5/30/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/30/2017
Soluble Sodium	32.9	1.00		meq/L	1	5/30/2017
TPH-D/O IN SOIL BY SW8015						
TPH DRO/ORO IN SOIL BY SW8015						
TPH (Diesel Range)	14.7	10.0		mg/Kg	1	5/23/2017 5:46:00 PM
TPH (Oil Range)	15.3	10.0		mg/Kg	1	5/23/2017 5:46:00 PM
Surr: 4-Terphenyl-d14	41.7	33 - 152		%Rec	1	5/23/2017 5:46:00 PM
29B METALS						
MERCURY IN SOIL OR SLUDGE						
Mercury	< 0.106	0.106		mg/Kg-dry	1	5/25/2017 11:01:05 AM
INORGANIC ANIONS IN LEACHATE BY IC						
Chloride	253	5.00		mg/L	20	5/30/2017 8:09:01 PM
29B METALS						
METALS IN SOIL OR SLUDGE BY ICP						

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

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WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-025
Client Sample ID GC-22 4-7

Collection Date: 5/18/2017 3:50:00 PM

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
29B METALS					SW6010B	SW3050B
METALS IN SOIL OR SLUDGE BY ICP						Analyst: STS
Arsenic	14.9	1.99	*	mg/Kg-dry	1	5/24/2017 7:33:34 PM
Barium	192	0.995		mg/Kg-dry	1	5/24/2017 7:33:34 PM
Cadmium	< 0.498	0.498		mg/Kg-dry	1	5/24/2017 7:33:34 PM
Chromium	13.9	0.995		mg/Kg-dry	1	5/24/2017 7:33:34 PM
Lead	12.1	0.995		mg/Kg-dry	1	5/24/2017 7:33:34 PM
Selenium	< 3.98	3.98		mg/Kg-dry	1	5/24/2017 7:33:34 PM
Strontium	59.5	0.995		mg/Kg-dry	1	5/24/2017 7:33:34 PM
Zinc	52.5	0.995		mg/Kg-dry	1	5/24/2017 7:33:34 PM
29B METALS					LDNR 29-B	Analyst: STS
TRUE TOTAL BARIUM						
True Total Barium	220	47.2		mg/Kg-dry	1	5/24/2017 5:24:45 PM
PERCENT MOISTURE					LDNR 29-B	Analyst: GXW
Percent Moisture	20.6	1.00		wt%	1	5/19/2017 4:50:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
 Website: www.element.com

Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 4:25:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-026 **Matrix:** SOLID
Client Sample ID GC-22 12-14

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B	Analyst: MMT	
Electrical Conductivity	14.7	0.10	*	mmhos/cm	1	5/25/2017 4:10:00 PM
29B METALS MERCURY IN SOIL OR SLUDGE				29B/SW7471A SW7471A	Analyst: MRM	
Mercury	< 0.105	0.105		mg/Kg-dry	1	5/25/2017 11:03:26 AM
INORGANIC ANIONS IN LEACHATE BY IC				SW9056A	Analyst: SGP	
Chloride	633	12.5		mg/L	50	5/30/2017 8:22:45 PM
29B METALS METALS IN SOIL OR SLUDGE BY ICP				SW6010B SW3050B	Analyst: STS	
Arsenic	8.41	1.99		mg/Kg-dry	1	5/24/2017 7:37:22 PM
Barium	157	0.993		mg/Kg-dry	1	5/24/2017 7:37:22 PM
Cadmium	< 0.497	0.497		mg/Kg-dry	1	5/24/2017 7:37:22 PM
Chromium	11.0	0.993		mg/Kg-dry	1	5/24/2017 7:37:22 PM
Lead	10.3	0.993		mg/Kg-dry	1	5/24/2017 7:37:22 PM
Selenium	< 3.97	3.97		mg/Kg-dry	1	5/24/2017 7:37:22 PM
Strontium	49.4	0.993		mg/Kg-dry	1	5/24/2017 7:37:22 PM
Zinc	51.5	0.993		mg/Kg-dry	1	5/24/2017 7:37:22 PM
29B METALS TRUE TOTAL BARIUM				LDNR 29-B	Analyst: STS	
True Total Barium	195	46.0		mg/Kg-dry	1	5/24/2017 5:28:08 PM
PERCENT MOISTURE				LDNR 29-B	Analyst: GXW	
Percent Moisture	25.7	1.00		wt%	1	5/19/2017 4:50:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
 Website: www.element.com

Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 4:40:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-027 **Matrix:** SOLID
Client Sample ID GC-22 18-20

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B	Analyst: MMT	
Electrical Conductivity	25.4	0.10	*	mmhos/cm	1	5/25/2017 4:10:00 PM
29B METALS MERCURY IN SOIL OR SLUDGE				29B/SW7471A SW7471A	Analyst: MRM	
Mercury	< 0.107	0.107		mg/Kg-dry	1	5/25/2017 11:13:26 AM
INORGANIC ANIONS IN LEACHATE BY IC				SW9056A	Analyst: SGP	
Chloride	1,950	25.0		mg/L	100	5/30/2017 8:36:29 PM
29B METALS METALS IN SOIL OR SLUDGE BY ICP				SW6010B SW3050B	Analyst: STS	
Arsenic	7.27	2.00		mg/Kg-dry	1	5/24/2017 7:41:15 PM
Barium	185	0.998		mg/Kg-dry	1	5/24/2017 7:41:15 PM
Cadmium	< 0.499	0.499		mg/Kg-dry	1	5/24/2017 7:41:15 PM
Chromium	11.1	0.998		mg/Kg-dry	1	5/24/2017 7:41:15 PM
Lead	9.47	0.998		mg/Kg-dry	1	5/24/2017 7:41:15 PM
Selenium	< 3.99	3.99		mg/Kg-dry	1	5/24/2017 7:41:15 PM
Strontium	60.7	0.998		mg/Kg-dry	1	5/24/2017 7:41:15 PM
Zinc	52.8	0.998		mg/Kg-dry	1	5/24/2017 7:41:15 PM
29B METALS TRUE TOTAL BARIUM				LDNR 29-B	Analyst: STS	
True Total Barium	228	47.4		mg/Kg-dry	1	5/24/2017 5:38:48 PM
PERCENT MOISTURE				LDNR 29-B	Analyst: GXW	
Percent Moisture	24.9	1.00		wt%	1	5/19/2017 4:50:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-028
Client Sample ID GC-22 26-28

Collection Date: 5/18/2017 5:00:00 PM

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	2.31	0.10		mmhos/cm	1	5/25/2017 4:10:00 PM
29B METALS MERCURY IN SOIL OR SLUDGE				29B/SW7471A SW7471A		Analyst: MRM
Mercury	< 0.0925	0.0925		mg/Kg-dry	1	5/25/2017 11:26:05 AM
29B METALS METALS IN SOIL OR SLUDGE BY ICP				SW6010B SW3050B		Analyst: STS
Arsenic	< 2.00	2.00		mg/Kg-dry	1	5/25/2017 8:03:57 PM
Barium	170	0.998		mg/Kg-dry	1	5/25/2017 8:03:57 PM
Cadmium	< 0.499	0.499		mg/Kg-dry	1	5/25/2017 8:03:57 PM
Chromium	17.7	0.998		mg/Kg-dry	1	5/25/2017 8:03:57 PM
Lead	6.98	0.998		mg/Kg-dry	1	5/25/2017 8:03:57 PM
Selenium	< 3.99	3.99		mg/Kg-dry	1	5/25/2017 8:03:57 PM
Strontium	41.7	0.998		mg/Kg-dry	1	5/25/2017 8:03:57 PM
Zinc	37.1	0.998		mg/Kg-dry	1	5/25/2017 8:03:57 PM
29B METALS TRUE TOTAL BARIUM				LDNR 29-B		Analyst: STS
True Total Barium	543	48.5		mg/Kg-dry	1	5/25/2017 6:42:02 PM
PERCENT MOISTURE				LDNR 29-B		Analyst: GXW
Percent Moisture	18.0	1.00		wt%	1	5/19/2017 4:50:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

(consolidated)

WO#: 17050879

Date Reported: 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 5:15:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-029 **Matrix:** SOLID
Client Sample ID GC-22 32-34

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B	Analyst: MMT	
Electrical Conductivity	37.9	0.10	*	mmhos/cm	1	5/25/2017 4:10:00 PM
PERCENT MOISTURE				LDNR 29-B	Analyst: GXW	
Percent Moisture	22.9	1.00		wt%	1	5/19/2017 4:50:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

(consolidated)

WO#: **17050879**

Date Reported: **5/31/2017**

CLIENT: ICON Environmental Services **Collection Date:** 5/18/2017 5:30:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050879-030 **Matrix:** SOLID
Client Sample ID GC-22 38-40

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	32.3	0.10	*	mmhos/cm	1	5/25/2017 4:10:00 PM
PERCENT MOISTURE				LDNR 29-B		Analyst: GXW
Percent Moisture	22.7	1.00		wt%	1	5/19/2017 4:50:00 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
	M	Matrix Interference	ND	Not Detected at the Reporting Limit
	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6546
 Website: www.element.com

QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23187

Sample ID: 17050861-003BMS-M	SampType: MS	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/22/2017	RunNo: 61377						
Client ID: ZZZZZ	Batch ID: 23187	TestNo: SW8015B	SW3550C	Analysis Date: 5/22/2017	SeqNo: 1511654						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	235	50.0	100.0	0	235	14.5	174				SM
Surr: 4-Terphenyl-d14	2.98		3.330		89.5	33	152				

Sample ID: 17050861-003BMSD-	SampType: MSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/22/2017	RunNo: 61377						
Client ID: ZZZZZ	Batch ID: 23187	TestNo: SW8015B	SW3550C	Analysis Date: 5/22/2017	SeqNo: 1511655						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	135	50.0	100.0	0	135	14.5	174	235.2	53.8	48.8	R
Surr: 4-Terphenyl-d14	2.37		3.330		71.0	33	152		0	40	

NOTES:
 R - MS/MSD RPD above the control limit. The method is in control according to the LCS/LCSD.

Sample ID: LCS-D23187	SampType: LCS	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/22/2017	RunNo: 61377						
Client ID: LCSS	Batch ID: 23187	TestNo: SW8015B	SW3550C	Analysis Date: 5/22/2017	SeqNo: 1511661						
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				
Surr: 4-Terphenyl-d14	2.97		3.330		89.1	33	152				

Sample ID: LCSD-D23187	SampType: LCSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/22/2017	RunNo: 61377						
Client ID: LCSS02	Batch ID: 23187	TestNo: SW8015B	SW3550C	Analysis Date: 5/22/2017	SeqNo: 1511662						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6546
 Website: www.element.com

QC SUMMARY REPORT

WO#: 17050879

31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23187

Sample ID: LCSD-D23187	SampType: LCSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/22/2017	RunNo: 61377						
Client ID: LCSS02	Batch ID: 23187	TestNo: SW8015B	SW3550C	Analysis Date: 5/22/2017	SeqNo: 1511662						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	89.1	10.0	100.0	0	89.1	63.4	109	87.27	2.07	17.2
Surr: 4-Terphenyl-d14	2.87		3.330		86.1	33	152		0	40

Sample ID: LCSD-M23187	SampType: LCSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/22/2017	RunNo: 61377						
Client ID: LCSS02	Batch ID: 23187	TestNo: SW8015B	SW3550C	Analysis Date: 5/22/2017	SeqNo: 1511663						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	83.8	10.0	100.0	0	83.8	63.9	120	73.27	13.5	16.6
Surr: 4-Terphenyl-d14	3.17		3.330		95.2	33	152		0	40

Sample ID: LCS-M23187	SampType: LCS	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/22/2017	RunNo: 61377						
Client ID: LCSS	Batch ID: 23187	TestNo: SW8015B	SW3550C	Analysis Date: 5/22/2017	SeqNo: 1511664						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	73.3	10.0	100.0	0	73.3	63.9	120			
Surr: 4-Terphenyl-d14	2.77		3.330		83.3	33	152			

Sample ID: MB-23187	SampType: MBLK	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/22/2017	RunNo: 61377						
Client ID: PBS	Batch ID: 23187	TestNo: SW8015B	SW3550C	Analysis Date: 5/22/2017	SeqNo: 1511665						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	< 10.0	10.0								
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Qualifiers:

* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6546
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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23187

Sample ID: MB-23187	SampType: MBLK	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/22/2017	RunNo: 61377						
Client ID: PBS	Batch ID: 23187	TestNo: SW8015B	SW3550C	Analysis Date: 5/22/2017	SeqNo: 1511665						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	< 10.0	10.0									
Surr: 4-Terphenyl-d14	3.04		3.330		91.4	33	152				

Sample ID: 17050879-007BMS-D	SampType: MS	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/22/2017	RunNo: 61377						
Client ID: GC- 18 0-2	Batch ID: 23187	TestNo: SW8015B	SW3550C	Analysis Date: 5/23/2017	SeqNo: 1512901						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	2,880	1,000	100.0	12,590	-9,720	23.4	123				SD
Surr: 4-Terphenyl-d14	0		3.330		0	33	152				SD

NOTES:
 SD - Matrix Spike and surrogate recovery outside of recovery limits due to dilution. The method is in control as indicated by the LCS/LCSD.

Sample ID: 17050879-007BMSD-	SampType: MSD	TestCode: 8015_DO_S	Units: mg/Kg	Prep Date: 5/22/2017	RunNo: 61377						
Client ID: GC- 18 0-2	Batch ID: 23187	TestNo: SW8015B	SW3550C	Analysis Date: 5/23/2017	SeqNo: 1512902						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	2,160	1,000	100.0	12,590	-10,400	23.4	123	2,875	28.6	35.6	SD
Surr: 4-Terphenyl-d14	0		3.330		0	33	152		0	40	SD

NOTES:
 SD - Matrix Spike and surrogate recovery outside of recovery limits due to dilution. The method is in control as indicated by the LCS/LCSD.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded	M Matrix Interference
	ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	RL Reporting Limit
	S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
	W Sample container temperature is out of limit as specified at testcode		



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23218

Sample ID: 17050879-001AMS	SampType: MS	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61451						
Client ID: GC-19 0-2	Batch ID: 23218	TestNo: 29B/SW7471 SW7471A		Analysis Date: 5/25/2017	SeqNo: 1513562						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.871	0.107	0.8904	0	97.9	75	125				
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Sample ID: 17050879-001AMSD	SampType: MSD	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61451						
Client ID: GC-19 0-2	Batch ID: 23218	TestNo: 29B/SW7471 SW7471A		Analysis Date: 5/25/2017	SeqNo: 1513563						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.865	0.105	0.8733	0	99.1	75	125	0.8713	0.681	20	
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Sample ID: MB-23218	SampType: MBLK	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61451						
Client ID: PBS	Batch ID: 23218	TestNo: 29B/SW7471 SW7471A		Analysis Date: 5/25/2017	SeqNo: 1513636						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	< 0.100	0.100									
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Sample ID: LCS-23218	SampType: LCS	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61451						
Client ID: LCSS	Batch ID: 23218	TestNo: 29B/SW7471 SW7471A		Analysis Date: 5/25/2017	SeqNo: 1513637						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.859	0.100	0.8330	0	103	80	120				
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Qualifiers:

* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050879

31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23218

Sample ID: LCSD-23218	SampType: LCSD	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61451						
Client ID: LCSS02	Batch ID: 23218	TestNo: 29B/SW7471 SW7471A	Analysis Date: 5/25/2017	SeqNo: 1513638							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.859	0.100	0.8330	0	103	80	120	0.8589	0.0394	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
W	Sample container temperature is out of limit as specified at testcode				



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6546
 Website: www.element.com

QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23232

Sample ID: MB-23232	SampType: MBLK	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61422						
Client ID: PBS	Batch ID: 23232	TestNo: LDNR 29-B		Analysis Date: 5/24/2017	SeqNo: 1513143						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

True Total Barium < 50.0 50.0

Sample ID: LCS-23232	SampType: LCS	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61422						
Client ID: LCSS	Batch ID: 23232	TestNo: LDNR 29-B		Analysis Date: 5/24/2017	SeqNo: 1513144						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

True Total Barium 5,140 50.0 5,000 0 103 75 125

Sample ID: LCSD-23232	SampType: LCSD	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61422						
Client ID: LCSS02	Batch ID: 23232	TestNo: LDNR 29-B		Analysis Date: 5/24/2017	SeqNo: 1513145						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

True Total Barium 5,210 50.0 5,000 0 104 75 125 5,140 1.35 20

Sample ID: 17050879-001AMS	SampType: MS	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61422						
Client ID: GC-19 0-2	Batch ID: 23232	TestNo: LDNR 29-B		Analysis Date: 5/24/2017	SeqNo: 1513149						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

True Total Barium 5,510 48.7 4,873 483.9 103 75 125

Qualifiers:

* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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

QC SUMMARY REPORT

WO#: 17050879

31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23232

Sample ID: 17050879-001AMSD	SampType: MSD	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61422						
Client ID: GC-19 0-2	Batch ID: 23232	TestNo: LDNR 29-B	Analysis Date: 5/24/2017	SeqNo: 1513150							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium	5,360	47.6	4,762	483.9	102	75	125	5,512	2.84	20	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
	W	Sample container temperature is out of limit as specified at testcode				



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QC SUMMARY REPORT

WO#: 17050879

31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23237

Sample ID: MB-23237	SampType: MBLK	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61422						
Client ID: PBS	Batch ID: 23237	TestNo: SW6010B	SW3050B	Analysis Date: 5/24/2017	SeqNo: 1513177						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	< 2.00	2.00									
Barium	< 1.00	1.00									
Cadmium	< 0.500	0.500									
Chromium	< 1.00	1.00									
Lead	< 1.00	1.00									
Selenium	< 4.00	4.00									
Strontium	< 1.00	1.00									
Zinc	< 1.00	1.00									

Sample ID: LCS-23237	SampType: LCS	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61422						
Client ID: LCSS	Batch ID: 23237	TestNo: SW6010B	SW3050B	Analysis Date: 5/24/2017	SeqNo: 1513178						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	51.7	2.00	50.00	0	103	80	120				
Barium	51.4	1.00	50.00	0	103	80	120				
Cadmium	49.8	0.500	50.00	0	99.5	80	120				
Chromium	51.8	1.00	50.00	0	104	80	120				
Lead	52.0	1.00	50.00	0	104	80	120				
Selenium	51.6	4.00	50.00	0	103	80	120				
Strontium	52.6	1.00	50.00	0	105	80	120				
Zinc	50.2	1.00	50.00	0	100	80	120				

Qualifiers:	* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded	M Matrix Interference
	ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	RL Reporting Limit
	S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
	W Sample container temperature is out of limit as specified at testcode		



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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23237

Sample ID: LCSD-23237	SampType: LCSD	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61422						
Client ID: LCSS02	Batch ID: 23237	TestNo: SW6010B	SW3050B	Analysis Date: 5/24/2017	SeqNo: 1513179						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	50.6	2.00	50.00	0	101	80	120	51.72	2.17	20	
Barium	52.4	1.00	50.00	0	105	80	120	51.41	1.89	20	
Cadmium	50.5	0.500	50.00	0	101	80	120	49.75	1.54	20	
Chromium	52.7	1.00	50.00	0	105	80	120	51.76	1.72	20	
Lead	52.1	1.00	50.00	0	104	80	120	52.03	0.0768	20	
Selenium	51.6	4.00	50.00	0	103	80	120	51.61	0.0775	20	
Strontium	52.9	1.00	50.00	0	106	80	120	52.57	0.682	20	
Zinc	51.0	1.00	50.00	0	102	80	120	50.18	1.68	20	

Sample ID: 17050879-001AMS	SampType: MS	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61422						
Client ID: GC-19 0-2	Batch ID: 23237	TestNo: SW6010B	SW3050B	Analysis Date: 5/24/2017	SeqNo: 1513181						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	62.2	2.00	49.89	10.78	103	75	125				
Barium	392	0.998	49.89	317.1	149	75	125				S
Cadmium	50.3	0.499	49.89	0.3671	100	75	125				
Chromium	69.1	0.998	49.89	15.74	107	75	125				
Lead	66.1	0.998	49.89	14.52	103	75	125				
Selenium	34.4	3.99	49.89	0	68.9	75	125				S
Strontium	96.8	0.998	49.89	41.44	111	75	125				
Zinc	107	0.998	49.89	49.57	114	75	125				

Qualifiers:

* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23237

Sample ID: 17050879-001AMSD	SampType: MSD	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61422						
Client ID: GC-19 0-2	Batch ID: 23237	TestNo: SW6010B	SW3050B	Analysis Date: 5/24/2017	SeqNo: 1513182						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	62.9	1.98	49.54	10.78	105	75	125	62.18	1.18	20	
Barium	387	0.991	49.54	317.1	142	75	125	391.5	1.10	20	S
Cadmium	49.9	0.495	49.54	0.3671	100	75	125	50.31	0.775	20	
Chromium	68.5	0.991	49.54	15.74	106	75	125	69.13	0.985	20	
Lead	65.8	0.991	49.54	14.52	103	75	125	66.13	0.575	20	
Selenium	33.2	3.96	49.54	0	66.9	75	125	34.35	3.55	20	S
Strontium	96.3	0.991	49.54	41.44	111	75	125	96.81	0.480	20	
Zinc	106	0.991	49.54	49.57	113	75	125	106.6	0.977	20	

NOTES:

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
	W	Sample container temperature is out of limit as specified at testcode				



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23240

Sample ID: MB-23240	SampType: MBLK	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61451
Client ID: PBS	Batch ID: 23240	TestNo: 29B/SW7471 SW7471A		Analysis Date: 5/25/2017	SeqNo: 1513587
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury < 0.100 0.100

Sample ID: LCS-23240	SampType: LCS	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61451
Client ID: LCSS	Batch ID: 23240	TestNo: 29B/SW7471 SW7471A		Analysis Date: 5/25/2017	SeqNo: 1513588
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury 0.825 0.100 0.8330 0 99.0 80 120

Sample ID: LCSD-23240	SampType: LCSD	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61451
Client ID: LCSS02	Batch ID: 23240	TestNo: 29B/SW7471 SW7471A		Analysis Date: 5/25/2017	SeqNo: 1513589
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury 0.834 0.100 0.8330 0 100 80 120 0.8248 1.15 20

Sample ID: 17050879-027AMS	SampType: MS	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61451
Client ID: GC-22 18-20	Batch ID: 23240	TestNo: 29B/SW7471 SW7471A		Analysis Date: 5/25/2017	SeqNo: 1513591
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Mercury 0.852 0.108 0.8968 0 95.0 75 125

Qualifiers:

* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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QC SUMMARY REPORT

WO#: 17050879

31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23240

Sample ID: 17050879-027AMSD	SampType: MSD	TestCode: HG_S_29B	Units: mg/Kg-dry	Prep Date: 5/24/2017	RunNo: 61451						
Client ID: GC-22 18-20	Batch ID: 23240	TestNo: 29B/SW7471 SW7471A	Analysis Date: 5/25/2017	SeqNo: 1513594							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.841	0.105	0.8785	0	95.7	75	125	0.8523	1.33	20	

Qualifiers:	* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded	M Matrix Interference
	ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	RL Reporting Limit
	S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
	W Sample container temperature is out of limit as specified at testcode		



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6546
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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23253

Sample ID: MB-23253	SampType: MBLK	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/25/2017	RunNo: 61466						
Client ID: PBS	Batch ID: 23253	TestNo: LDNR 29-B		Analysis Date: 5/25/2017	SeqNo: 1514009						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

True Total Barium < 50.0 50.0

Sample ID: LCS-23253	SampType: LCS	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/25/2017	RunNo: 61466						
Client ID: LCSS	Batch ID: 23253	TestNo: LDNR 29-B		Analysis Date: 5/25/2017	SeqNo: 1514010						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

True Total Barium 5,170 50.0 5,000 0 103 75 125

Sample ID: LCSD-23253	SampType: LCSD	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/25/2017	RunNo: 61466						
Client ID: LCSS02	Batch ID: 23253	TestNo: LDNR 29-B		Analysis Date: 5/25/2017	SeqNo: 1514011						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

True Total Barium 5,180 50.0 5,000 0 104 75 125 5,170 0.290 20

Sample ID: 17050819-001AMS	SampType: MS	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/25/2017	RunNo: 61466						
Client ID: ZZZZZ	Batch ID: 23253	TestNo: LDNR 29-B		Analysis Date: 5/25/2017	SeqNo: 1514013						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

True Total Barium 7,800 45.7 4,566 3,002 105 75 125

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
W	Sample container temperature is out of limit as specified at testcode				



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23253

Sample ID: 17050819-001AMSD	SampType: MSD	TestCode: TTBA	Units: mg/Kg-dry	Prep Date: 5/25/2017	RunNo: 61466						
Client ID: ZZZZZZ	Batch ID: 23253	TestNo: LDNR 29-B		Analysis Date: 5/25/2017	SeqNo: 1514016						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
True Total Barium	7,780	46.0	4,604	3,002	104	75	125	7,799	0.293	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
W	Sample container temperature is out of limit as specified at testcode				



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QC SUMMARY REPORT

WO#: 17050879

31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23254

Sample ID: MB-23254	SampType: MBLK	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/25/2017	RunNo: 61466						
Client ID: PBS	Batch ID: 23254	TestNo: SW6010B	SW3050B	Analysis Date: 5/25/2017	SeqNo: 1514035						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	< 2.00	2.00									
Barium	< 1.00	1.00									
Cadmium	< 0.500	0.500									
Chromium	< 1.00	1.00									
Lead	< 1.00	1.00									
Selenium	< 4.00	4.00									
Strontium	< 1.00	1.00									
Zinc	< 1.00	1.00									

Sample ID: LCS-23254	SampType: LCS	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/25/2017	RunNo: 61466						
Client ID: LCSS	Batch ID: 23254	TestNo: SW6010B	SW3050B	Analysis Date: 5/25/2017	SeqNo: 1514036						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	49.1	2.00	50.00	0	98.2	80	120				
Barium	50.8	1.00	50.00	0	102	80	120				
Cadmium	48.7	0.500	50.00	0	97.4	80	120				
Chromium	51.2	1.00	50.00	0	102	80	120				
Lead	50.0	1.00	50.00	0	100	80	120				
Selenium	47.4	4.00	50.00	0	94.7	80	120				
Strontium	51.4	1.00	50.00	0	103	80	120				
Zinc	48.7	1.00	50.00	0	97.4	80	120				

Qualifiers:

* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23254

Sample ID: LCSD-23254	SampType: LCSD	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/25/2017	RunNo: 61466						
Client ID: LCSS02	Batch ID: 23254	TestNo: SW6010B	SW3050B	Analysis Date: 5/25/2017	SeqNo: 1514037						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	50.6	2.00	50.00	0	101	80	120	49.11	2.91	20	
Barium	51.7	1.00	50.00	0	103	80	120	50.84	1.70	20	
Cadmium	49.6	0.500	50.00	0	99.3	80	120	48.71	1.87	20	
Chromium	52.1	1.00	50.00	0	104	80	120	51.17	1.88	20	
Lead	50.4	1.00	50.00	0	101	80	120	50.04	0.796	20	
Selenium	48.6	4.00	50.00	0	97.2	80	120	47.35	2.56	20	
Strontium	51.9	1.00	50.00	0	104	80	120	51.38	1.01	20	
Zinc	49.7	1.00	50.00	0	99.4	80	120	48.71	1.99	20	

Sample ID: 17050879-028AMS	SampType: MS	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/25/2017	RunNo: 61466						
Client ID: GC-22 26-28	Batch ID: 23254	TestNo: SW6010B	SW3050B	Analysis Date: 5/25/2017	SeqNo: 1514043						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	49.4	1.98	49.53	1.706	96.3	75	125				
Barium	237	0.991	49.53	169.8	135	75	125				S
Cadmium	47.9	0.495	49.53	0	96.8	75	125				
Chromium	71.3	0.991	49.53	17.72	108	75	125				
Lead	55.1	0.991	49.53	6.984	97.1	75	125				
Selenium	35.1	3.96	49.53	0	70.9	75	125				S
Strontium	94.3	0.991	49.53	41.65	106	75	125				
Zinc	90.3	0.991	49.53	37.12	107	75	125				

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
W	Sample container temperature is out of limit as specified at testcode				



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050879

31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23254

Sample ID: 17050879-028AMSD	SampType: MSD	TestCode: 6010_S_29B	Units: mg/Kg-dry	Prep Date: 5/25/2017	RunNo: 61466						
Client ID: GC-22 26-28	Batch ID: 23254	TestNo: SW6010B	SW3050B	Analysis Date: 5/25/2017	SeqNo: 1514044						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	49.1	2.00	49.89	1.706	95.1	75	125	49.42	0.545	20	
Barium	237	0.998	49.89	169.8	134	75	125	236.6	0.00857	20	S
Cadmium	48.0	0.499	49.89	0	96.3	75	125	47.93	0.250	20	
Chromium	71.3	0.998	49.89	17.72	107	75	125	71.35	0.0747	20	
Lead	55.5	0.998	49.89	6.984	97.2	75	125	55.07	0.742	20	
Selenium	34.5	3.99	49.89	0	69.2	75	125	35.10	1.64	20	S
Strontium	94.5	0.998	49.89	41.65	106	75	125	94.31	0.200	20	
Zinc	90.2	0.998	49.89	37.12	106	75	125	90.31	0.0981	20	

NOTES:

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

Qualifiers:	* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded	M Matrix Interference
	ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	RL Reporting Limit
	S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
	W Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
 Website: www.element.com

QC SUMMARY REPORT

WO#: **17050879**
31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23265

Sample ID: 17050628-007ADUP	SampType: dup	TestCode: ESP_S	Units: %	Prep Date: 5/24/2017	RunNo: 61507						
Client ID: ZZZZZZ	Batch ID: 23265	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/26/2017	SeqNo: 1514911						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Exchangeable Sodium %	7.48	0.10						7.15	4.49	20	

Sample ID: 17050879-024ADUP	SampType: dup	TestCode: ESP_S	Units: %	Prep Date: 5/24/2017	RunNo: 61507						
Client ID: GC-22 0-2	Batch ID: 23265	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/26/2017	SeqNo: 1516569						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Exchangeable Sodium %	10.5	0.10						10.72	1.65	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
W	Sample container temperature is out of limit as specified at testcode				



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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23266

Sample ID: 17050628-007ADUP	SampType: dup	TestCode: CEC	Units: meq/100g	Prep Date: 5/24/2017	RunNo: 61506						
Client ID: ZZZZZZ	Batch ID: 23266	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/26/2017	SeqNo: 1514888						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cation Exchange Capacity	48.0	0.100						49.11	2.26	20
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Sample ID: 17050879-024ADUP	SampType: dup	TestCode: CEC	Units: meq/100g	Prep Date: 5/24/2017	RunNo: 61506						
Client ID: GC-22 0-2	Batch ID: 23266	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/26/2017	SeqNo: 1514903						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cation Exchange Capacity	23.6	0.100						24.06	1.93	20
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Sample ID: lcs-23266	SampType: lcs	TestCode: CEC	Units: meq/100g	Prep Date: 5/24/2017	RunNo: 61506						
Client ID: LCSS	Batch ID: 23266	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/26/2017	SeqNo: 1514905						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cation Exchange Capacity	22.3	0.100	25.00	0	89.3	76	124			
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Sample ID: lcsd-23266	SampType: lcsd	TestCode: CEC	Units: meq/100g	Prep Date: 5/24/2017	RunNo: 61506						
Client ID: LCSS02	Batch ID: 23266	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/26/2017	SeqNo: 1514906						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cation Exchange Capacity	22.1	0.100	25.00	0	88.3	76	124	22.32	1.10	20
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Qualifiers:

* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded	M Matrix Interference
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	RL Reporting Limit
S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
W Sample container temperature is out of limit as specified at testcode		



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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23266

Sample ID: ics-23266	SampType: ics	TestCode: CEC	Units: meq/100g	Prep Date: 5/24/2017	RunNo: 61462						
Client ID: LCSS	Batch ID: 23266	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/25/2017	SeqNo: 1513902						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cation Exchange Capacity	20.8	0.100	25.00	0	83.3	76	124				
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Sample ID: icsd-23266	SampType: icsd	TestCode: CEC	Units: meq/100g	Prep Date: 5/24/2017	RunNo: 61462						
Client ID: LCSS02	Batch ID: 23266	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/25/2017	SeqNo: 1513903						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cation Exchange Capacity	21.6	0.100	25.00	0	86.5	76	124	20.84	3.77	20	
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Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: 23301

Sample ID: 17050879-024ADUP	SampType: DUP	TestCode: SAR_S	Units:	Prep Date: 5/30/2017	RunNo: 61557						
Client ID: GC-22 0-2	Batch ID: 23301	TestNo: LDNR 29-B	LDNR 29-B	Analysis Date: 5/30/2017	SeqNo: 1516299						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium Adsorption Ratio	15.3	0.10						15.68	2.20	20	*
Soluble Calcium	< 1.00	1.00						1.02	200	20	
Soluble Magnesium	< 1.00	1.00						0	0	20	
Soluble Sodium	12.4	1.00						12.90	3.82	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: R61425

Sample ID: 17050879-010ADUP	SampType: dup	TestCode: PMOIST	Units: wt%	Prep Date:	RunNo: 61425						
Client ID: GC-18 16-18	Batch ID: R61425	TestNo: LDNR 29-B		Analysis Date: 5/19/2017	SeqNo: 1513274						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	21.0	1.00						19.05	9.56	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: R61445

Sample ID: 17050879-024ADUP	SampType: dup	TestCode: PMOIST	Units: wt%	Prep Date:	RunNo: 61445						
Client ID: GC-22 0-2	Batch ID: R61445	TestNo: LDNR 29-B		Analysis Date: 5/19/2017	SeqNo: 1513492						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	15.2	1.00						14.40	5.42	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: R61448

Sample ID: MB-R61448	SampType: MBLK	TestCode: EC_S	Units: mmhos/cm	Prep Date:	RunNo: 61448						
Client ID: PBS	Batch ID: R61448	TestNo: LDNR 29-B		Analysis Date: 5/25/2017	SeqNo: 1513950						
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: LCS1-R61448	SampType: LCS1	TestCode: EC_S	Units: mmhos/cm	Prep Date:	RunNo: 61448						
Client ID: ZZZZZ	Batch ID: R61448	TestNo: LDNR 29-B		Analysis Date: 5/25/2017	SeqNo: 1513951						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 0.49 0.10 0.46 0 107 90.06 109.93

Sample ID: LCS2-R61448	SampType: LCS2	TestCode: EC_S	Units: mmhos/cm	Prep Date:	RunNo: 61448						
Client ID: ZZZZZ	Batch ID: R61448	TestNo: LDNR 29-B		Analysis Date: 5/25/2017	SeqNo: 1513952						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 55.3 0.10 53.00 0 104 90 110

Sample ID: 17050879-010ADUP	SampType: DUP	TestCode: EC_S	Units: mmhos/cm	Prep Date:	RunNo: 61448						
Client ID: GC-18 16-18	Batch ID: R61448	TestNo: LDNR 29-B		Analysis Date: 5/25/2017	SeqNo: 1513964						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 0.70 0.10 0.74 5.73 20

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
W	Sample container temperature is out of limit as specified at testcode				



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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: R61449

Sample ID: MB-R61449	SampType: MBLK	TestCode: EC_S	Units: mmhos/cm	Prep Date:	RunNo: 61449						
Client ID: PBS	Batch ID: R61449	TestNo: LDNR 29-B		Analysis Date: 5/25/2017	SeqNo: 1513976						
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: LCS1-R61449	SampType: LCS1	TestCode: EC_S	Units: mmhos/cm	Prep Date:	RunNo: 61449						
Client ID: ZZZZZZ	Batch ID: R61449	TestNo: LDNR 29-B		Analysis Date: 5/25/2017	SeqNo: 1513977						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 0.49 0.10 0.46 0 106 90.06 109.93

Sample ID: LCS2-R61449	SampType: LCS2	TestCode: EC_S	Units: mmhos/cm	Prep Date:	RunNo: 61449						
Client ID: ZZZZZZ	Batch ID: R61449	TestNo: LDNR 29-B		Analysis Date: 5/25/2017	SeqNo: 1513978						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 55.2 0.10 53.00 0 104 90 110

Sample ID: 17050879-024ADUP	SampType: DUP	TestCode: EC_S	Units: mmhos/cm	Prep Date:	RunNo: 61449						
Client ID: GC-22 0-2	Batch ID: R61449	TestNo: LDNR 29-B		Analysis Date: 5/25/2017	SeqNo: 1513983						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Electrical Conductivity 1.53 0.10 1.46 4.28 20

Qualifiers:

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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: R61471

Sample ID: MB-R61471	SampType: MBLK	TestCode: HEM_S	Units: % dry wt	Prep Date:	RunNo: 61471						
Client ID: PBS	Batch ID: R61471	TestNo: SW9071B		Analysis Date: 5/26/2017	SeqNo: 1514912						
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: LCS-R61471	SampType: LCS	TestCode: HEM_S	Units: % dry wt	Prep Date:	RunNo: 61471						
Client ID: LCSS	Batch ID: R61471	TestNo: SW9071B		Analysis Date: 5/26/2017	SeqNo: 1514913						
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 0 107 70 130

Sample ID: LCSD-R61471	SampType: LCSD	TestCode: HEM_S	Units: % dry wt	Prep Date:	RunNo: 61471						
Client ID: LCSS02	Batch ID: R61471	TestNo: SW9071B		Analysis Date: 5/26/2017	SeqNo: 1514914						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

HEM, Oil & Grease

0.19 0.05 0.20 0 92.8 70 130 0.21 14.5 40

Sample ID: 17050885-001AMS	SampType: MS	TestCode: HEM_S	Units: % dry wt	Prep Date:	RunNo: 61471						
Client ID: ZZZZZ	Batch ID: R61471	TestNo: SW9071B		Analysis Date: 5/26/2017	SeqNo: 1514915						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

HEM, Oil & Grease

0.29 0.05 0.27 0 107 70 130

Qualifiers:	* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded	M Matrix Interference
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	S Spike Recovery outside accepted recovery limits	SDL Sample detection limit	U Analyte not detected
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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: R61471

Sample ID: 17050885-001ADUP	SampType: DUP	TestCode: HEM_S	Units: % dry wt	Prep Date:	RunNo: 61471						
Client ID: ZZZZZZ	Batch ID: R61471	TestNo: SW9071B		Analysis Date: 5/26/2017	SeqNo: 1514916						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
HEM, Oil & Grease	< 0.05	0.05						0	0	40	

Qualifiers:

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ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit	U	Analyte not detected
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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: R61536

Sample ID: MBLK	SampType: MBLK	TestCode: 9056_LEACH	Units: mg/L	Prep Date:	RunNo: 61536
Client ID: PBW	Batch ID: R61536	TestNo: SW9056A		Analysis Date: 5/30/2017	SeqNo: 1516444
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chloride	< 0.250	0.250			

Sample ID: LCS	SampType: LCS	TestCode: 9056_LEACH	Units: mg/L	Prep Date:	RunNo: 61536
Client ID: LCSW	Batch ID: R61536	TestNo: SW9056A		Analysis Date: 5/30/2017	SeqNo: 1516445
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chloride	9.70	0.250	10.00	0	97.0 80 120

Sample ID: LCSD	SampType: LCSD	TestCode: 9056_LEACH	Units: mg/L	Prep Date:	RunNo: 61536
Client ID: LCSS02	Batch ID: R61536	TestNo: SW9056A		Analysis Date: 5/30/2017	SeqNo: 1516446
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chloride	9.64	0.250	10.00	0	96.4 80 120 9.704 0.620 15

Sample ID: 17050879-027AMS	SampType: MS	TestCode: 9056_LEACH	Units: mg/L	Prep Date:	RunNo: 61536
Client ID: GC-22 18-20	Batch ID: R61536	TestNo: SW9056A		Analysis Date: 5/30/2017	SeqNo: 1516465
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chloride	2,420	25.0	500.0	1,950	93.5 80 120

Qualifiers:

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QC SUMMARY REPORT

WO#: 17050879
 31-May-17

Client: ICON Environmental Services
Project: Guidry Campbell 9326-012-0100

BatchID: R61536

Sample ID: 17050879-027AMSD	SampType: MSD	TestCode: 9056_LEACH	Units: mg/L	Prep Date:	RunNo: 61536						
Client ID: GC-22 18-20	Batch ID: R61536	TestNo: SW9056A		Analysis Date: 5/30/2017	SeqNo: 1516466						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	2,420	25.0	500.0	1,950	93.6	80	120	2,417	0.0109	15	

Qualifiers:

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ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
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Sample Log-In Check List

Client Name: **ICON_ENV** Work Order Number: **17050879** RcptNo: **1**

Logged by:	Danielle Hollier	5/19/2017 2:05:00 PM	<i>Danielle Hollier</i>
Completed By:	Danielle Hollier	5/19/2017 3:03:07 PM	<i>Danielle Hollier</i>
Reviewed By:	Caitlin Duplantis	5/23/2017 4:27:22 PM	<i>Caitlin Duplantis</i>

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)

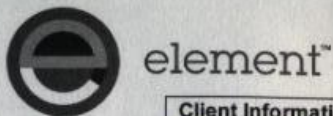
17. Was client notified of all discrepancies with this order? Yes No NA

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	4.2	Good	Not Present			



Chain of Custody

Laboratory Number: **17050879**

Client Information:	Billing Information:	PO Number:	Project Name/Number:	Page 1 of 4
Company Name: Icon Env			Quidry Campbell	Matrix Code
Contact Name: Jason Gills		Quote Number: 9326-012-0100	Sampler's Signature: <i>[Signature]</i>	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: 2044 Commercial Dr		Required QC Level	Shipping Method:	
City, State Zip: Port Allen LA 70767	<i>Same</i>	Bill Monthly <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	UPS / FedEx / NOW DHL / Element / Hand / Mail	
Phone Number: 225 344 8490 Ext:	Ext:			
Fax Number:				
E-mail Address:				

Which Regulations Apply:		Turn Time		Container	Pres.	Requested Tests		Comments		
<input type="checkbox"/> RCRA	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Standard	(Rush turn times will incur a surcharge and must be pre-approved by lab.)			Quantity	Type			
<input type="checkbox"/> POTW	<input type="checkbox"/> Distribution	RUSH								
<input type="checkbox"/> NPDES	<input type="checkbox"/> Special	<input type="checkbox"/> 1 Day	ASAP							
<input type="checkbox"/> USDA/FDA	<input type="checkbox"/> State DNR	<input type="checkbox"/> 2 Day	Before May 2019							
<input checked="" type="checkbox"/> RECAP/RISC	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Other								
Sample ID/Description		Collection Information			Quantity	Type P=Plastic, G=Glass, V=Vial	HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	Requested Tests		Comments
Date	Time	Grab / Composite	Matrix							
GC-19	0-2	5-15-17	1500	G	SOL	1	P			
GC-19	4-6		1505							
GC-19	8-10		1515							
GC-19	16-18		1535							
GC-19	22-24		1550							
GC-19	26-28		1600							
GC-18	0-2	5-15-17	1615			2	P, G			
GC-18	4-6		1620							
GC-18	8-10		1625							

	Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
1	<i>[Signature]</i>	5/19/19 1215	<i>[Signature]</i>	5/19/19 1215	
2					Received at lab on ice? OH
3	<i>[Signature]</i>	5-19-17 1405	<i>[Signature]</i>	5-19-17 1405	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 4.2°C

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- 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 574-269-6569
- 3371 Cleveland Road, Suite 100A South Bend, IN 46628-9780 USA P 574-277-0707 F 574-273-5699
- 2417 W. Pinhook Rd Lafayette, LA 70508-3344 USA P 337-235-0483 F 337-233-6540



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Chain of Custody

Laboratory Number: 17050879

Client Information:		Billing Information:		PO Number:	Project Name/Number:	Page 2 of 4
Company Name:	Icon Env				Gundry Campbell	Matrix Code
Contact Name:				Quote Number:		DW = Drinking Water
Address:				Required QC Level:		WW = Waste Water
City, State Zip:				Bill Monthly	Sampler's Signature	GW = Ground Water
Phone Number:	Ext:		Ext:	<input type="checkbox"/> Yes		AQ = Aqueous
Fax Number:				<input type="checkbox"/> No	Shipping Method:	OT = Other
E-mail Address:					UPS / FedEx / NOW	SL = Sludge SOL = Solid
					DHL / Element / Hand / Mail	O = Oil SO = Soil
						F = Food SW = Swab
						NG = Natural Gas
						NGL = Natural Gas Liquid
						PW = Produced Water
						CF = Completion Fluid

Which Regulations Apply:		Turn Time		(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container		Pres.	Requested Tests						Comments	
<input type="checkbox"/> RCRA	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Standard	<input type="checkbox"/> RUSH		Quantity	Type P=Plastic, G=Glass, V=Vial	HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	EC	SAR/ESP	CEC	Leachate	Zn/B Metals	1/6 Mo isarc		TPH-D/O
<input type="checkbox"/> POTW	<input type="checkbox"/> Distribution	<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input checked="" type="checkbox"/> Other	Sample ID/Description	Date	Time	Grab / Composite	Matrix						
<input type="checkbox"/> NPDES	<input type="checkbox"/> Special	<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input checked="" type="checkbox"/> Other	GC-18	16-18	5-16-17	830	G	Sol	1	P			
<input type="checkbox"/> USDA/FDA	<input checked="" type="checkbox"/> State DNR	<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input checked="" type="checkbox"/> Other	GC-18	26-28		850							
<input checked="" type="checkbox"/> RECAP/RISC	<input type="checkbox"/> Other	<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input checked="" type="checkbox"/> Other	GC-18	30-32		900							
		<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input checked="" type="checkbox"/> Other	GC-20	0-2	5-17-17	920			2	P, G			
		<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input checked="" type="checkbox"/> Other	GC-20	4-6		925							
		<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input checked="" type="checkbox"/> Other	GC-20	8-10		930							
		<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input checked="" type="checkbox"/> Other	GC-20	12-14		940							
		<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input checked="" type="checkbox"/> Other	GC-20	20-22		1050			1	P			
		<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input checked="" type="checkbox"/> Other	GC-20	28-30		1170			1	P			

	Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
1	[Signature]	5/19/19 1215	[Signature]	5/19/19 1215	
2					Received at lab on ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 4.2°C
3	[Signature]	5-19-17 1405	[Signature]	5-19-17 1405	

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Chain of Custody

Laboratory Number: **17050879**

Page **3** of **4**

Company Name: Contact Name: Address: City, State Zip: Phone Number: Fax Number: E-mail Address:	Client Information:	Billing Information:	PO Number:	Project Name/Number:	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
	Iron Env <i>same</i>		Quote Number:	Guidry Campbell	
			Required QC Level:	Sampler's Signature:	
	Phone Ext: Ext:		Bill Monthly:	Shipping Method:	
	<input type="checkbox"/> Yes <input type="checkbox"/> No		UPS / FedEx / NOW DHL / Element / Hand / Mail		
	Fax Number: E-mail Address:				

Which Regulations Apply:	Turn Time	Collection Information	Matrix	Container		Pres.	Requested Tests					Comments	
				Quantity	Type		HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	EC	SAB/ESP	CEC	Leachate/Cl		ZB Metals
<input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USDA/FDA <input checked="" type="checkbox"/> RECAP/RISC <input type="checkbox"/> Drinking Water <input type="checkbox"/> Distribution <input type="checkbox"/> Special <input checked="" type="checkbox"/> State DNR <input type="checkbox"/> Other	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input checked="" type="checkbox"/> Other	Date: Time: 5-18-17 1000 ↓ ↓ 4-6 1005 ↓ ↓ 10-12 1020 ↓ ↓ 14-16 1030 ↓ ↓ 24-26 1055 5-18-17 1545 ↓ ↓ 4-7 1550 ↓ ↓ 12-14 1625 ↓ ↓ 18-20 1640	Grab / Composite G SOL		P		X	X	X	X	X	X	
							X	X	X	X	X		
							X	X	X	X	X		
							X	X	X	X	X		
							X	X	X	X	X		
							X	X	X	X	X		
							X	X	X	X	X		
							X	X	X	X	X		

	Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
1	<i>[Signature]</i>	5/19/19 1215	<i>[Signature]</i>	5/19/19 1215	
2	<i>[Signature]</i>				Received at lab on ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 4.22
3	<i>[Signature]</i>	5-19-17 1405	<i>[Signature]</i>	5-19-17 1405	

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




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Chain of Custody

Laboratory Number: **17050479**

Company Name: Contact Name: Address: City, State Zip: Phone Number: Fax Number: E-mail Address:	Client Information:		Billing Information:		PO Number:	Project Name/Number: <i>Gundry Campbell</i>	Page 4 of 4
	<i>Icon</i>				Quote Number:	Sampler's 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
	<i>same</i>				Required QC Level:		
	Ext:		Ext:		Bill Monthly:		
					<input type="checkbox"/> Yes	Shipping Method:	
					<input type="checkbox"/> No	UPS / FedEx / NOW	
					DHL / Element / <i>Hand</i> / Mail		

Which Regulations Apply:		Turn Time		(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container		Pres.		Requested Tests				Comments		
<input type="checkbox"/> RCRA	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Standard			Quantity	Type	HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃								
<input type="checkbox"/> POTW	<input type="checkbox"/> Distribution	RUSH			P=Plastic, G=Glass, V=Vial										
<input type="checkbox"/> NPDES	<input type="checkbox"/> Special	<input type="checkbox"/> 1 Day													
<input type="checkbox"/> USDA/FDA	<input checked="" type="checkbox"/> State <i>DR</i>	<input type="checkbox"/> 2 Day <i>ASAP</i>													
<input checked="" type="checkbox"/> RECAP/RISC	<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Other													
Sample ID/Description		Collection Information			Quantity	Type	Pres.	EC	ZBB Metals	1/2 Moisture					
Date	Time	Grab / Composite	Matrix												
<i>GC-22</i>	<i>26-28</i>	<i>5-18-17</i>	<i>1700</i>	<i>G</i>	<i>1</i>	<i>P</i>	<i>-</i>	<i>X</i>	<i>X</i>	<i>X</i>					
<i>GC-22</i>	<i>32-34</i>	<i>↓</i>	<i>1715</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>X</i>	<i>X</i>	<i>X</i>					
<i>GC-22</i>	<i>38-40</i>	<i>↓</i>	<i>1730</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>X</i>	<i>X</i>	<i>X</i>					

	Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
1		<i>5/19/19 1215</i>		<i>5/19/19 1215</i>	
2					Received at lab on ice? <i>OH</i>
3		<i>5-19-17 1405</i>		<i>5-19-17 1405</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: <i>4.22</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.

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

June 02, 2017

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

RE: Guidry 9326-012-0100

Order No.: 17050962

Dear Greg Miller:

Element Materials Technology Lafayette received 3 sample(s) on 5/23/2017 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. 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 "Cristina Thibeaux".

Cristina Thibeaux
Customer Service Supervisor
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

Case Narrative

WO#: 17050962
Date: 6/2/2017

CLIENT: ICON Environmental Services
Project: Guidry 9326-012-0100

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).



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

Analytical Report

(consolidated)

WO#: 17050962

Date Reported: 6/2/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/23/2017 10:30:00 AM
Project: Guidry 9326-012-0100
Lab ID: 17050962-001 **Matrix:** AQUEOUS
Client Sample ID GC-20B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
TPH-D/O IN WATER BY SW8015					SW8015B	Analyst: CRM
TPH DRO/ORO IN WATER BY SW8015					SW3511	
TPH (Diesel Range)	0.508	0.129		mg/L	1	5/26/2017 5:54:00 PM
TPH (Oil Range)	< 0.119	0.119		mg/L	1	5/26/2017 5:54:00 PM
Surr: 4-Terphenyl-d14	53.2	51.4 - 146		%Rec	1	5/26/2017 5:54:00 PM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8015B	Analyst: KKD
TPH-GRO IN WATER BY SW8015						
TPH (Gasoline Range)	< 0.150	0.150		mg/L	1	5/25/2017 3:50:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	99.0	70 - 130		%Rec	1	5/25/2017 3:50:00 PM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8021B	Analyst: KKD
BTEX IN WATER BY SW8021						
Benzene	0.0160	0.00500		mg/L	1	5/25/2017 3:50:00 PM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	5/31/2017 1:02:00 AM
Toluene	< 0.0100	0.0100		mg/L	1	5/31/2017 1:02:00 AM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	5/31/2017 1:02:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	97.2	70 - 130		%Rec	1	5/25/2017 3:50:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	86.0	70 - 130		%Rec	1	5/31/2017 1:02:00 AM
MERCURY IN GROUND WATER, TOTAL					SW7470A	Analyst: MRM
Mercury	< 0.000200	0.000200		mg/L	1	5/26/2017 1:36:26 PM
INORGANIC ANIONS IN WATER BY IC					SW9056A	Analyst: SGP
Chloride	12,600	250		mg/L	1000	5/24/2017 12:31:59 PM
Sulfate	< 12.5	12.5		mg/L	50	5/24/2017 3:50:40 PM
METALS IN WATER BY ICP, TOTALS					SW6010B	Analyst: STS
Arsenic	< 0.0100	0.0100		mg/L	1	5/26/2017 4:02:05 PM
Barium	7.61	0.100		mg/L	10	5/26/2017 4:14:03 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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

Analytical Report

(consolidated)

WO#: 17050962

Date Reported: 6/2/2017

CLIENT: ICON Environmental Services

Collection Date: 5/23/2017 10:30:00 AM

Project: Guidry 9326-012-0100

Lab ID: 17050962-001

Matrix: AQUEOUS

Client Sample ID GC-20B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS IN WATER BY ICP, TOTALS				SW6010B		Analyst: STS
Cadmium	< 0.00500	0.00500		mg/L	1	5/26/2017 4:02:05 PM
Calcium	561	5.00		mg/L	10	5/26/2017 4:14:03 PM
Chromium	< 0.0100	0.0100		mg/L	1	5/26/2017 4:02:05 PM
Iron	12.4	1.00		mg/L	100	5/26/2017 4:50:53 PM
Lead	< 0.0100	0.0100		mg/L	1	5/26/2017 4:02:05 PM
Magnesium	188	5.00		mg/L	10	5/26/2017 4:14:03 PM
Manganese	5.39	0.100		mg/L	10	5/26/2017 4:14:03 PM
Potassium	16.6	5.00		mg/L	1	5/26/2017 4:02:05 PM
Sodium	6,480	1,000		mg/L	100	5/26/2017 4:50:53 PM
Strontium	13.6	1.00		mg/L	100	5/26/2017 4:50:53 PM
Zinc	< 0.0100	0.0100		mg/L	1	5/26/2017 4:02:05 PM

ALKALINITY; TOTAL, CARB, BICARB				SM2320 B		Analyst: TBB
Alkalinity, Bicarbonate (As CaCO3)	308	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Total (As CaCO3)	308	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM

TOTAL DISSOLVED SOLIDS				SM2540C		Analyst: GMS
Total Dissolved Solids (Residue, Filterable)	21,500	2,000		mg/L	100	5/23/2017 4:40:00 PM

Qualifiers:	H	M
	Holding times for preparation or analysis exceeded	Matrix Interference
	ND Not Detected at the Reporting Limit	RL Reporting Limit
	S Spike Recovery outside accepted recovery limits	SDL Sample detection limit
	U Analyte not detected	W Sample container temperature is out of limit as specified at testcode



Element Materials Technology Lafayette
 2417 W. Pinhook Road
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 Website: www.element.com

Analytical Report

(consolidated)

WO#: 17050962

Date Reported: 6/2/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/23/2017 2:00:00 PM
Project: Guidry 9326-012-0100
Lab ID: 17050962-002 **Matrix:** AQUEOUS
Client Sample ID GC-20A

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
TPH-D/O IN WATER BY SW8015					SW8015B	Analyst: CRM
TPH DRO/ORO IN WATER BY SW8015					SW3511	
TPH (Diesel Range)	3.21	0.128		mg/L	1	5/26/2017 6:26:00 PM
TPH (Oil Range)	0.524	0.118		mg/L	1	5/26/2017 6:26:00 PM
Surr: 4-Terphenyl-d14	59.3	51.4 - 146		%Rec	1	5/26/2017 6:26:00 PM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8015B	Analyst: KKD
TPH-GRO IN WATER BY SW8015						
TPH (Gasoline Range)	< 0.150	0.150		mg/L	1	5/25/2017 4:17:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	98.0	70 - 130		%Rec	1	5/25/2017 4:17:00 PM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8021B	Analyst: KKD
BTEX IN WATER BY SW8021						
Benzene	< 0.00500	0.00500		mg/L	1	5/28/2017 11:22:00 PM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	5/28/2017 11:22:00 PM
Toluene	< 0.0150	0.0150		mg/L	1	5/28/2017 11:22:00 PM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	5/28/2017 11:22:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	110	70 - 130		%Rec	1	5/28/2017 11:22:00 PM
MERCURY IN GROUND WATER, TOTAL					SW7470A	Analyst: MRM
Mercury	< 0.000200	0.000200		mg/L	1	5/26/2017 1:28:24 PM
INORGANIC ANIONS IN WATER BY IC					SW9056A	Analyst: SGP
Chloride	12,900	250		mg/L	1000	5/24/2017 12:45:43 PM
Sulfate	< 12.5	12.5		mg/L	50	5/24/2017 4:04:24 PM
METALS IN WATER BY ICP, TOTALS					SW6010B	Analyst: STS
Arsenic	0.0179	0.0100		mg/L	1	5/26/2017 4:41:12 PM
Barium	3.57	0.100		mg/L	10	5/26/2017 4:45:23 PM
Cadmium	< 0.00500	0.00500		mg/L	1	5/26/2017 4:41:12 PM
Calcium	222	5.00		mg/L	10	5/26/2017 4:45:23 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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

Analytical Report

(consolidated)

WO#: 17050962

Date Reported: 6/2/2017

CLIENT: ICON Environmental Services

Collection Date: 5/23/2017 2:00:00 PM

Project: Guidry 9326-012-0100

Lab ID: 17050962-002

Matrix: AQUEOUS

Client Sample ID GC-20A

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS IN WATER BY ICP, TOTALS				SW6010B		Analyst: STS
Chromium	< 0.0100	0.0100		mg/L	1	5/26/2017 4:41:12 PM
Iron	0.541	0.0100		mg/L	1	5/26/2017 4:41:12 PM
Lead	< 0.0100	0.0100		mg/L	1	5/26/2017 4:41:12 PM
Magnesium	72.4	0.500		mg/L	1	5/26/2017 4:41:12 PM
Manganese	6.77	0.100		mg/L	10	5/26/2017 4:45:23 PM
Potassium	40.0	5.00		mg/L	1	5/26/2017 4:41:12 PM
Sodium	7,440	100		mg/L	10	5/26/2017 4:45:23 PM
Strontium	9.88	0.100		mg/L	10	5/26/2017 4:45:23 PM
Zinc	< 0.0100	0.0100		mg/L	1	5/26/2017 4:41:12 PM
ALKALINITY; TOTAL, CARB, BICARB				SM2320 B		Analyst: TBB
Alkalinity, Bicarbonate (As CaCO3)	450	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Total (As CaCO3)	450	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
TOTAL DISSOLVED SOLIDS				SM2540C		Analyst: GMS
Total Dissolved Solids (Residue, Filterable)	20,500	2,000		mg/L	100	5/23/2017 4:40:00 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
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Analytical Report

(consolidated)

WO#: 17050962

Date Reported: 6/2/2017

CLIENT: ICON Environmental Services

Collection Date: 5/23/2017

Project: Guidry 9326-012-0100

Lab ID: 17050962-003

Matrix: AQUEOUS

Client Sample ID Trip Blank

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX/TPH-G IN WATER BY SW8021/8015				SW8015B	Analyst: KKD	
TPH-GRO IN WATER BY SW8015						
TPH (Gasoline Range)	< 0.150	0.150		mg/L	1	5/25/2017 4:44:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	96.2	70 - 130		%Rec	1	5/25/2017 4:44:00 PM
BTEX/TPH-G IN WATER BY SW8021/8015				SW8021B	Analyst: KKD	
BTEX IN WATER BY SW8021						
Benzene	< 0.00500	0.00500		mg/L	1	5/28/2017 11:49:00 PM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	5/28/2017 11:49:00 PM
Toluene	< 0.0100	0.0100		mg/L	1	5/28/2017 11:49:00 PM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	5/28/2017 11:49:00 PM
Surr: alpha, alpha, alpha-Trifluorotoluene	110	70 - 130		%Rec	1	5/28/2017 11:49:00 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23242

Sample ID: MB-23242	SampType: MBLK	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: PBW	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/26/2017	SeqNo: 1515298						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	< 0.130	0.130									
TPH (Oil Range)	< 0.120	0.120									
Surr: 4-Terphenyl-d14	0.0462		0.05734		80.5	51.4	146				

Sample ID: 17050891-003BDUP	SampType: DUP	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: ZZZZZ	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515302						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	0.189	0.130						0.1651	13.5	0	
TPH (Oil Range)	< 0.120	0.120						0	0	0	
Surr: 4-Terphenyl-d14	0.0376		0.05735		65.6	51.4	146		0	0	

Sample ID: 17050891-003BMS-D	SampType: MS	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: ZZZZZ	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515303						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	1.87	0.131	1.722	0.1651	98.8	70	130				
Surr: 4-Terphenyl-d14	0.0416		0.05740		72.5	51.4	146				

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6546
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23242

Sample ID: 17050891-003BMS-M	SampType: MS	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: ZZZZZZ	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515310						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	2.08	0.120	1.719	0.04809	118	70	130				
Surr: 4-Terphenyl-d14	0.0529		0.05730		92.2	51.4	146				

Sample ID: 17050891-003BMSD-	SampType: MSD	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: ZZZZZZ	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515311						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	1.80	0.120	1.713	0.04809	102	70	130	2.082	14.3	36.4
Surr: 4-Terphenyl-d14	0.0340		0.05709		59.5	51.4	146		0	40

Sample ID: LCS-D-23242	SampType: LCS	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: LCSW	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515312						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	2.19	0.131	1.724	0	127	70	130			
Surr: 4-Terphenyl-d14	0.0649		0.05745		113	51.4	146			

Sample ID: LCSD-D-23242	SampType: LCSD	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: LCSS02	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515313						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	2.10	0.131	1.721	0	122	70	130	2.192	4.27	14.1
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Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23242

Sample ID: LCSD-D-23242	SampType: LCSD	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: LCSS02	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515313						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 4-Terphenyl-d14	0.0615		0.05737		107	51.4	146		0	40	
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Sample ID: LCSD-M-23242	SampType: LCSD	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: LCSS02	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515314						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	2.21	0.121	1.727	0	128	70	130	2.212	0	23.2	
Surr: 4-Terphenyl-d14	0.0694		0.05755		121	51.4	146		0	40	

Sample ID: LCS-M-23242	SampType: LCS	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: LCSW	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515315						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	2.09	0.120	1.720	0	122	70	130				
Surr: 4-Terphenyl-d14	0.0658		0.05734		115	51.4	146				

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23252

Sample ID: MB-23252	SampType: MBLK	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: PBW	Batch ID: 23252	TestNo: SW6010B	Analysis Date: 5/26/2017	SeqNo: 1514965							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	< 0.0100	0.0100									
Barium	< 0.0100	0.0100									
Cadmium	< 0.00500	0.00500									
Calcium	< 0.500	0.500									
Chromium	< 0.0100	0.0100									
Iron	< 0.0100	0.0100									
Lead	< 0.0100	0.0100									
Magnesium	< 0.500	0.500									
Manganese	< 0.0100	0.0100									
Potassium	< 5.00	5.00									
Sodium	< 10.0	10.0									
Strontium	< 0.0100	0.0100									
Zinc	< 0.0100	0.0100									

Sample ID: LCS-23252	SampType: LCS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: LCSW	Batch ID: 23252	TestNo: SW6010B	Analysis Date: 5/26/2017	SeqNo: 1514966							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.511	0.0100	0.5000	0	102	80	120				
Barium	0.506	0.0100	0.5000	0	101	80	120				
Cadmium	0.503	0.00500	0.5000	0	101	80	120				
Calcium	50.5	0.500	50.00	0	101	80	120				
Chromium	0.506	0.0100	0.5000	0	101	80	120				
Iron	0.509	0.0100	0.5000	0	102	80	120				
Lead	0.508	0.0100	0.5000	0	102	80	120				

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23252

Sample ID: LCS-23252	SampType: LCS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: LCSW	Batch ID: 23252	TestNo: SW6010B	Analysis Date: 5/26/2017	SeqNo: 1514966							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	51.0	0.500	50.00	0	102	80	120				
Manganese	0.504	0.0100	0.5000	0	101	80	120				
Potassium	50.1	5.00	50.00	0	100	80	120				
Sodium	50.3	10.0	50.00	0	101	80	120				
Strontium	0.508	0.0100	0.5000	0	102	80	120				
Zinc	0.507	0.0100	0.5000	0	101	80	120				

Sample ID: LCSD-23252	SampType: LCSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: LCSS02	Batch ID: 23252	TestNo: SW6010B	Analysis Date: 5/26/2017	SeqNo: 1514967							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.510	0.0100	0.5000	0	102	80	120	0.5108	0.118	20	
Barium	0.509	0.0100	0.5000	0	102	80	120	0.5057	0.591	20	
Cadmium	0.505	0.00500	0.5000	0	101	80	120	0.5028	0.377	20	
Calcium	50.3	0.500	50.00	0	101	80	120	50.54	0.436	20	
Chromium	0.509	0.0100	0.5000	0	102	80	120	0.5057	0.572	20	
Iron	0.513	0.0100	0.5000	0	103	80	120	0.5087	0.764	20	
Lead	0.510	0.0100	0.5000	0	102	80	120	0.5077	0.530	20	
Magnesium	50.8	0.500	50.00	0	102	80	120	50.96	0.393	20	
Manganese	0.506	0.0100	0.5000	0	101	80	120	0.5039	0.475	20	
Potassium	49.8	5.00	50.00	0	99.6	80	120	50.14	0.640	20	
Sodium	49.2	10.0	50.00	0	98.4	80	120	50.34	2.29	20	
Strontium	0.507	0.0100	0.5000	0	101	80	120	0.5076	0.118	20	
Zinc	0.509	0.0100	0.5000	0	102	80	120	0.5066	0.532	20	

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference
 RL Reporting Limit S Spike Recovery outside accepted recovery limits
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit
 SDL Sample detection limit



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23252

Sample ID: 17050962-001DMS	SampType: MS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: GC-20B	Batch ID: 23252	TestNo: SW6010B	Analysis Date: 5/26/2017	SeqNo: 1514971							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.565	0.0100	0.5000	0	113	75	125				
Cadmium	0.527	0.00500	0.5000	0	105	75	125				
Chromium	0.499	0.0100	0.5000	0.003000	99.1	75	125				
Lead	0.464	0.0100	0.5000	0	92.8	75	125				
Potassium	82.8	5.00	50.00	16.60	132	75	125				S
Zinc	0.537	0.0100	0.5000	0	107	75	125				

Sample ID: 17050962-001DMSD	SampType: MSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: GC-20B	Batch ID: 23252	TestNo: SW6010B	Analysis Date: 5/26/2017	SeqNo: 1514972							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.554	0.0100	0.5000	0	111	75	125	0.5646	1.97	20	
Cadmium	0.507	0.00500	0.5000	0	101	75	125	0.5270	3.85	20	
Chromium	0.478	0.0100	0.5000	0.003000	95.1	75	125	0.4986	4.16	20	
Lead	0.447	0.0100	0.5000	0	89.5	75	125	0.4638	3.60	20	
Potassium	82.2	5.00	50.00	16.60	131	75	125	82.78	0.691	20	S
Zinc	0.513	0.0100	0.5000	0	103	75	125	0.5369	4.61	20	

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

Sample ID: 17050962-001DMS	SampType: MS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: GC-20B	Batch ID: 23252	TestNo: SW6010B	Analysis Date: 5/26/2017	SeqNo: 1514974							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6546
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23252

Sample ID: 17050962-001DMS	SampType: MS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: GC-20B	Batch ID: 23252	TestNo: SW6010B	Analysis Date: 5/26/2017	SeqNo: 1514974							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	8.09	0.100	0.5000	7.611	95.2	75	125				
Calcium	612	5.00	50.00	560.9	103	75	125				
Magnesium	239	5.00	50.00	188.5	101	75	125				
Manganese	5.98	0.100	0.5000	5.391	118	75	125				

Sample ID: 17050962-001DMSD	SampType: MSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: GC-20B	Batch ID: 23252	TestNo: SW6010B	Analysis Date: 5/26/2017	SeqNo: 1514979							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	7.74	0.100	0.5000	7.611	25.4	75	125	8.087	4.41	20	S
Calcium	599	5.00	50.00	560.9	77.0	75	125	612.5	2.16	20	
Magnesium	235	5.00	50.00	188.5	92.6	75	125	239.2	1.86	20	
Manganese	5.67	0.100	0.5000	5.391	55.8	75	125	5.981	5.34	20	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).

Sample ID: 17050962-001DMS	SampType: MS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: GC-20B	Batch ID: 23252	TestNo: SW6010B	Analysis Date: 5/26/2017	SeqNo: 1514983							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	15.5	1.00	0.5000	12.44	608	75	125				S
Sodium	6,540	1,000	50.00	6,478	126	75	125				S
Strontium	13.8	1.00	0.5000	13.58	42.0	75	125				S

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23252

Sample ID: 17050962-001DMSD	SampType: MSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508
Client ID: GC-20B	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514984

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	13.6	1.00	0.5000	12.44	240	75	125	15.48	12.6	20	S
Sodium	6,330	1,000	50.00	6,478	-302	75	125	6,541	3.33	20	S
Strontium	13.8	1.00	0.5000	13.58	46.0	75	125	13.79	0.145	20	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).

Qualifiers:	H Holding times for preparation or analysis exceeded	M Matrix Interference	ND Not Detected at the Reporting Limit
	RL Reporting Limit	S Spike Recovery outside accepted recovery limits	SDL Sample detection limit
	U Analyte not detected	W Sample container temperature is out of limit as specified at testcode	



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23278

Sample ID: MB-23278	SampType: MBLK	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504						
Client ID: PBW	Batch ID: 23278	TestNo: SW7470A		Analysis Date: 5/26/2017	SeqNo: 1514765						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury < 0.000200 0.000200

Sample ID: LCS-23278	SampType: LCS	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504						
Client ID: LCSW	Batch ID: 23278	TestNo: SW7470A		Analysis Date: 5/26/2017	SeqNo: 1514768						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.0100 0.000200 0.01000 0 100 80 120

Sample ID: LCSD-23278	SampType: LCSD	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504						
Client ID: LCSS02	Batch ID: 23278	TestNo: SW7470A		Analysis Date: 5/26/2017	SeqNo: 1514769						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.0100 0.000200 0.01000 0 100 80 120 0.01004 0.329 20

Sample ID: 17050962-002DMS	SampType: MS	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504						
Client ID: GC-20A	Batch ID: 23278	TestNo: SW7470A		Analysis Date: 5/26/2017	SeqNo: 1514771						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.00413 0.000200 0.01000 0 41.3 75 125 S

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23278

Sample ID: 17050962-002DMSD	SampType: MSD	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504						
Client ID: GC-20A	Batch ID: 23278	TestNo: SW7470A		Analysis Date: 5/26/2017	SeqNo: 1514772						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00430	0.000200	0.01000	0	43.0	75	125	0.004131	4.02	20	S

Sample ID: 17050962-002DPDS	SampType: PDS	TestCode: HG_W_7470A	Units: mg/L	Prep Date:	RunNo: 61504						
Client ID: GC-20A	Batch ID: 23278	TestNo: SW7470A		Analysis Date: 5/26/2017	SeqNo: 1514806						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	6.08	0.000200	0.0100	-0.00167	40.0	80	120				S

Sample ID: 17050962-002DPDSD	SampType: PDS	TestCode: HG_W_7470A	Units: mg/L	Prep Date:	RunNo: 61504						
Client ID: GC-20A	Batch ID: 23278	TestNo: SW7470A		Analysis Date: 5/26/2017	SeqNo: 1514809						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00613	0.000200	0.01520	0	40.3	80	120	0.006078	0.788	20	S

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

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61357

Sample ID: MB-R61357	SampType: MBLK	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61357						
Client ID: PBW	Batch ID: R61357	TestNo: SM2540C		Analysis Date: 5/23/2017	SeqNo: 1513216						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filterable) < 20.0 20.0

Sample ID: LCS-R61357	SampType: LCS	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61357						
Client ID: LCSW	Batch ID: R61357	TestNo: SM2540C		Analysis Date: 5/23/2017	SeqNo: 1513217						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filterable) 1,000 20.0 1,000 0 100 85 115

Sample ID: LCSD-R61357	SampType: LCSD	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61357						
Client ID: LCSS02	Batch ID: R61357	TestNo: SM2540C		Analysis Date: 5/23/2017	SeqNo: 1513218						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filterable) 996 20.0 1,000 0 99.6 85 115 1,003 0.700 10

Sample ID: 17050891-001DDUP	SampType: DUP	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61357						
Client ID: ZZZZZ	Batch ID: R61357	TestNo: SM2540C		Analysis Date: 5/23/2017	SeqNo: 1513224						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filterable) 4,530 200 4,670 3.04 10

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services

Project: Guidry 9326-012-0100

BatchID: R61357

Sample ID: 17050891-001DDUP	SampType: DUP	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61357						
Client ID: ZZZZZZ	Batch ID: R61357	TestNo: SM2540C		Analysis Date: 5/23/2017	SeqNo: 1513224						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 17050826-001BDUP	SampType: DUP	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61357						
Client ID: ZZZZZZ	Batch ID: R61357	TestNo: SM2540C		Analysis Date: 5/23/2017	SeqNo: 1513229						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filterable)	19,500	2,000						20,900	6.93	10	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61404

Sample ID: MBLK	SampType: MBLK	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61404						
Client ID: PBW	Batch ID: R61404	TestNo: SW9056A		Analysis Date: 5/24/2017	SeqNo: 1513298						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	< 0.250	0.250									
Sulfate	< 0.250	0.250									

Sample ID: LCS	SampType: LCS	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61404						
Client ID: LCSW	Batch ID: R61404	TestNo: SW9056A		Analysis Date: 5/24/2017	SeqNo: 1513300						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	9.66	0.250	10.00	0	96.6	80	120				
Sulfate	9.73	0.250	10.00	0	97.3	80	120				

Sample ID: LCSD	SampType: LCSD	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61404						
Client ID: LCSS02	Batch ID: R61404	TestNo: SW9056A		Analysis Date: 5/24/2017	SeqNo: 1513301						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	9.60	0.250	10.00	0	96.0	80	120	9.661	0.668	15	
Sulfate	9.73	0.250	10.00	0	97.3	80	120	9.733	0.0530	15	

Sample ID: 17050962-002cms	SampType: MS	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61404						
Client ID: GC-20A	Batch ID: R61404	TestNo: SW9056A		Analysis Date: 5/24/2017	SeqNo: 1513308						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	17,600	250	5,000	12,850	95.5	80	120				
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Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61404

Sample ID: 17050962-002cms	SampType: MS	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61404						
Client ID: GC-20A	Batch ID: R61404	TestNo: SW9056A		Analysis Date: 5/24/2017	SeqNo: 1513308						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate	4,860	250	5,000	0	97.1	80	120				
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Sample ID: 17050962-002cmsd	SampType: MSD	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61404						
Client ID: GC-20A	Batch ID: R61404	TestNo: SW9056A		Analysis Date: 5/24/2017	SeqNo: 1513309						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	17,600	250	5,000	12,850	94.0	80	120	17,630	0.430	15	
Sulfate	4,850	250	5,000	0	97.0	80	120	4,857	0.0915	15	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6546
 Website: www.element.com

QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61481

Sample ID: MB-R61481	SampType: MBLK	TestCode: ALK	Units: mgCaCO3/L	Prep Date:	RunNo: 61481						
Client ID: PBW	Batch ID: R61481	TestNo: SM2320 B		Analysis Date: 5/26/2017	SeqNo: 1514265						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Bicarbonate (As CaCO3)	< 10.0	10.0									
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0									
Alkalinity, Total (As CaCO3)	< 10.0	10.0									

Sample ID: LCS-R61481	SampType: LCS	TestCode: ALK	Units: mgCaCO3/L	Prep Date:	RunNo: 61481						
Client ID: LCSW	Batch ID: R61481	TestNo: SM2320 B		Analysis Date: 5/26/2017	SeqNo: 1514266						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Total (As CaCO3)	46.0	10.0	50.00	0	92.0	80	120				
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Sample ID: 17050891-001DDUP	SampType: DUP	TestCode: ALK	Units: mgCaCO3/L	Prep Date:	RunNo: 61481						
Client ID: ZZZZZ	Batch ID: R61481	TestNo: SM2320 B		Analysis Date: 5/26/2017	SeqNo: 1514268						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Bicarbonate (As CaCO3)	783	10.0						785.0	0.319	20	
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0						0	0	20	
Alkalinity, Total (As CaCO3)	783	10.0						785.0	0.319	20	

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6546
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61487

Sample ID: ACID	SampType: MBLK	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61487						
Client ID: PBW	Batch ID: R61487	TestNo: SW8021B		Analysis Date: 5/25/2017	SeqNo: 1514229						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	< 0.00500	0.00500									
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0525		0.05000		105	70	130				

Sample ID: BTEX LCS	SampType: LCS	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61487						
Client ID: LCSSW	Batch ID: R61487	TestNo: SW8021B		Analysis Date: 5/25/2017	SeqNo: 1514230						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	0.0511	0.00500	0.05000	0	102	72	120				
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0505		0.05000		101	70	130				

Sample ID: BTEX LCSD	SampType: LCSD	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61487						
Client ID: LCSS02	Batch ID: R61487	TestNo: SW8021B		Analysis Date: 5/25/2017	SeqNo: 1514231						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	0.0507	0.00500	0.05000	0	101	72	120	0.05110	0.786	20	
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0508		0.05000		102	70	130		0	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61490

Sample ID: ACID	SampType: MBLK	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61490						
Client ID: PBW	Batch ID: R61490	TestNo: SW8015B		Analysis Date: 5/25/2017	SeqNo: 1514256						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline Range)	< 0.150	0.150									
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0490		0.05000		98.0	70	130				

Sample ID: GAS LCS	SampType: LCS	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61490						
Client ID: LCSW	Batch ID: R61490	TestNo: SW8015B		Analysis Date: 5/25/2017	SeqNo: 1514257						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline Range)	11.8	0.150	12.50	0	94.4	80	130				
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Sample ID: GAS LCSD	SampType: LCSD	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61490						
Client ID: LCSS02	Batch ID: R61490	TestNo: SW8015B		Analysis Date: 5/25/2017	SeqNo: 1514258						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline Range)	12.0	0.150	12.50	0	96.3	80	130	11.81	1.97	20	
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Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61512

Sample ID: BTEX LCS	SampType: LCS	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61512						
Client ID: LCSW	Batch ID: R61512	TestNo: SW8021B	Analysis Date: 5/28/2017	SeqNo: 1515089							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.0526	0.00500	0.05000	0	105	72	120				
Ethylbenzene	0.0555	0.00500	0.05000	0	111	76	129				
Toluene	0.0524	0.0100	0.05000	0	105	78	120				
Xylenes, Total	0.166	0.0500	0.1500	0	111	75	125				
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0539		0.05000		108	70	130				

Sample ID: BTEX LCSD	SampType: LCSD	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61512						
Client ID: LCSS02	Batch ID: R61512	TestNo: SW8021B	Analysis Date: 5/28/2017	SeqNo: 1515090							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.0546	0.00500	0.05000	0	109	72	120	0.05260	3.73	20	
Ethylbenzene	0.0547	0.00500	0.05000	0	109	76	129	0.05550	1.45	20	
Toluene	0.0543	0.0100	0.05000	0	109	78	120	0.05240	3.56	20	
Xylenes, Total	0.168	0.0500	0.1500	0	112	75	125	0.1661	0.959	20	
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0542		0.05000		108	70	130		0	20	

Sample ID: MBLK ACID	SampType: MBLK	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61512						
Client ID: PBW	Batch ID: R61512	TestNo: SW8021B	Analysis Date: 5/28/2017	SeqNo: 1515091							
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: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61512

Sample ID: MBLK ACID	SampType: MBLK	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61512						
Client ID: PBW	Batch ID: R61512	TestNo: SW8021B		Analysis Date: 5/28/2017	SeqNo: 1515091						
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	0.0540		0.05000		108	70	130				

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61569

Sample ID: ACID	SampType: MBLK	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61569						
Client ID: PBW	Batch ID: R61569	TestNo: SW8021B	Analysis Date: 5/31/2017	SeqNo: 1516633							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	< 0.00500	0.00500									
Toluene	< 0.0100	0.0100									
Xylenes, Total	< 0.0500	0.0500									
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0564		0.05000		113	70	130				

Sample ID: BTEX LCS	SampType: LCS	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61569						
Client ID: LCSW	Batch ID: R61569	TestNo: SW8021B	Analysis Date: 5/30/2017	SeqNo: 1516634							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	0.0469	0.00500	0.05000	0	93.8	76	129				
Toluene	0.0503	0.0100	0.05000	0	101	78	120				
Xylenes, Total	0.145	0.0500	0.1500	0	96.8	75	125				
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0595		0.05000		119	70	130				

Sample ID: BTEX LCSD	SampType: LCSD	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61569						
Client ID: LCSS02	Batch ID: R61569	TestNo: SW8021B	Analysis Date: 5/30/2017	SeqNo: 1516635							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	0.0525	0.00500	0.05000	0	105	76	129	0.04690	11.3	20	
Toluene	0.0546	0.0100	0.05000	0	109	78	120	0.05030	8.20	20	
Xylenes, Total	0.163	0.0500	0.1500	0	109	75	125	0.1452	11.7	20	

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services

Project: Guidry 9326-012-0100

BatchID: R61569

Sample ID: BTEX LCSD	SampType: LCSD	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61569						
Client ID: LCSS02	Batch ID: R61569	TestNo: SW8021B	Analysis Date: 5/30/2017	SeqNo: 1516635							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0570		0.05000		114	70	130		0	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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QC SUMMARY REPORT

WO#: 17050962
 02-Jun-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61617

Sample ID: ACID	SampType: MBLK	TestCode: 8021_BTEX_	Units: %Rec	Prep Date:	RunNo: 61617						
Client ID: PBW	Batch ID: R61617	TestNo: SW8021B	Analysis Date: 6/1/2017	SeqNo: 1517736							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: alpha, alpha, alpha-Trifluorotoluene

0.0553 0.05000 111 70 130

Sample ID: BTEX LCS	SampType: LCS	TestCode: 8021_BTEX_	Units: %Rec	Prep Date:	RunNo: 61617						
Client ID: LCSW	Batch ID: R61617	TestNo: SW8021B	Analysis Date: 5/31/2017	SeqNo: 1517737							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: alpha, alpha, alpha-Trifluorotoluene

0.0517 0.05000 103 70 130

Sample ID: BTEX LCSD	SampType: LCSD	TestCode: 8021_BTEX_	Units: %Rec	Prep Date:	RunNo: 61617						
Client ID: LCSS02	Batch ID: R61617	TestNo: SW8021B	Analysis Date: 5/31/2017	SeqNo: 1517738							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: alpha, alpha, alpha-Trifluorotoluene

0.0522 0.05000 104 70 130 0 20

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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Sample Log-In Check List

Client Name: **ICON_ENV** Work Order Number: **17050962** RcptNo: **1**

Logged by:	Danielle Hollier	5/23/2017 3:45:00 PM	<i>Danielle Hollier</i>
Completed By:	Danielle Hollier	5/23/2017 4:17:00 PM	<i>Danielle Hollier</i>
Reviewed By:	Caitlin Duplantis	5/25/2017 11:01:56 AM	<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" value="Jason Sills"/>	Date:	<input type="text" value="5/25/2017"/>
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="Is Se needed for these samples? It was not reported for this site in the past."/>		
Client Instructions:	<input type="text" value="Se is not needed."/>		

18. Additional remarks:

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Not Present			



element™

Chain of Custody

Laboratory Number: **17050962**

Client Information:		Billing Information:		PO Number:	Project Name/Number:	Page of
Company Name: ICON Environmental					Guidry	Matrix Code
Contact Name: Jason Silb				Quote Number:	9326-012-0100	DW = Drinking Water
Address: 2049 Commercial Dr.				Sampler's Signature:		WW = Waste Water
City, State Zip: Port Allen, LA 70767		SAME		Required QC Level:	Standard	GW = Ground Water
Phone Number: (225) 344-8490		Ext:		Bill Monthly:	<input type="checkbox"/> Yes	AQ = Aqueous
Fax Number:				<input type="checkbox"/> No		OT = Other
E-mail Address:				Shipping Method:	UPS / FedEx / NOW	SL = Sludge SOL = Solid
					DHL / Element (Hand) / Mail	O = Oil SO = Soil
						F = Food SW = Swab
						NG = Natural Gas
						NGL = Natural Gas Liquid
						PW = Produced Water
						CF = Completion Fluid

Which Regulations Apply:	Turn Time	(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container		Pres.	Requested Tests						Comments				
			Quantity	Type P=Plastic, G=Glass, V=Vial		HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	BTEX/TPH-G	TPH-D/O	TPS/CI-	Cations	Anions		Total Metals			
<input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USDA/FDA <input type="checkbox"/> RECAP/RISC <input type="checkbox"/> Drinking Water <input type="checkbox"/> Distribution <input type="checkbox"/> Special <input type="checkbox"/> State <input type="checkbox"/> Other	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input checked="" type="checkbox"/> Other ASAP Please															
Collection Information			Date	Time	Grab / Composite	Matrix										
Sample ID/Description																
GC-20B			5-23-17	1030	G	GW	8	P,G,V	HCl, HNO ₃	X	X	X	X	X	X	Metals As, Ba, Cd, Cr, Pb, Fe, Mn, Se, Sr, Zn, Hg
GC-20A			5-23-17	1400	G	GW	8	P,G,V	HCl, HNO ₃	X	X	X	X	X	X	Cations Ca, Mg, K, Na
Trip Blank			5-23-17	-	-	AQ	3	G,V	HCl	X						Anions ALK. Carbonate ALK. Bicarbonate SO ₄

	Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
1		5/23/17/1545		5/23/17/1545	
2					Received at lab on ice? OH
3					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 1-8°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.

- 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
- 909 Executive Dr Warsaw, IN 46580-2368 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 574-273-5699
- 2417 W. Pinhook Rd Lafayette, LA 70508-3344 USA P 337-235-0483 F 337-233-6540



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

May 31, 2017

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

RE: Guidry 9326-012-0100

Order No.: 17051028

Dear Greg Miller:

Element Materials Technology Lafayette received 3 sample(s) on 5/24/2017 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. 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, appearing to read "Cristina Thibeaux", is written over a light blue horizontal line.

Cristina Thibeaux
Customer Service Supervisor
2417 W. Pinhook Road
Lafayette, LA 70508-3344



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
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Website: www.element.com

Case Narrative

WO#: 17051028
Date: 5/31/2017

CLIENT: ICON Environmental Services
Project: Guidry 9326-012-0100

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).



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

(consolidated)

WO#: 17051028

Date Reported 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/24/2017 9:15:00 AM
Project: Guidry 9326-012-0100
Lab ID: 17051028-001 **Matrix:** AQUEOUS
Client Sample ID GC-18A

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
TPH-D/O IN WATER BY SW8015					SW8015B	Analyst: CRM
TPH DRO/ORO IN WATER BY SW8015					SW3511	
TPH (Diesel Range)	1.58	0.127		mg/L	1	5/26/2017 9:07:00 PM
TPH (Oil Range)	0.406	0.118		mg/L	1	5/26/2017 9:07:00 PM
Surr: 4-Terphenyl-d14	74.0	51.4 - 146		%Rec	1	5/26/2017 9:07:00 PM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8015B	Analyst: KKD
TPH-GRO IN WATER BY SW8015						
TPH (Gasoline Range)	< 0.150	0.150		mg/L	1	5/30/2017 4:02:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	100	70 - 130		%Rec	1	5/30/2017 4:02:00 AM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8021B	Analyst: KKD
BTEX IN WATER BY SW8021						
Benzene	< 0.00500	0.00500		mg/L	1	5/30/2017 4:02:00 AM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	5/30/2017 4:02:00 AM
Toluene	< 0.0100	0.0100		mg/L	1	5/30/2017 4:02:00 AM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	5/30/2017 4:02:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	108	70 - 130		%Rec	1	5/30/2017 4:02:00 AM
METALS IN GROUND WATER					SW7470A	Analyst: MRM
MERCURY IN GROUND WATER, TOTAL						
Mercury	< 0.000200	0.000200		mg/L	1	5/26/2017 1:38:46 PM
INORGANIC ANIONS IN WATER BY IC					SW9056A	Analyst: SGP
Chloride	909	25.0		mg/L	100	5/26/2017 10:46:40 AM
Sulfate	9.03	1.25		mg/L	5	5/26/2017 11:00:23 AM
METALS IN GROUND WATER					SW6010B	Analyst: STS
METALS IN WATER BY ICP, TOTALS						
Arsenic	0.0283	0.0100		mg/L	1	5/26/2017 5:10:24 PM
Barium	0.0954	0.0100		mg/L	1	5/26/2017 5:10:24 PM
Cadmium	< 0.00500	0.00500		mg/L	1	5/26/2017 5:10:24 PM
Calcium	11.1	0.500		mg/L	1	5/26/2017 5:10:24 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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

Analytical Report

(consolidated)

WO#: 17051028

Date Reported 5/31/2017

CLIENT: ICON Environmental Services

Collection Date: 5/24/2017 9:15:00 AM

Project: Guidry 9326-012-0100

Lab ID: 17051028-001

Matrix: AQUEOUS

Client Sample ID GC-18A

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	
METALS IN GROUND WATER						SW6010B	Analyst: STS
METALS IN WATER BY ICP, TOTALS							
Chromium	< 0.0100	0.0100		mg/L	1	5/26/2017 5:10:24 PM	
Iron	0.511	0.0100		mg/L	1	5/26/2017 5:10:24 PM	
Lead	< 0.0100	0.0100		mg/L	1	5/26/2017 5:10:24 PM	
Magnesium	3.55	0.500		mg/L	1	5/26/2017 5:10:24 PM	
Manganese	0.178	0.0100		mg/L	1	5/26/2017 5:10:24 PM	
Potassium	< 5.00	5.00		mg/L	1	5/26/2017 5:10:24 PM	
Selenium	< 0.0200	0.0200		mg/L	1	5/26/2017 5:10:24 PM	
Sodium	962	5.00		mg/L	1	5/26/2017 5:10:24 PM	
Strontium	0.283	0.0100		mg/L	1	5/26/2017 5:10:24 PM	
Zinc	< 0.0100	0.0100		mg/L	1	5/26/2017 5:10:24 PM	
ALKALINITY; TOTAL, CARB, BICARB						SM2320 B	Analyst: TBB
Alkalinity, Bicarbonate (As CaCO3)	838	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM	
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM	
Alkalinity, Total (As CaCO3)	838	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM	
TOTAL DISSOLVED SOLIDS						SM2540C	Analyst: GMS
Total Dissolved Solids (Residue, Filterable)	2,420	100		mg/L	5	5/26/2017 7:36:00 AM	

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(consolidated)

WO#: 17051028

Date Reported 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/24/2017 11:15:00 AM
Project: Guidry 9326-012-0100
Lab ID: 17051028-002 **Matrix:** AQUEOUS
Client Sample ID GC-18B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
TPH-D/O IN WATER BY SW8015					SW8015B	Analyst: CRM
TPH DRO/ORO IN WATER BY SW8015					SW3511	
TPH (Diesel Range)	0.560	0.129		mg/L	1	5/26/2017 9:38:00 PM
TPH (Oil Range)	0.164	0.119		mg/L	1	5/26/2017 9:38:00 PM
Surr: 4-Terphenyl-d14	57.6	51.4 - 146		%Rec	1	5/26/2017 9:38:00 PM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8015B	Analyst: KKD
TPH-GRO IN WATER BY SW8015						
TPH (Gasoline Range)	< 0.150	0.150		mg/L	1	5/30/2017 4:29:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	98.8	70 - 130		%Rec	1	5/30/2017 4:29:00 AM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8021B	Analyst: KKD
BTEX IN WATER BY SW8021						
Benzene	< 0.00500	0.00500		mg/L	1	5/30/2017 4:29:00 AM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	5/30/2017 4:29:00 AM
Toluene	< 0.0100	0.0100		mg/L	1	5/30/2017 4:29:00 AM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	5/30/2017 4:29:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	106	70 - 130		%Rec	1	5/30/2017 4:29:00 AM
METALS IN GROUND WATER					SW7470A	Analyst: MRM
MERCURY IN GROUND WATER, TOTAL						
Mercury	< 0.000200	0.000200		mg/L	1	5/26/2017 1:41:08 PM
INORGANIC ANIONS IN WATER BY IC					SW9056A	Analyst: SGP
Chloride	455	12.5		mg/L	50	5/25/2017 3:07:46 PM
Sulfate	6.00	0.500		mg/L	2	5/25/2017 5:38:46 PM
METALS IN GROUND WATER					SW6010B	Analyst: STS
METALS IN WATER BY ICP, TOTALS						
Arsenic	0.0150	0.0100		mg/L	1	5/26/2017 5:28:39 PM
Barium	0.0778	0.0100		mg/L	1	5/26/2017 5:28:39 PM
Cadmium	< 0.00500	0.00500		mg/L	1	5/26/2017 5:28:39 PM
Calcium	7.29	0.500		mg/L	1	5/26/2017 5:28:39 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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 Website: www.element.com

Analytical Report

(consolidated)

WO#: 17051028

Date Reported 5/31/2017

CLIENT: ICON Environmental Services

Collection Date: 5/24/2017 11:15:00 AM

Project: Guidry 9326-012-0100

Lab ID: 17051028-002

Matrix: AQUEOUS

Client Sample ID GC-18B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS IN GROUND WATER					SW6010B	Analyst: STS
METALS IN WATER BY ICP, TOTALS						
Chromium	< 0.0100	0.0100		mg/L	1	5/26/2017 5:28:39 PM
Iron	1.33	0.0100		mg/L	1	5/26/2017 5:28:39 PM
Lead	< 0.0100	0.0100		mg/L	1	5/26/2017 5:28:39 PM
Magnesium	2.16	0.500		mg/L	1	5/26/2017 5:28:39 PM
Manganese	0.122	0.0100		mg/L	1	5/26/2017 5:28:39 PM
Potassium	< 5.00	5.00		mg/L	1	5/26/2017 5:28:39 PM
Selenium	< 0.0200	0.0200		mg/L	1	5/26/2017 5:28:39 PM
Sodium	528	5.00		mg/L	1	5/26/2017 5:28:39 PM
Strontium	0.146	0.0100		mg/L	1	5/26/2017 5:28:39 PM
Zinc	< 0.0100	0.0100		mg/L	1	5/26/2017 5:28:39 PM
ALKALINITY; TOTAL, CARB, BICARB					SM2320 B	Analyst: TBB
Alkalinity, Bicarbonate (As CaCO3)	580	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Total (As CaCO3)	580	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
TOTAL DISSOLVED SOLIDS					SM2540C	Analyst: GMS
Total Dissolved Solids (Residue, Filterable)	1,300	100		mg/L	5	5/26/2017 7:36:00 AM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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

Analytical Report

(consolidated)

WO#: 17051028

Date Reported 5/31/2017

CLIENT: ICON Environmental Services

Collection Date: 5/24/2017 2:05:00 PM

Project: Guidry 9326-012-0100

Lab ID: 17051028-003

Matrix: AQUEOUS

Client Sample ID GC-25A

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
TPH-D/O IN WATER BY SW8015					SW8015B	Analyst: CRM
TPH DRO/ORO IN WATER BY SW8015					SW3511	
TPH (Diesel Range)	2.63	0.128		mg/L	1	5/26/2017 10:10:00 PM
TPH (Oil Range)	0.369	0.118		mg/L	1	5/26/2017 10:10:00 PM
Surr: 4-Terphenyl-d14	69.7	51.4 - 146		%Rec	1	5/26/2017 10:10:00 PM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8015B	Analyst: KKD
TPH-GRO IN WATER BY SW8015						
TPH (Gasoline Range)	< 0.150	0.150		mg/L	1	5/30/2017 4:56:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	101	70 - 130		%Rec	1	5/30/2017 4:56:00 AM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8021B	Analyst: KKD
BTEX IN WATER BY SW8021						
Benzene	0.0196	0.00500		mg/L	1	5/30/2017 4:56:00 AM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	5/30/2017 4:56:00 AM
Toluene	< 0.0100	0.0100		mg/L	1	5/30/2017 4:56:00 AM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	5/30/2017 4:56:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	82.8	70 - 130		%Rec	1	5/30/2017 4:56:00 AM
METALS IN GROUND WATER					SW7470A	Analyst: MRM
MERCURY IN GROUND WATER, TOTAL						
Mercury	< 0.000200	0.000200		mg/L	1	5/26/2017 1:43:28 PM
INORGANIC ANIONS IN WATER BY IC					SW9056A	Analyst: SGP
Chloride	56,800	1,250		mg/L	5000	5/25/2017 3:21:29 PM
Sulfate	< 50.0	50.0		mg/L	200	5/25/2017 5:52:29 PM
METALS IN GROUND WATER					SW6010B	Analyst: STS
METALS IN WATER BY ICP, TOTALS						
Arsenic	0.115	0.100		mg/L	10	5/26/2017 5:42:49 PM
Barium	50.5	0.100		mg/L	10	5/26/2017 5:42:49 PM
Cadmium	< 0.0500	0.0500		mg/L	10	5/26/2017 5:42:49 PM
Calcium	2,160	5.00		mg/L	10	5/26/2017 5:42:49 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
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 TEL: (337) 235-0483 FAX: (337) 233-6540
 Website: www.element.com

Analytical Report

(consolidated)

WO#: 17051028

Date Reported 5/31/2017

CLIENT: ICON Environmental Services

Collection Date: 5/24/2017 2:05:00 PM

Project: Guidry 9326-012-0100

Lab ID: 17051028-003

Matrix: AQUEOUS

Client Sample ID GC-25A

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS IN GROUND WATER					SW6010B	Analyst: STS
METALS IN WATER BY ICP, TOTALS						
Chromium	< 0.100	0.100		mg/L	10	5/26/2017 5:42:49 PM
Iron	2.16	0.100		mg/L	10	5/26/2017 5:42:49 PM
Lead	< 0.100	0.100		mg/L	10	5/26/2017 5:42:49 PM
Magnesium	621	5.00		mg/L	10	5/26/2017 5:42:49 PM
Manganese	53.7	1.00		mg/L	100	5/26/2017 5:37:57 PM
Potassium	114	50.0		mg/L	10	5/26/2017 5:42:49 PM
Selenium	< 0.200	0.200		mg/L	10	5/26/2017 5:42:49 PM
Sodium	30,400	5,000		mg/L	1000	5/26/2017 5:33:29 PM
Strontium	104	1.00		mg/L	100	5/26/2017 5:37:57 PM
Zinc	< 0.100	0.100		mg/L	10	5/26/2017 5:42:49 PM
ALKALINITY; TOTAL, CARB, BICARB					SM2320 B	Analyst: TBB
Alkalinity, Bicarbonate (As CaCO3)	265	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Total (As CaCO3)	265	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
TOTAL DISSOLVED SOLIDS					SM2540C	Analyst: GMS
Total Dissolved Solids (Residue, Filterable)	93,400	4,000		mg/L	200	5/26/2017 7:36:00 AM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17051028

31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23242

Sample ID: MB-23242	SampType: MBLK	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: PBW	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/26/2017	SeqNo: 1515298						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	< 0.130	0.130									
TPH (Oil Range)	< 0.120	0.120									
Surr: 4-Terphenyl-d14	0.0462		0.05734		80.5	51.4	146				

Sample ID: 17050891-003BDUP	SampType: DUP	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: ZZZZZ	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515302						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	0.189	0.130						0.1651	13.5	0
TPH (Oil Range)	< 0.120	0.120						0	0	0
Surr: 4-Terphenyl-d14	0.0376		0.05735		65.6	51.4	146		0	0

Sample ID: 17050891-003BMS-D	SampType: MS	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: ZZZZZ	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515303						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	1.87	0.131	1.722	0.1651	98.8	70	130			
Surr: 4-Terphenyl-d14	0.0416		0.05740		72.5	51.4	146			

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
 Website: www.element.com

QC SUMMARY REPORT

WO#: 17051028

31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23242

Sample ID: 17050891-003BMS-M	SampType: MS	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: ZZZZZ	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515310						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	2.08	0.120	1.719	0.04809	118	70	130				
Surr: 4-Terphenyl-d14	0.0529		0.05730		92.2	51.4	146				

Sample ID: 17050891-003BMDS-	SampType: MSD	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: ZZZZZ	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515311						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	1.80	0.120	1.713	0.04809	102	70	130	2.082	14.3	36.4
Surr: 4-Terphenyl-d14	0.0340		0.05709		59.5	51.4	146		0	40

Sample ID: LCS-D-23242	SampType: LCS	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: LCSW	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515312						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	2.19	0.131	1.724	0	127	70	130			
Surr: 4-Terphenyl-d14	0.0649		0.05745		113	51.4	146			

Sample ID: LCSD-D-23242	SampType: LCSD	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: LCSS02	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515313						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	2.10	0.131	1.721	0	122	70	130	2.192	4.27	14.1
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Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051028

31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23242

Sample ID: LCSD-D-23242	SampType: LCSD	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: LCSS02	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515313						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 4-Terphenyl-d14	0.0615		0.05737		107	51.4	146		0	40	
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Sample ID: LCSD-M-23242	SampType: LCSD	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: LCSS02	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515314						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	2.21	0.121	1.727	0	128	70	130	2.212	0	23.2	
Surr: 4-Terphenyl-d14	0.0694		0.05755		121	51.4	146		0	40	

Sample ID: LCS-M-23242	SampType: LCS	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/24/2017	RunNo: 61529						
Client ID: LCSW	Batch ID: 23242	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515315						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Oil Range)	2.09	0.120	1.720	0	122	70	130				
Surr: 4-Terphenyl-d14	0.0658		0.05734		115	51.4	146				

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051028

31-May-17

Client: ICON Environmental Services

Project: Guidry 9326-012-0100

BatchID: 23252

Sample ID: MB-23252	SampType: MBLK	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508
Client ID: PBW	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514965

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	< 0.0100	0.0100									
Barium	< 0.0100	0.0100									
Cadmium	< 0.00500	0.00500									
Calcium	< 0.500	0.500									
Chromium	< 0.0100	0.0100									
Iron	< 0.0100	0.0100									
Lead	< 0.0100	0.0100									
Magnesium	< 0.500	0.500									
Manganese	< 0.0100	0.0100									
Potassium	< 5.00	5.00									
Selenium	< 0.0200	0.0200									
Sodium	< 10.0	10.0									
Strontium	< 0.0100	0.0100									
Zinc	< 0.0100	0.0100									

Sample ID: LCS-23252	SampType: LCS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508
Client ID: LCSW	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514966

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.511	0.0100	0.5000	0	102	80	120				
Barium	0.506	0.0100	0.5000	0	101	80	120				
Cadmium	0.503	0.00500	0.5000	0	101	80	120				
Calcium	50.5	0.500	50.00	0	101	80	120				
Chromium	0.506	0.0100	0.5000	0	101	80	120				
Iron	0.509	0.0100	0.5000	0	102	80	120				

Qualifiers:
 H Holding times for preparation or analysis exceeded
 RL Reporting Limit
 U Analyte not detected

M Matrix Interference
 S Spike Recovery outside accepted recovery limits
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit
 SDL Sample detection limit



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051028
 31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23252

Sample ID: LCSD-23252	SampType: LCS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: LCSSW	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514966						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.508	0.0100	0.5000	0	102	80	120				
Magnesium	51.0	0.500	50.00	0	102	80	120				
Manganese	0.504	0.0100	0.5000	0	101	80	120				
Potassium	50.1	5.00	50.00	0	100	80	120				
Selenium	0.511	0.0200	0.5000	0	102	80	120				
Sodium	50.3	10.0	50.00	0	101	80	120				
Strontium	0.508	0.0100	0.5000	0	102	80	120				
Zinc	0.507	0.0100	0.5000	0	101	80	120				

Sample ID: LCSD-23252	SampType: LCSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: LCSS02	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514967						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.510	0.0100	0.5000	0	102	80	120	0.5108	0.118	20	
Barium	0.509	0.0100	0.5000	0	102	80	120	0.5057	0.591	20	
Cadmium	0.505	0.00500	0.5000	0	101	80	120	0.5028	0.377	20	
Calcium	50.3	0.500	50.00	0	101	80	120	50.54	0.436	20	
Chromium	0.509	0.0100	0.5000	0	102	80	120	0.5057	0.572	20	
Iron	0.513	0.0100	0.5000	0	103	80	120	0.5087	0.764	20	
Lead	0.510	0.0100	0.5000	0	102	80	120	0.5077	0.530	20	
Magnesium	50.8	0.500	50.00	0	102	80	120	50.96	0.393	20	
Manganese	0.506	0.0100	0.5000	0	101	80	120	0.5039	0.475	20	
Potassium	49.8	5.00	50.00	0	99.6	80	120	50.14	0.640	20	
Selenium	0.514	0.0200	0.5000	0	103	80	120	0.5114	0.527	20	
Sodium	49.2	10.0	50.00	0	98.4	80	120	50.34	2.29	20	

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051028

31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23252

Sample ID: LCSD-23252	SampType: LCSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: LCSS02	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514967						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Strontium	0.507	0.0100	0.5000	0	101	80	120	0.5076	0.118	20	
Zinc	0.509	0.0100	0.5000	0	102	80	120	0.5066	0.532	20	

Sample ID: 17050962-001DMS	SampType: MS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: ZZZZZZ	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514971						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	0.565	0.0100	0.5000	0	113	75	125				
Cadmium	0.527	0.00500	0.5000	0	105	75	125				
Chromium	0.499	0.0100	0.5000	0.003000	99.1	75	125				
Lead	0.464	0.0100	0.5000	0	92.8	75	125				
Potassium	82.8	5.00	50.00	16.60	132	75	125				S
Selenium	0.539	0.0200	0.5000	0.02050	104	75	125				
Zinc	0.537	0.0100	0.5000	0	107	75	125				

Sample ID: 17050962-001DMSD	SampType: MSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: ZZZZZZ	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514972						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	0.554	0.0100	0.5000	0	111	75	125	0.5646	1.97	20	
Cadmium	0.507	0.00500	0.5000	0	101	75	125	0.5270	3.85	20	
Chromium	0.478	0.0100	0.5000	0.003000	95.1	75	125	0.4986	4.16	20	
Lead	0.447	0.0100	0.5000	0	89.5	75	125	0.4638	3.60	20	

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051028

31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23252

Sample ID: 17050962-001DMSD	SampType: MSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508
Client ID: ZZZZZZ	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514972

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	82.2	5.00	50.00	16.60	131	75	125	82.78	0.691	20	S
Selenium	0.515	0.0200	0.5000	0.02050	98.9	75	125	0.5389	4.55	20	
Zinc	0.513	0.0100	0.5000	0	103	75	125	0.5369	4.61	20	

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

Sample ID: 17050962-001DMS	SampType: MS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508
Client ID: ZZZZZZ	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514974

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	8.09	0.100	0.5000	7.611	95.2	75	125				
Calcium	612	5.00	50.00	560.9	103	75	125				
Magnesium	239	5.00	50.00	188.5	101	75	125				
Manganese	5.98	0.100	0.5000	5.391	118	75	125				

Sample ID: 17050962-001DMSD	SampType: MSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508
Client ID: ZZZZZZ	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514979

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	7.74	0.100	0.5000	7.611	25.4	75	125	8.087	4.41	20	S
Calcium	599	5.00	50.00	560.9	77.0	75	125	612.5	2.16	20	
Magnesium	235	5.00	50.00	188.5	92.6	75	125	239.2	1.86	20	
Manganese	5.67	0.100	0.5000	5.391	55.8	75	125	5.981	5.34	20	S

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
 Website: www.element.com

QC SUMMARY REPORT

WO#: 17051028

31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23252

Sample ID: 17050962-001DMSD	SampType: MSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: ZZZZZZ	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514979						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

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: 17050962-001DMS	SampType: MS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: ZZZZZZ	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514983						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	15.5	1.00	0.5000	12.44	608	75	125				S
Sodium	6,540	1,000	50.00	6,478	126	75	125				S
Strontium	13.8	1.00	0.5000	13.58	42.0	75	125				S

Sample ID: 17050962-001DMSD	SampType: MSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/25/2017	RunNo: 61508						
Client ID: ZZZZZZ	Batch ID: 23252	TestNo: SW6010B		Analysis Date: 5/26/2017	SeqNo: 1514984						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	13.6	1.00	0.5000	12.44	240	75	125	15.48	12.6	20	S
Sodium	6,330	1,000	50.00	6,478	-302	75	125	6,541	3.33	20	S
Strontium	13.8	1.00	0.5000	13.58	46.0	75	125	13.79	0.145	20	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).

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17051028

31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23278

Sample ID: MB-23278	SampType: MBLK	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504
Client ID: PBW	Batch ID: 23278	TestNo: SW7470A	Analysis Date: 5/26/2017	SeqNo: 1514765	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	< 0.000200	0.000200			

Sample ID: LCS-23278	SampType: LCS	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504
Client ID: LCSW	Batch ID: 23278	TestNo: SW7470A	Analysis Date: 5/26/2017	SeqNo: 1514768	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.0100	0.000200	0.01000	0	100 80 120

Sample ID: LCSD-23278	SampType: LCSD	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504
Client ID: LCSS02	Batch ID: 23278	TestNo: SW7470A	Analysis Date: 5/26/2017	SeqNo: 1514769	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.0100	0.000200	0.01000	0	100 80 120 0.01004 0.329 20

Sample ID: 17050962-002DMS	SampType: MS	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504
Client ID: ZZZZZZ	Batch ID: 23278	TestNo: SW7470A	Analysis Date: 5/26/2017	SeqNo: 1514771	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.00413	0.000200	0.01000	0	41.3 75 125 S

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051028

31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: 23278

Sample ID: 17050962-002DMSD	SampType: MSD	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504						
Client ID: ZZZZZZ	Batch ID: 23278	TestNo: SW7470A		Analysis Date: 5/26/2017	SeqNo: 1514772						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00430	0.000200	0.01000	0	43.0	75	125	0.004131	4.02	20	S

Sample ID: 17050962-002DPDS	SampType: PDS	TestCode: HG_W_7470A	Units: mg/L	Prep Date:	RunNo: 61504						
Client ID: ZZZZZZ	Batch ID: 23278	TestNo: SW7470A		Analysis Date: 5/26/2017	SeqNo: 1514806						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00608	0.000200	0.0152	0	40.0	80	120				S

Sample ID: 17050962-002DPDSD	SampType: PSD	TestCode: HG_W_7470A	Units: mg/L	Prep Date:	RunNo: 61504						
Client ID: ZZZZZZ	Batch ID: 23278	TestNo: SW7470A		Analysis Date: 5/26/2017	SeqNo: 1514809						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00613	0.000200	0.01520	0	40.3	80	120	0.006078	0.788	20	S

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

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17051028

31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61440

Sample ID: mblk	SampType: MBLK	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61440						
Client ID: PBW	Batch ID: R61440	TestNo: SW9056A		Analysis Date: 5/25/2017	SeqNo: 1514408						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	< 0.250	0.250									
Sulfate	< 0.250	0.250									

Sample ID: lcs	SampType: LCS	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61440						
Client ID: LCSW	Batch ID: R61440	TestNo: SW9056A		Analysis Date: 5/25/2017	SeqNo: 1514409						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	9.87	0.250	10.00	0	98.7	80	120				
Sulfate	10.1	0.250	10.00	0	101	80	120				

Sample ID: lcsd	SampType: LCSD	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61440						
Client ID: LCSS02	Batch ID: R61440	TestNo: SW9056A		Analysis Date: 5/25/2017	SeqNo: 1514410						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	9.76	0.250	10.00	0	97.6	80	120	9.869	1.10	15	
Sulfate	9.87	0.250	10.00	0	98.7	80	120	10.11	2.46	15	

Sample ID: 17051028-003cms	SampType: MS	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61440						
Client ID: GC-25A	Batch ID: R61440	TestNo: SW9056A		Analysis Date: 5/25/2017	SeqNo: 1514414						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	81,400	1,250	25,000	56,820	98.2	80	120				
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Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051028
 31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61440

Sample ID: 17051028-003cms	SampType: MS	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61440						
Client ID: GC-25A	Batch ID: R61440	TestNo: SW9056A		Analysis Date: 5/25/2017	SeqNo: 1514414						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate	24,400	1,250	25,000	0	97.7	80	120				
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Sample ID: 17051028-003cmsd	SampType: MSD	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61440						
Client ID: GC-25A	Batch ID: R61440	TestNo: SW9056A		Analysis Date: 5/25/2017	SeqNo: 1514415						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	81,100	1,250	25,000	56,820	97.1	80	120	81,380	0.341	15	
Sulfate	24,200	1,250	25,000	0	96.7	80	120	24,440	1.04	15	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17051028

31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61469

Sample ID: MB-R61469	SampType: MBLK	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61469
Client ID: PBW	Batch ID: R61469	TestNo: SM2540C		Analysis Date: 5/26/2017	SeqNo: 1515968
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Total Dissolved Solids (Residue, Filterable) < 20.0 20.0

Sample ID: LCS-R61469	SampType: LCS	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61469
Client ID: LCSW	Batch ID: R61469	TestNo: SM2540C		Analysis Date: 5/26/2017	SeqNo: 1515969
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Total Dissolved Solids (Residue, Filterable) 980 20.0 1,000 0 98.0 85 115

Sample ID: LCSD-R61469	SampType: LCSD	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61469
Client ID: LCSS02	Batch ID: R61469	TestNo: SM2540C		Analysis Date: 5/26/2017	SeqNo: 1515970
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Total Dissolved Solids (Residue, Filterable) 981 20.0 1,000 0 98.1 85 115 980.0 0.102 10

Sample ID: 17050796-001BDUP	SampType: DUP	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61469
Client ID: ZZZZZZ	Batch ID: R61469	TestNo: SM2540C		Analysis Date: 5/26/2017	SeqNo: 1515972
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Total Dissolved Solids (Residue, Filterable) 27,300 2,000 26,300 3.73 10 H

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051028
 31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61469

Sample ID: 17050796-001BDUP	SampType: DUP	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61469						
Client ID: ZZZZZZ	Batch ID: R61469	TestNo: SM2540C		Analysis Date: 5/26/2017	SeqNo: 1515972						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 17051028-001CDUP	SampType: DUP	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61469						
Client ID: GC-18A	Batch ID: R61469	TestNo: SM2540C		Analysis Date: 5/26/2017	SeqNo: 1515976						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filterable)	2,380	100						2,420	1.88	10	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17051028
 31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61481

Sample ID: MB-R61481	SampType: MBLK	TestCode: ALK	Units: mgCaCO3/L	Prep Date:	RunNo: 61481						
Client ID: PBW	Batch ID: R61481	TestNo: SM2320 B		Analysis Date: 5/26/2017	SeqNo: 1514266						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Bicarbonate (As CaCO3)	< 10.0	10.0									
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0									
Alkalinity, Total (As CaCO3)	< 10.0	10.0									

Sample ID: LCS-R61481	SampType: LCS	TestCode: ALK	Units: mgCaCO3/L	Prep Date:	RunNo: 61481						
Client ID: LCSW	Batch ID: R61481	TestNo: SM2320 B		Analysis Date: 5/26/2017	SeqNo: 1514266						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Total (As CaCO3)	46.0	10.0	50.00	0	92.0	80	120				
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Sample ID: 17050891-001DDUP	SampType: DUP	TestCode: ALK	Units: mgCaCO3/L	Prep Date:	RunNo: 61481						
Client ID: ZZZZZ	Batch ID: R61481	TestNo: SM2320 B		Analysis Date: 5/26/2017	SeqNo: 1514268						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Bicarbonate (As CaCO3)	783	10.0						785.0	0.319	20	
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0						0	0	20	
Alkalinity, Total (As CaCO3)	783	10.0						785.0	0.319	20	

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17051028

31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61537

Sample ID: ACID	SampType: MBLK	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61537						
Client ID: PBW	Batch ID: R61537	TestNo: SW8021B	Analysis Date: 5/30/2017	SeqNo: 1515548							
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									
Toluene	< 0.0100	0.0100									
Xylenes, Total	< 0.0500	0.0500									
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0549		0.05000		110	70	130				

Sample ID: BTEX LCS	SampType: LCS	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61537						
Client ID: LCSW	Batch ID: R61537	TestNo: SW8021B	Analysis Date: 5/30/2017	SeqNo: 1515549							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.0512	0.00500	0.05000	0	102	72	120				
Ethylbenzene	0.0497	0.00500	0.05000	0	99.4	76	129				
Toluene	0.0505	0.0100	0.05000	0	101	78	120				
Xylenes, Total	0.152	0.0500	0.1500	0	101	75	125				
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0550		0.05000		110	70	130				

Sample ID: BTEX LCSD	SampType: LCSD	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61537						
Client ID: LCSS02	Batch ID: R61537	TestNo: SW8021B	Analysis Date: 5/30/2017	SeqNo: 1515550							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.0492	0.00500	0.05000	0	98.4	72	120	0.05120	3.98	20	
Ethylbenzene	0.0474	0.00500	0.05000	0	94.8	76	129	0.04970	4.74	20	

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051028
 31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61537

Sample ID: BTEX LCSD	SampType: LCSD	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61537						
Client ID: LCSS02	Batch ID: R61537	TestNo: SW8021B	Analysis Date: 5/30/2017	SeqNo: 1515550							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	0.0484	0.0100	0.05000	0	96.8	78	120	0.05050	4.25	20	
Xylenes, Total	0.148	0.0500	0.1500	0	98.4	75	125	0.1515	2.61	20	
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0544		0.05000		109	70	130		0	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051028

31-May-17

Client: ICON Environmental Services
Project: Guidry 9326-012-0100

BatchID: R61538

Sample ID: ACID	SampType: MBLK	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61538						
Client ID: PBW	Batch ID: R61538	TestNo: SW8015B		Analysis Date: 5/30/2017	SeqNo: 1515557						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline Range)	< 0.150	0.150									
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0514		0.05000		103	70	130				

Sample ID: GAS LCS	SampType: LCS	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61538						
Client ID: LCSW	Batch ID: R61538	TestNo: SW8015B		Analysis Date: 5/30/2017	SeqNo: 1515558						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline Range)	11.4	0.150	12.50	0	91.3	80	130				
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Sample ID: GAS LCSD	SampType: LCSD	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61538						
Client ID: LCSS02	Batch ID: R61538	TestNo: SW8015B		Analysis Date: 5/30/2017	SeqNo: 1515559						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline Range)	12.1	0.150	12.50	0	96.9	80	130	11.41	5.95	20	
----------------------	------	-------	-------	---	------	----	-----	-------	------	----	--

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 Lafayette, LA 70508-3344
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 Website: www.element.com

Sample Log-In Check List

Client Name: **ICON_ENV**

Work Order Number: **17051028**

RcptNo: **1**

Logged by:	Danielle Hollier	5/24/2017 3:30:00 PM	<i>Danielle Hollier</i>
Completed By:	Danielle Hollier	5/24/2017 3:39:34 PM	<i>Danielle Hollier</i>
Reviewed By:	Caitlin Duplantis	5/24/2017 4:00:23 PM	<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	4.3	Good	Not Present			



element™

Chain of Custody

Laboratory Number:

17051028

Client Information:	Billing Information:	PO Number:	Project Name/Number:	Page 1 of 1
Company Name: ICON Environmental			Guidry	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
Contact Name: Jason Sills		Quote Number: 9326-012-0100	Sampler's Signature:	
Address: 2049 Commercial Dr.		Required QC Level: Standard	Shipping Method: Hand / Mail	
City, State Zip: Port Allen, LA 70767	SAME	Bill Monthly: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	UPS / FedEx / NOW	
Phone Number: (225) 344-8490			DHL / Element / Hand / Mail	

Which Regulations Apply:	Turn Time	(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container		Pres.	Requested Tests							Comments	
			Quantity	Type P=Plastic, G=Glass, V=Vial		HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	BTEX/TPH-G	TPH-D/O	TPS/Ci-	Cations	Anions	Total Metals		
<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	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input checked="" type="checkbox"/> Other ASAP please													
Sample ID/Description	Date	Time	Grab / Composite	Matrix	Quantity	Type	Pres.	BTEX/TPH-G	TPH-D/O	TPS/Ci-	Cations	Anions	Total Metals	
GL-18A	5-24-17	0915	G	GW	8	P, G, V	HCl, HNO ₃	X	X	X	X	X	X	Metals As, Ba, Cd, Cr, Pb, Fe, Mn, Se, Sr, Zn, Hg
GL-18B	5-24-17	1115	G	GW	8	↓	↓	X	X	X	X	X	X	Cations Ca, Mg, K, Na
GL-25A	5-24-17	1405	G	GW	8	↓	↓	X	X	X	X	X	X	Anions Alk. Carbonate Alk Bicarbonate SO ₄

	Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
1		5-24-17/1530		5-24-17/1530	
2					Received at lab on ice? OH
3					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 4.32

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 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 574-269-6569

3371 Cleveland Road, Suite 100A
South Bend, IN
46628-9780 USA
P 574-277-0707
F 574-273-5699

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



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
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May 31, 2017

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

RE: Guidry//9326-012-0100

Order No.: 17051063

Dear Greg Miller:

Element Materials Technology Lafayette received 4 sample(s) on 5/25/2017 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. 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 "Cristina Thibeaux".

Cristina Thibeaux
Customer Service Supervisor
2417 W. Pinhook Road
Lafayette, LA 70508-3344



Element Materials Technology Lafayette
2417 W. Pinhook Road
Lafayette, LA 70508-3344
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Website: www.element.com

Case Narrative

WO#: 17051063
Date: 5/31/2017

CLIENT: ICON Environmental Services
Project: Guidry//9326-012-0100

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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 Lafayette, LA 70508-3344
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Analytical Report

(consolidated)

WO#: 17051063

Date Reported 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/25/2017 11:45:00 AM
Project: Guidry//9326-012-0100
Lab ID: 17051063-001 **Matrix:** GROUNDWATER
Client Sample ID GC-25 C

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
TPH-D/O IN WATER BY SW8015					SW8015B	Analyst: CRM
TPH DRO/ORO IN WATER BY SW8015					SW3511	
TPH (Diesel Range)	0.135	0.126		mg/L	1	5/27/2017 9:59:00 AM
TPH (Oil Range)	0.135	0.117		mg/L	1	5/27/2017 9:59:00 AM
Surr: 4-Terphenyl-d14	72.5	51.4 - 146		%Rec	1	5/27/2017 9:59:00 AM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8015B	Analyst: KKD
TPH-GRO IN WATER BY SW8015						
TPH (Gasoline Range)	< 0.150	0.150		mg/L	1	5/31/2017 1:29:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	101	70 - 130		%Rec	1	5/31/2017 1:29:00 AM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8021B	Analyst: KKD
BTEX IN WATER BY SW8021						
Benzene	< 0.00500	0.00500		mg/L	1	5/31/2017 1:29:00 AM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	5/31/2017 1:29:00 AM
Toluene	< 0.0100	0.0100		mg/L	1	5/31/2017 1:29:00 AM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	5/31/2017 1:29:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	112	70 - 130		%Rec	1	5/31/2017 1:29:00 AM
MERCURY IN GROUND WATER, TOTAL					SW7470A	Analyst: MRM
Mercury	< 0.000200	0.000200		mg/L	1	5/26/2017 1:45:48 PM
INORGANIC ANIONS IN WATER BY IC					SW9056A	Analyst: SGP
Chloride	499	12.5		mg/L	50	5/30/2017 10:59:37 AM
Sulfate	< 0.500	0.500		mg/L	2	5/30/2017 1:16:53 PM
METALS IN WATER BY ICP, TOTALS					SW6010B	Analyst: STS
Arsenic	< 0.0100	0.0100		mg/L	1	5/30/2017 8:16:14 PM
Barium	1.18	0.100		mg/L	10	5/30/2017 8:20:18 PM
Cadmium	< 0.00500	0.00500		mg/L	1	5/30/2017 8:16:14 PM
Calcium	172	5.00		mg/L	10	5/30/2017 8:20:18 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
 Website: www.element.com

Analytical Report

(consolidated)

WO#: 17051063

Date Reported 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/25/2017 11:45:00 AM
Project: Guidry//9326-012-0100
Lab ID: 17051063-001 **Matrix:** GROUNDWATER
Client Sample ID GC-25 C

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS IN WATER BY ICP, TOTALS			SW6010B		Analyst: STS	
Chromium	< 0.0100	0.0100		mg/L	1	5/30/2017 8:16:14 PM
Iron	6.40	0.100		mg/L	10	5/30/2017 8:20:18 PM
Lead	< 0.0100	0.0100		mg/L	1	5/30/2017 8:16:14 PM
Magnesium	54.6	0.500		mg/L	1	5/30/2017 8:16:14 PM
Manganese	0.929	0.0100		mg/L	1	5/30/2017 8:16:14 PM
Potassium	< 5.00	5.00		mg/L	1	5/30/2017 8:16:14 PM
Selenium	< 0.0200	0.0200		mg/L	1	5/30/2017 8:16:14 PM
Sodium	213	100		mg/L	10	5/30/2017 8:20:18 PM
Strontium	1.53	0.100		mg/L	10	5/30/2017 8:20:18 PM
Zinc	0.0186	0.0100		mg/L	1	5/30/2017 8:16:14 PM
ALKALINITY; TOTAL, CARB, BICARB			SM2320 B		Analyst: TBB	
Alkalinity, Bicarbonate (As CaCO3)	383	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Total (As CaCO3)	383	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
TOTAL DISSOLVED SOLIDS			SM2540C		Analyst: GMS	
Total Dissolved Solids (Residue, Filterable)	1,240	100		mg/L	5	5/26/2017 7:36:00 AM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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Analytical Report

(consolidated)

WO#: 17051063

Date Reported 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/25/2017 2:55:00 PM
Project: Guidry//9326-012-0100
Lab ID: 17051063-002 **Matrix:** GROUNDWATER
Client Sample ID GC-25 B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
TPH-D/O IN WATER BY SW8015					SW8015B	Analyst: CRM
TPH DRO/ORO IN WATER BY SW8015					SW3511	
TPH (Diesel Range)	0.158	0.128		mg/L	1	5/27/2017 10:30:00 AM
TPH (Oil Range)	< 0.119	0.119		mg/L	1	5/27/2017 10:30:00 AM
Surr: 4-Terphenyl-d14	75.4	51.4 - 146		%Rec	1	5/27/2017 10:30:00 AM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8015B	Analyst: KKD
TPH-GRO IN WATER BY SW8015						
TPH (Gasoline Range)	< 0.150	0.150		mg/L	1	5/30/2017 7:10:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	98.4	70 - 130		%Rec	1	5/30/2017 7:10:00 AM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8021B	Analyst: KKD
BTEX IN WATER BY SW8021						
Benzene	0.00640	0.00500		mg/L	1	5/30/2017 7:10:00 AM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	5/30/2017 7:10:00 AM
Toluene	0.0153	0.0100		mg/L	1	5/30/2017 7:10:00 AM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	5/30/2017 7:10:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	107	70 - 130		%Rec	1	5/30/2017 7:10:00 AM
MERCURY IN GROUND WATER, TOTAL					SW7470A	Analyst: MRM
Mercury	< 0.000200	0.000200		mg/L	1	5/26/2017 1:53:18 PM
INORGANIC ANIONS IN WATER BY IC					SW9056A	Analyst: SGP
Chloride	170	5.00		mg/L	20	5/30/2017 11:13:21 AM
Sulfate	< 0.250	0.250		mg/L	1	5/30/2017 1:30:37 PM
METALS IN WATER BY ICP, TOTALS					SW6010B	Analyst: STS
Arsenic	0.0142	0.0100		mg/L	1	5/30/2017 8:24:31 PM
Barium	0.253	0.0100		mg/L	1	5/30/2017 8:24:31 PM
Cadmium	< 0.00500	0.00500		mg/L	1	5/30/2017 8:24:31 PM
Calcium	99.6	0.500		mg/L	1	5/30/2017 8:24:31 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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Analytical Report

(consolidated)

WO#: 17051063

Date Reported 5/31/2017

CLIENT: ICON Environmental Services **Collection Date:** 5/25/2017 2:55:00 PM
Project: Guidry//9326-012-0100
Lab ID: 17051063-002 **Matrix:** GROUNDWATER
Client Sample ID GC-25 B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS IN WATER BY ICP, TOTALS			SW6010B		Analyst: STS	
Chromium	< 0.0100	0.0100		mg/L	1	5/30/2017 8:24:31 PM
Iron	2.94	0.0100		mg/L	1	5/30/2017 8:24:31 PM
Lead	< 0.0100	0.0100		mg/L	1	5/30/2017 8:24:31 PM
Magnesium	32.3	0.500		mg/L	1	5/30/2017 8:24:31 PM
Manganese	0.471	0.0100		mg/L	1	5/30/2017 8:24:31 PM
Potassium	< 5.00	5.00		mg/L	1	5/30/2017 8:24:31 PM
Selenium	< 0.0200	0.0200		mg/L	1	5/30/2017 8:24:31 PM
Sodium	108	10.0		mg/L	1	5/30/2017 8:24:31 PM
Strontium	1.02	0.0100		mg/L	1	5/30/2017 8:24:31 PM
Zinc	0.0113	0.0100		mg/L	1	5/30/2017 8:24:31 PM
ALKALINITY; TOTAL, CARB, BICARB			SM2320 B		Analyst: TBB	
Alkalinity, Bicarbonate (As CaCO3)	388	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Total (As CaCO3)	388	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
TOTAL DISSOLVED SOLIDS			SM2540C		Analyst: GMS	
Total Dissolved Solids (Residue, Filterable)	663	20.0		mg/L	1	5/26/2017 7:36:00 AM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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 Website: www.element.com

Analytical Report

(consolidated)

WO#: **17051063**

Date Reported **5/31/2017**

CLIENT: ICON Environmental Services

Collection Date: 5/25/2017

Project: Guidry//9326-012-0100

Lab ID: 17051063-003

Matrix: AQUEOUS

Client Sample ID Trip Blank

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX/TPH-G IN WATER BY SW8021/8015				SW8015B		Analyst: KKD
TPH-GRO IN WATER BY SW8015						
TPH (Gasoline Range)	< 0.150	0.150		mg/L	1	5/30/2017 7:37:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	97.2	70 - 130		%Rec	1	5/30/2017 7:37:00 AM
BTEX/TPH-G IN WATER BY SW8021/8015				SW8021B		Analyst: KKD
BTEX IN WATER BY SW8021						
Benzene	< 0.00500	0.00500		mg/L	1	5/30/2017 7:37:00 AM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	5/30/2017 7:37:00 AM
Toluene	< 0.0100	0.0100		mg/L	1	5/30/2017 7:37:00 AM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	5/30/2017 7:37:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	106	70 - 130		%Rec	1	5/30/2017 7:37:00 AM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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 Website: www.element.com

Analytical Report

(consolidated)

WO#: 17051063

Date Reported 5/31/2017

CLIENT: ICON Environmental Services

Collection Date: 5/25/2017

Project: Guidry//9326-012-0100

Lab ID: 17051063-004

Matrix: GROUNDWATER

Client Sample ID Duplicate

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
TPH-D/O IN WATER BY SW8015					SW8015B	Analyst: CRM
TPH DRO/ORO IN WATER BY SW8015					SW3511	
TPH (Diesel Range)	< 0.126	0.126		mg/L	1	5/27/2017 11:01:00 AM
TPH (Oil Range)	< 0.116	0.116		mg/L	1	5/27/2017 11:01:00 AM
Surr: 4-Terphenyl-d14	64.2	51.4 - 146		%Rec	1	5/27/2017 11:01:00 AM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8015B	Analyst: KKD
TPH-GRO IN WATER BY SW8015						
TPH (Gasoline Range)	< 0.150	0.150		mg/L	1	5/30/2017 8:04:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	103	70 - 130		%Rec	1	5/30/2017 8:04:00 AM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8021B	Analyst: KKD
BTEX IN WATER BY SW8021						
Benzene	< 0.00500	0.00500		mg/L	1	5/30/2017 8:04:00 AM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	5/30/2017 8:04:00 AM
Toluene	0.0112	0.0100		mg/L	1	5/30/2017 8:04:00 AM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	5/30/2017 8:04:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	111	70 - 130		%Rec	1	5/30/2017 8:04:00 AM
MERCURY IN GROUND WATER, TOTAL					SW7470A	Analyst: MRM
Mercury	< 0.000200	0.000200		mg/L	1	5/26/2017 1:55:38 PM
INORGANIC ANIONS IN WATER BY IC					SW9056A	Analyst: SGP
Chloride	487	12.5		mg/L	50	5/30/2017 11:27:03 AM
Sulfate	< 0.500	0.500		mg/L	2	5/30/2017 2:11:48 PM
METALS IN WATER BY ICP, TOTALS					SW6010B	Analyst: STS
Arsenic	< 0.0100	0.0100		mg/L	1	5/30/2017 8:29:33 PM
Barium	1.20	0.100		mg/L	10	5/30/2017 8:33:36 PM
Cadmium	< 0.00500	0.00500		mg/L	1	5/30/2017 8:29:33 PM
Calcium	173	5.00		mg/L	10	5/30/2017 8:33:36 PM

Qualifiers:	H	Holding times for preparation or analysis exceeded	M	Matrix Interference
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
	U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

(consolidated)

WO#: **17051063**

Date Reported **5/31/2017**

CLIENT: ICON Environmental Services

Collection Date: 5/25/2017

Project: Guidry//9326-012-0100

Lab ID: 17051063-004

Matrix: GROUNDWATER

Client Sample ID Duplicate

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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METALS IN WATER BY ICP, TOTALS

SW6010B

Analyst: **STS**

Chromium	< 0.0100	0.0100		mg/L	1	5/30/2017 8:29:33 PM
Iron	6.82	0.100		mg/L	10	5/30/2017 8:33:36 PM
Lead	< 0.0100	0.0100		mg/L	1	5/30/2017 8:29:33 PM
Magnesium	54.7	0.500		mg/L	1	5/30/2017 8:29:33 PM
Manganese	0.924	0.0100		mg/L	1	5/30/2017 8:29:33 PM
Potassium	< 5.00	5.00		mg/L	1	5/30/2017 8:29:33 PM
Selenium	< 0.0200	0.0200		mg/L	1	5/30/2017 8:29:33 PM
Sodium	212	100		mg/L	10	5/30/2017 8:33:36 PM
Strontium	1.58	0.100		mg/L	10	5/30/2017 8:33:36 PM
Zinc	< 0.0100	0.0100		mg/L	1	5/30/2017 8:29:33 PM

ALKALINITY; TOTAL, CARB, BICARB

SM2320 B

Analyst: **TBB**

Alkalinity, Bicarbonate (As CaCO3)	368	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM
Alkalinity, Total (As CaCO3)	368	10.0		mgCaCO3/L	1	5/26/2017 9:43:26 AM

TOTAL DISSOLVED SOLIDS

SM2540C

Analyst: **GMS**

Total Dissolved Solids (Residue, Filterable)	1,160	100		mg/L	5	5/26/2017 7:36:00 AM
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Qualifiers:						
H	Holding times for preparation or analysis exceeded	M	Matrix Interference			
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S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit			
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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: 23278

Sample ID: MB-23278	SampType: MBLK	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504
Client ID: PBW	Batch ID: 23278	TestNo: SW7470A	Analysis Date: 5/26/2017	SeqNo: 1514765	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	< 0.000200	0.000200			

Sample ID: LCS-23278	SampType: LCS	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504
Client ID: LCSW	Batch ID: 23278	TestNo: SW7470A	Analysis Date: 5/26/2017	SeqNo: 1514768	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.0100	0.000200	0.01000	0	100 80 120

Sample ID: LCSD-23278	SampType: LCSD	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504
Client ID: LCSS02	Batch ID: 23278	TestNo: SW7470A	Analysis Date: 5/26/2017	SeqNo: 1514769	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.0100	0.000200	0.01000	0	100 80 120 0.01004 0.329 20

Sample ID: 17050962-002DMS	SampType: MS	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504
Client ID: ZZZZZZ	Batch ID: 23278	TestNo: SW7470A	Analysis Date: 5/26/2017	SeqNo: 1514771	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Mercury	0.00413	0.000200	0.01000	0	41.3 75 125 S

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
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 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: 23278

Sample ID: 17050962-002DMSD	SampType: MSD	TestCode: HG_W_7470A	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61504						
Client ID: ZZZZZZ	Batch ID: 23278	TestNo: SW7470A		Analysis Date: 5/26/2017	SeqNo: 1514772						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00430	0.000200	0.01000	0	43.0	75	125	0.004131	4.02	20	S

Sample ID: 17050962-002DPDS	SampType: PDS	TestCode: HG_W_7470A	Units: mg/L	Prep Date:	RunNo: 61504						
Client ID: ZZZZZZ	Batch ID: 23278	TestNo: SW7470A		Analysis Date: 5/26/2017	SeqNo: 1514806						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00608	0.000200	0.0152	0	40.0	80	120				S

Sample ID: 17050962-002DPDSD	SampType: PSDS	TestCode: HG_W_7470A	Units: mg/L	Prep Date:	RunNo: 61504						
Client ID: ZZZZZZ	Batch ID: 23278	TestNo: SW7470A		Analysis Date: 5/26/2017	SeqNo: 1514809						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00613	0.000200	0.01520	0	40.3	80	120	0.006078	0.788	20	S

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

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: 23284

Sample ID: LCSD-D-23284	SampType: LCSD	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61534						
Client ID: LCSS02	Batch ID: 23284	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515378						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	2.06	0.131	1.725	0	119	70	130	2.013	2.34	14.1
Surr: 4-Terphenyl-d14	0.0339		0.05748		59.0	51.4	146		0	40

Sample ID: LCS-D-23284	SampType: LCS	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61534						
Client ID: LCSW	Batch ID: 23284	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515379						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	2.01	0.131	1.726	0	117	70	130
Surr: 4-Terphenyl-d14	0.0433		0.05753		75.3	51.4	146

Sample ID: MB-23284	SampType: MBLK	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61534						
Client ID: PBW	Batch ID: 23284	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515380						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Diesel Range)	< 0.131	0.131					
TPH (Oil Range)	< 0.121	0.121					
Surr: 4-Terphenyl-d14	0.0459		0.05760		79.6	51.4	146

Sample ID: LCSD-M-23284	SampType: LCSD	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61534						
Client ID: LCSS02	Batch ID: 23284	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515381						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: 23284

Sample ID: LCSD-M-23284	SampType: LCSD	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61534						
Client ID: LCSS02	Batch ID: 23284	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515381						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)	2.13	0.121	1.726	0	123	70	130	2.033	4.62	23.2	
Surr: 4-Terphenyl-d14	0.0566		0.05752		98.4	51.4	146		0	40	

Sample ID: LCS-M-23284	SampType: LCS	TestCode: 8015_DO_W_	Units: mg/L	Prep Date: 5/26/2017	RunNo: 61534						
Client ID: LCSW	Batch ID: 23284	TestNo: SW8015B	SW3511	Analysis Date: 5/27/2017	SeqNo: 1515382						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Oil Range)	2.03	0.121	1.729	0	118	70	130				
Surr: 4-Terphenyl-d14	0.0541		0.05763		93.8	51.4	146				

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services

Project: Guidry//9326-012-0100

BatchID: 23293

Sample ID: MB-23293	SampType: MBLK	TestCode: 6010_W	Units: mg/L	Prep Date: 5/30/2017	RunNo: 61558						
Client ID: PBW	Batch ID: 23293	TestNo: SW6010B		Analysis Date: 5/30/2017	SeqNo: 1516372						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	< 0.0100	0.0100									
Barium	< 0.0100	0.0100									
Cadmium	< 0.00500	0.00500									
Calcium	< 0.500	0.500									
Chromium	< 0.0100	0.0100									
Iron	< 0.0100	0.0100									
Lead	< 0.0100	0.0100									
Magnesium	< 0.500	0.500									
Manganese	< 0.0100	0.0100									
Potassium	< 5.00	5.00									
Selenium	< 0.0200	0.0200									
Sodium	< 10.0	10.0									
Strontium	< 0.0100	0.0100									
Zinc	< 0.0100	0.0100									

Sample ID: LCS-23293	SampType: LCS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/30/2017	RunNo: 61558						
Client ID: LCSW	Batch ID: 23293	TestNo: SW6010B		Analysis Date: 5/30/2017	SeqNo: 1516373						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	0.535	0.0100	0.5000	0	107	80	120				
Barium	0.536	0.0100	0.5000	0	107	80	120				
Cadmium	0.533	0.00500	0.5000	0	107	80	120				
Calcium	51.4	0.500	50.00	0	103	80	120				
Chromium	0.526	0.0100	0.5000	0	105	80	120				
Iron	0.572	0.0100	0.5000	0	114	80	120				

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services

Project: Guidry//9326-012-0100

BatchID: 23293

Sample ID: LCS-23293	SampType: LCS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/30/2017	RunNo: 61558
Client ID: LCSW	Batch ID: 23293	TestNo: SW6010B		Analysis Date: 5/30/2017	SeqNo: 1516373

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.550	0.0100	0.5000	0	110	80	120				
Magnesium	51.2	0.500	50.00	0	102	80	120				
Manganese	0.528	0.0100	0.5000	0	106	80	120				
Potassium	51.3	5.00	50.00	0	103	80	120				
Selenium	0.539	0.0200	0.5000	0	108	80	120				
Sodium	51.8	10.0	50.00	0	104	80	120				
Strontium	0.529	0.0100	0.5000	0	106	80	120				
Zinc	0.550	0.0100	0.5000	0	110	80	120				

Sample ID: LCSD-23293	SampType: LCSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/30/2017	RunNo: 61558
Client ID: LCSS02	Batch ID: 23293	TestNo: SW6010B		Analysis Date: 5/30/2017	SeqNo: 1516377

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.518	0.0100	0.5000	0	104	80	120	0.5352	3.23	20	
Barium	0.523	0.0100	0.5000	0	105	80	120	0.5363	2.59	20	
Cadmium	0.520	0.00500	0.5000	0	104	80	120	0.5327	2.51	20	
Calcium	50.1	0.500	50.00	0	100	80	120	51.41	2.56	20	
Chromium	0.513	0.0100	0.5000	0	103	80	120	0.5263	2.62	20	
Iron	0.558	0.0100	0.5000	0	112	80	120	0.5724	2.48	20	
Lead	0.536	0.0100	0.5000	0	107	80	120	0.5495	2.52	20	
Magnesium	50.5	0.500	50.00	0	101	80	120	51.24	1.47	20	
Manganese	0.520	0.0100	0.5000	0	104	80	120	0.5282	1.58	20	
Potassium	50.2	5.00	50.00	0	100	80	120	51.26	2.17	20	
Selenium	0.543	0.0200	0.5000	0	109	80	120	0.5386	0.740	20	
Sodium	51.5	10.0	50.00	0	103	80	120	51.84	0.580	20	

Qualifiers:
 H Holding times for preparation or analysis exceeded
 RL Reporting Limit
 U Analyte not detected

M Matrix Interference
 S Spike Recovery outside accepted recovery limits
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit
 SDL Sample detection limit



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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: 23293

Sample ID: LCSD-23293	SampType: LCSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/30/2017	RunNo: 61558						
Client ID: LCSS02	Batch ID: 23293	TestNo: SW6010B		Analysis Date: 5/30/2017	SeqNo: 1516377						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Strontium	0.519	0.0100	0.5000	0	104	80	120	0.5289	1.91	20	
Zinc	0.536	0.0100	0.5000	0	107	80	120	0.5498	2.45	20	

Sample ID: 17051104-001DMS	SampType: MS	TestCode: 6010_W	Units: mg/L	Prep Date: 5/30/2017	RunNo: 61558						
Client ID: ZZZZZZ	Batch ID: 23293	TestNo: SW6010B		Analysis Date: 5/30/2017	SeqNo: 1516390						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.565	0.0100	0.5000	0.03630	106	75	125				
Barium	1.19	0.0100	0.5000	0.6698	105	75	125				
Cadmium	0.518	0.00500	0.5000	0.001800	103	75	125				
Calcium	143	0.500	50.00	90.25	106	75	125				
Chromium	0.522	0.0100	0.5000	0.0008000	104	75	125				
Iron	8.23	0.0100	0.5000	7.755	94.6	75	125				
Lead	0.522	0.0100	0.5000	0	104	75	125				
Magnesium	81.4	0.500	50.00	30.56	102	75	125				
Manganese	0.838	0.0100	0.5000	0.3121	105	75	125				
Potassium	58.9	5.00	50.00	7.685	102	75	125				
Selenium	0.540	0.0200	0.5000	0.007800	106	75	125				
Sodium	120	10.0	50.00	70.07	100	75	125				
Zinc	0.542	0.0100	0.5000	0.01430	106	75	125				

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: 23293

Sample ID:	17051104-001DMSD	SampType:	MSD	TestCode:	6010_W	Units:	mg/L	Prep Date:	5/30/2017	RunNo:	61558
Client ID:	ZZZZZZ	Batch ID:	23293	TestNo:	SW6010B	Analysis Date:	5/30/2017	SeqNo:	1516391		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.567	0.0100	0.5000	0.03630	106	75	125	0.5653	0.230	20	
Barium	1.17	0.0100	0.5000	0.6698	101	75	125	1.194	1.69	20	
Cadmium	0.512	0.00500	0.5000	0.001800	102	75	125	0.5184	1.14	20	
Calcium	140	0.500	50.00	90.25	100	75	125	143.3	2.04	20	
Chromium	0.513	0.0100	0.5000	0.0008000	103	75	125	0.5215	1.58	20	
Iron	8.17	0.0100	0.5000	7.755	82.0	75	125	8.228	0.769	20	
Lead	0.516	0.0100	0.5000	0	103	75	125	0.5219	1.14	20	
Magnesium	80.3	0.500	50.00	30.56	99.6	75	125	81.44	1.36	20	
Manganese	0.825	0.0100	0.5000	0.3121	103	75	125	0.8383	1.56	20	
Potassium	57.8	5.00	50.00	7.685	100	75	125	58.90	1.85	20	
Selenium	0.530	0.0200	0.5000	0.007800	104	75	125	0.5398	1.93	20	
Sodium	119	10.0	50.00	70.07	98.5	75	125	120.1	0.668	20	
Zinc	0.532	0.0100	0.5000	0.01430	104	75	125	0.5419	1.84	20	

Sample ID:	17051104-001DMS	SampType:	MS	TestCode:	6010_W	Units:	mg/L	Prep Date:	5/30/2017	RunNo:	61558
Client ID:	ZZZZZZ	Batch ID:	23293	TestNo:	SW6010B	Analysis Date:	5/30/2017	SeqNo:	1516393		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Strontium	1.16	0.100	0.5000	0.6270	106	75	125				

Qualifiers:
 H Holding times for preparation or analysis exceeded
 RL Reporting Limit
 U Analyte not detected

M Matrix Interference
 S Spike Recovery outside accepted recovery limits
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit
 SDL Sample detection limit



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QC SUMMARY REPORT

WO#: 17051063
 31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: 23293

Sample ID: 17051104-001DMSD	SampType: MSD	TestCode: 6010_W	Units: mg/L	Prep Date: 5/30/2017	RunNo: 61558						
Client ID: ZZZZZZ	Batch ID: 23293	TestNo: SW6010B		Analysis Date: 5/30/2017	SeqNo: 1516394						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Strontium	1.20	0.100	0.5000	0.6270	116	75	125	1.157	4.06	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: R61469

Sample ID: MB-R61469	SampType: MBLK	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61469						
Client ID: PBW	Batch ID: R61469	TestNo: SM2540C		Analysis Date: 5/26/2017	SeqNo: 1515968						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filterable) < 20.0 20.0

Sample ID: LCS-R61469	SampType: LCS	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61469						
Client ID: LCSW	Batch ID: R61469	TestNo: SM2540C		Analysis Date: 5/26/2017	SeqNo: 1515969						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filterable) 980 20.0 1,000 0 98.0 85 115

Sample ID: LCSD-R61469	SampType: LCSD	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61469						
Client ID: LCSS02	Batch ID: R61469	TestNo: SM2540C		Analysis Date: 5/26/2017	SeqNo: 1515970						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filterable) 981 20.0 1,000 0 98.1 85 115 980.0 0.102 10

Sample ID: 17050796-001BDUP	SampType: DUP	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61469						
Client ID: ZZZZZ	Batch ID: R61469	TestNo: SM2540C		Analysis Date: 5/26/2017	SeqNo: 1515972						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids (Residue, Filterable) 27,300 2,000 26,300 3.73 10 H

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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#: 17051063
 31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: R61469

Sample ID: 17050796-001BDUP	SampType: DUP	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61469						
Client ID: ZZZZZZ	Batch ID: R61469	TestNo: SM2540C		Analysis Date: 5/26/2017	SeqNo: 1515972						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 17051028-001CDUP	SampType: DUP	TestCode: TDS_2540C	Units: mg/L	Prep Date:	RunNo: 61469						
Client ID: ZZZZZZ	Batch ID: R61469	TestNo: SM2540C		Analysis Date: 5/26/2017	SeqNo: 1515976						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filterable)	2,380	100						2,420	1.88	10	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: R61481

Sample ID: MB-R61481	SampType: MBLK	TestCode: ALK	Units: mgCaCO3/L	Prep Date:	RunNo: 61481						
Client ID: PBW	Batch ID: R61481	TestNo: SM2320 B		Analysis Date: 5/26/2017	SeqNo: 1514266						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Bicarbonate (As CaCO3) < 10.0 10.0
 Alkalinity, Carbonate (As CaCO3) < 10.0 10.0
 Alkalinity, Total (As CaCO3) < 10.0 10.0

Sample ID: LCS-R61481	SampType: LCS	TestCode: ALK	Units: mgCaCO3/L	Prep Date:	RunNo: 61481						
Client ID: LCSW	Batch ID: R61481	TestNo: SM2320 B		Analysis Date: 5/26/2017	SeqNo: 1514266						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Total (As CaCO3) 46.0 10.0 50.00 0 92.0 80 120

Sample ID: 17050891-001DDUP	SampType: DUP	TestCode: ALK	Units: mgCaCO3/L	Prep Date:	RunNo: 61481						
Client ID: ZZZZZ	Batch ID: R61481	TestNo: SM2320 B		Analysis Date: 5/26/2017	SeqNo: 1514268						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity, Bicarbonate (As CaCO3) 783 10.0 785.0 0.319 20
 Alkalinity, Carbonate (As CaCO3) < 10.0 10.0 0 0 20
 Alkalinity, Total (As CaCO3) 783 10.0 785.0 0.319 20

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: R61522

Sample ID: MBLK	SampType: MBLK	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61522						
Client ID: PBW	Batch ID: R61522	TestNo: SW9056A		Analysis Date: 5/30/2017	SeqNo: 1516061						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	< 0.250	0.250									
Sulfate	< 0.250	0.250									

Sample ID: LCS	SampType: LCS	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61522						
Client ID: LCSW	Batch ID: R61522	TestNo: SW9056A		Analysis Date: 5/30/2017	SeqNo: 1516062						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	9.57	0.250	10.00	0	95.7	80	120				
Sulfate	10.0	0.250	10.00	0	100	80	120				

Sample ID: LCSD	SampType: LCSD	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61522						
Client ID: LCSS02	Batch ID: R61522	TestNo: SW9056A		Analysis Date: 5/30/2017	SeqNo: 1516063						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	9.55	0.250	10.00	0	95.5	80	120	9.566	0.124	15	
Sulfate	10.0	0.250	10.00	0	100	80	120	10.00	0.0682	15	

Sample ID: 17051117-002CMS	SampType: MS	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61522						
Client ID: ZZZZZZ	Batch ID: R61522	TestNo: SW9056A		Analysis Date: 5/30/2017	SeqNo: 1516072						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	1,650	25.0	500.0	1,176	94.7	80	120				
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Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: R61522

Sample ID: 17051117-002CMS	SampType: MS	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61522						
Client ID: ZZZZZ	Batch ID: R61522	TestNo: SW9056A		Analysis Date: 5/30/2017	SeqNo: 1516072						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate	470	25.0	500.0	0	94.0	80	120				
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Sample ID: 17051117-002CMSD	SampType: MSD	TestCode: 9056_W	Units: mg/L	Prep Date:	RunNo: 61522						
Client ID: ZZZZZ	Batch ID: R61522	TestNo: SW9056A		Analysis Date: 5/30/2017	SeqNo: 1516073						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	1,650	25.0	500.0	1,176	94.1	80	120	1,650	0.176	15	
Sulfate	470	25.0	500.0	0	94.0	80	120	469.9	0.0132	15	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: R61537

Sample ID: ACID	SampType: MBLK	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61537						
Client ID: PBW	Batch ID: R61537	TestNo: SW8021B	Analysis Date: 5/30/2017	SeqNo: 1515548							
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									
Toluene	< 0.0100	0.0100									
Xylenes, Total	< 0.0500	0.0500									
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0549		0.05000		110	70	130				

Sample ID: BTEX LCS	SampType: LCS	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61537						
Client ID: LCSW	Batch ID: R61537	TestNo: SW8021B	Analysis Date: 5/30/2017	SeqNo: 1515549							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.0512	0.00500	0.05000	0	102	72	120				
Ethylbenzene	0.0497	0.00500	0.05000	0	99.4	76	129				
Toluene	0.0505	0.0100	0.05000	0	101	78	120				
Xylenes, Total	0.152	0.0500	0.1500	0	101	75	125				
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0550		0.05000		110	70	130				

Sample ID: BTEX LCSD	SampType: LCSD	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61537						
Client ID: LCSS02	Batch ID: R61537	TestNo: SW8021B	Analysis Date: 5/30/2017	SeqNo: 1515550							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.0492	0.00500	0.05000	0	98.4	72	120	0.05120	3.98	20	
Ethylbenzene	0.0474	0.00500	0.05000	0	94.8	76	129	0.04970	4.74	20	

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051063
 31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: R61537

Sample ID: BTEX LCSD	SampType: LCSD	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61537						
Client ID: LCSS02	Batch ID: R61537	TestNo: SW8021B	Analysis Date: 5/30/2017	SeqNo: 1515550							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	0.0484	0.0100	0.05000	0	96.8	78	120	0.05050	4.25	20	
Xylenes, Total	0.148	0.0500	0.1500	0	98.4	75	125	0.1515	2.61	20	
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0544		0.05000		109	70	130		0	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051063
 31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: R61538

Sample ID: ACID	SampType: MBLK	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61538						
Client ID: PBW	Batch ID: R61538	TestNo: SW8015B		Analysis Date: 5/30/2017	SeqNo: 1515557						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline Range)	< 0.150	0.150									
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0514		0.05000		103	70	130				

Sample ID: GAS LCS	SampType: LCS	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61538						
Client ID: LCSSW	Batch ID: R61538	TestNo: SW8015B		Analysis Date: 5/30/2017	SeqNo: 1515558						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline Range)	11.4	0.150	12.50	0	91.3	80	130				
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Sample ID: GAS LCSD	SampType: LCSD	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61538						
Client ID: LCSS02	Batch ID: R61538	TestNo: SW8015B		Analysis Date: 5/30/2017	SeqNo: 1515559						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline Range)	12.1	0.150	12.50	0	96.9	80	130	11.41	5.95	20	
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Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: R61569

Sample ID: ACID	SampType: MBLK	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61569						
Client ID: PBW	Batch ID: R61569	TestNo: SW8021B		Analysis Date: 5/31/2017	SeqNo: 1516633						
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									
Toluene	< 0.0100	0.0100									
Xylenes, Total	< 0.0500	0.0500									
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0564		0.05000		113	70	130				

Sample ID: BTEX LCS	SampType: LCS	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61569						
Client ID: LCSW	Batch ID: R61569	TestNo: SW8021B		Analysis Date: 5/30/2017	SeqNo: 1516634						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.0511	0.00500	0.05000	0	102	72	120				
Ethylbenzene	0.0469	0.00500	0.05000	0	93.8	76	129				
Toluene	0.0503	0.0100	0.05000	0	101	78	120				
Xylenes, Total	0.145	0.0500	0.1500	0	96.8	75	125				
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0595		0.05000		119	70	130				

Sample ID: BTEX LCSD	SampType: LCSD	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61569						
Client ID: LCSS02	Batch ID: R61569	TestNo: SW8021B		Analysis Date: 5/30/2017	SeqNo: 1516635						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.0549	0.00500	0.05000	0	110	72	120	0.05110	7.17	20	
Ethylbenzene	0.0525	0.00500	0.05000	0	105	76	129	0.04690	11.3	20	

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
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 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17051063
 31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: R61569

Sample ID: BTEX LCSD	SampType: LCSD	TestCode: 8021_BTEX_	Units: mg/L	Prep Date:	RunNo: 61569						
Client ID: LCSS02	Batch ID: R61569	TestNo: SW8021B	Analysis Date: 5/30/2017	SeqNo: 1516635							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	0.0546	0.0100	0.05000	0	109	78	120	0.05030	8.20	20	
Xylenes, Total	0.163	0.0500	0.1500	0	109	75	125	0.1452	11.7	20	
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0570		0.05000		114	70	130		0	20	

Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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QC SUMMARY REPORT

WO#: 17051063

31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: R61570

Sample ID: 17050872-005AMS	SampType: MS	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61570						
Client ID: ZZZZZ	Batch ID: R61570	TestNo: SW8015B		Analysis Date: 5/31/2017	SeqNo: 1516643						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline Range)	73.5	0.750	62.50	4.811	110	70	130				
Surr: alpha, alpha, alpha-Trifluorotoluene	0.401		0.2500		160	70	130				SM

Sample ID: 17050872-005AMSD	SampType: MSD	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61570						
Client ID: ZZZZZ	Batch ID: R61570	TestNo: SW8015B		Analysis Date: 5/31/2017	SeqNo: 1516644						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline Range)	72.4	0.750	62.50	4.811	108	70	130	73.46	1.41	20	
Surr: alpha, alpha, alpha-Trifluorotoluene	0.394		0.2500		158	70	130		0	20	SM

Sample ID: ACID	SampType: MBLK	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61570						
Client ID: PBW	Batch ID: R61570	TestNo: SW8015B		Analysis Date: 5/31/2017	SeqNo: 1516649						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPH (Gasoline Range)	< 0.150	0.150									
Surr: alpha, alpha, alpha-Trifluorotoluene	0.0499		0.05000		99.8	70	130				

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference ND Not Detected at the Reporting Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode



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 Lafayette, LA 70508-3344
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QC SUMMARY REPORT

WO#: 17051063
 31-May-17

Client: ICON Environmental Services
Project: Guidry//9326-012-0100

BatchID: R61570

Sample ID: GAS LCS	SampType: LCS	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61570						
Client ID: LCSW	Batch ID: R61570	TestNo: SW8015B		Analysis Date: 5/30/2017	SeqNo: 1516650						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline Range)	13.9	0.150	12.50	0	111	80	130				
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Sample ID: GAS LCSD	SampType: LCSD	TestCode: 8015_G_W	Units: mg/L	Prep Date:	RunNo: 61570						
Client ID: LCSS02	Batch ID: R61570	TestNo: SW8015B		Analysis Date: 5/30/2017	SeqNo: 1516651						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TPH (Gasoline Range)	13.9	0.150	12.50	0	111	80	130	13.89	0.352	20	
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Qualifiers:

H	Holding times for preparation or analysis exceeded	M	Matrix Interference	ND	Not Detected at the Reporting Limit
RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode		



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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Sample Log-In Check List

Client Name: **ICON_ENV**

Work Order Number: **17051063**

RcptNo: **1**

Logged by:	Tammy Thibodeaux	5/25/2017 4:05:00 PM	<i>Tammy Thibodeaux</i>
Completed By:	Tammy Thibodeaux	5/25/2017 4:34:50 PM	<i>Tammy Thibodeaux</i>
Reviewed By:	Caitlin Duplantis	5/30/2017 10:28:56 AM	<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	0.6	Good	Not Present			



element™

Chain of Custody

Laboratory Number: 17051063

Company Name: Contact Name: Address: City, State Zip: Phone Number: Fax Number: E-mail Address:	Client Information: 1CON Environmental Jason Sills 2049 Commercial Dr. Port Allen, LA 70767 (225) 344-8490	Billing Information: SAME	PO Number: Quote Number: Required QC Level: Bill Monthly:	Project Name/Number: Gwldry 9326-010-0100 Sampler's Signature: Shipping Method: UPS / FedEx / NOW DHL / Element / <u>Hand</u> Mail	Page 1 of 1 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
	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				

Which Regulations Apply:	Turn Time	(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container		Pres.	Requested Tests							Comments			
			Quantity	Type P=Plastic, G=Glass, V=Vial		HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	BTX/TPH-G	TPH-D/O	TDS/Cl-	Cations	Anions	Total Metals				
<input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USDA/FDA <input type="checkbox"/> RECAP/RISC <input type="checkbox"/> Drinking Water <input type="checkbox"/> Distribution <input type="checkbox"/> Special <input type="checkbox"/> State <input type="checkbox"/> Other	<input type="checkbox"/> Standard <input checked="" type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input checked="" type="checkbox"/> Other													Metals As, Ba, Cd, Cr, Pb, Fe, Mn, Se, Sr, Zn, Hg Cations Ca, Mg, K, Na Anions Alk. Carbonate Alk. Bicarbonate SO ₄		
Collection Information			Date	Time	Grab / Composite	Matrix	Quantity	Type	Pres.	BTX/TPH-G	TPH-D/O	TDS/Cl-	Cations	Anions	Total Metals	
Sample ID/Description			5-25-17	1145	G	GW	8	P,G,V	HCl, HNO ₃	X	X	X	X	X	X	
GC-25C			5-25-17	1455	G	GW	8	P,G,V	HCl, HNO ₃	X	X	X	X	X	X	
GC-25B			5-25-17	-	-	AQ	3	G,V	HCl	X						
Trip Blank			5-25-17	-	G	GW	8	P,G,V	HCl, HNO ₃	X	X	X	X	X	X	
Dup																

	Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
1		5-25-17/1605		5-25-17/1605	
2					Received at lab on ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 0.6°C
3					

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 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 574-269-6569

3371 Cleveland Road, Suite 100A
 South Bend, IN
 46628-9780 USA
 P 574-277-0707
 F 574-273-5699

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



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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Analytical Report

(consolidated)

WO#: 17050983

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 10:00:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-001 **Matrix:** SOLID
Client Sample ID GC-23 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	1.49	0.10		mmhos/cm	1	5/30/2017 4:35:00 PM
29B SALTS				LDNR 29-B		Analyst: STS
SODIUM ADSORPTION RATIO				LDNR 29-B		
Sodium Adsorption Ratio	27.6	0.10	*		1	5/31/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/31/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/31/2017
Soluble Sodium	13.7	1.00		meq/L	1	5/31/2017

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

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 Lafayette, LA 70508-3344
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Analytical Report

(consolidated)

WO#: 17050983

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 10:05:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-002 **Matrix:** SOLID
Client Sample ID GC-23 4-6

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION					LDNR 29-B	Analyst: MMT
Electrical Conductivity	2.58	0.10		mmhos/cm	1	5/30/2017 4:35:00 PM
29B SALTS					LDNR 29-B	Analyst: STS
SODIUM ADSORPTION RATIO					LDNR 29-B	Analyst: STS
Sodium Adsorption Ratio	43.5	0.10	*		1	5/31/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/31/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/31/2017
Soluble Sodium	22.5	1.00		meq/L	1	5/31/2017
TPH-D/O IN SOIL BY SW8015					SW8015B	Analyst: KKD
TPH DRO/ORO IN SOIL BY SW8015					SW3550C	Analyst: KKD
TPH (Diesel Range)	1,600	200		mg/Kg	20	5/25/2017 2:15:00 PM
TPH (Oil Range)	749	200		mg/Kg	20	5/25/2017 2:15:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%Rec	20	5/25/2017 2:15:00 PM

NOTES:

SD - Surrogate diluted out due to dilution.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded
M	Matrix Interference	ND Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL Sample detection limit
U	Analyte not detected	W Sample container temperature is out of limit as specified at testcode

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 Lafayette, LA 70508-3344
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WO#: 17050983

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 10:10:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-003 **Matrix:** SOLID
Client Sample ID GC-23 8-10

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	3.89	0.10		mmhos/cm	1	5/30/2017 4:35:00 PM
29B SALTS				LDNR 29-B	LDNR 29-B	Analyst: STS
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	59.4	0.10	*		1	5/31/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/31/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/31/2017
Soluble Sodium	35.1	1.00		meq/L	1	5/31/2017

Qualifiers: * Value exceeds Maximum Contaminant Level. H Holding times for preparation or analysis exceeded
 M Matrix Interference ND Not Detected at the Reporting Limit
 R RPD outside accepted recovery limits RL Reporting Limit
 S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode

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Analytical Report

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WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 10:25:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-004 **Matrix:** SOLID
Client Sample ID GC-23 16-18

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION		LDNR 29-B			Analyst: MMT	
Electrical Conductivity	25.0	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

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 Lafayette, LA 70508-3344
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Analytical Report

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WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 10:40:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-005 **Matrix:** SOLID
Client Sample ID GC-23 22-24

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION					LDNR 29-B	Analyst: MMT
Electrical Conductivity	54.2	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

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 Lafayette, LA 70508-3344
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WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 10:55:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-006 **Matrix:** SOLID
Client Sample ID GC-23 30-32

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION		LDNR 29-B			Analyst: MMT	
Electrical Conductivity	46.4	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

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Analytical Report

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WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 11:10:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-007 **Matrix:** SOLID
Client Sample ID GC-23 36-38

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION		LDNR 29-B			Analyst: MMT	
Electrical Conductivity	70.7	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

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Analytical Report

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WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 11:30:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-008 **Matrix:** SOLID
Client Sample ID GC-23 44-46

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION		LDNR 29-B			Analyst: MMT	
Electrical Conductivity	17.6	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

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Analytical Report

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WO#: 17050983

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 2:20:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-009 **Matrix:** SOLID
Client Sample ID GC-24 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	1.92	0.10		mmhos/cm	1	5/30/2017 4:45:00 PM
29B SALTS				LDNR 29-B		Analyst: STS
SODIUM ADSORPTION RATIO				LDNR 29-B		
Sodium Adsorption Ratio	36.2	0.10	*		1	5/31/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/31/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/31/2017
Soluble Sodium	18.4	1.00		meq/L	1	5/31/2017

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

PRELIMINARY



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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Analytical Report

(consolidated)

WO#: 17050983

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 2:25:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-010 **Matrix:** SOLID
Client Sample ID GC-24 4-6

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION					LDNR 29-B	Analyst: MMT
Electrical Conductivity	4.13	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM
29B SALTS					LDNR 29-B	Analyst: STS
SODIUM ADSORPTION RATIO					LDNR 29-B	
Sodium Adsorption Ratio	43.2	0.10	*		1	5/31/2017
Soluble Calcium	< 1.00	1.00		meq/L	1	5/31/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/31/2017
Soluble Sodium	34.7	1.00		meq/L	1	5/31/2017

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

PRELIMINARY



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 Lafayette, LA 70508-3344
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Analytical Report

(consolidated)

WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 2:30:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-011 **Matrix:** SOLID
Client Sample ID GC-24 8-10

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	13.9	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM
29B SALTS				LDNR 29-B	LDNR 29-B	Analyst: STS
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	108	0.10	*		1	5/31/2017
Soluble Calcium	2.01	1.00		meq/L	1	5/31/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/31/2017
Soluble Sodium	128	1.00		meq/L	1	5/31/2017

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

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 Lafayette, LA 70508-3344
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Analytical Report

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WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 2:40:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-012 **Matrix:** SOLID
Client Sample ID GC-24 14-16

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION		LDNR 29-B			Analyst: MMT	
Electrical Conductivity	34.5	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

PRELIMINARY



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 Lafayette, LA 70508-3344
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Analytical Report

(consolidated)

WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 3:20:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-013 **Matrix:** SOLID
Client Sample ID GC-24 20-22

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION		LDNR 29-B			Analyst: MMT	
Electrical Conductivity	27.0	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

PRELIMINARY



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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Analytical Report

(consolidated)

WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 3:50:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-014 **Matrix:** SOLID
Client Sample ID GC-24 32-34

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION		LDNR 29-B			Analyst: MMT	
Electrical Conductivity	44.8	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

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Analytical Report

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WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/22/2017 4:25:00 PM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-015 **Matrix:** SOLID
Client Sample ID GC-24 46-48

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION		LDNR 29-B			Analyst: MMT	
Electrical Conductivity	51.2	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

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Analytical Report

(consolidated)

WO#: 17050983

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/23/2017 8:25:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-016 **Matrix:** SOLID
Client Sample ID GC-25 0-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION				LDNR 29-B		Analyst: MMT
Electrical Conductivity	3.58	0.10		mmhos/cm	1	5/30/2017 4:45:00 PM
29B SALTS				LDNR 29-B	LDNR 29-B	Analyst: STS
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	39.9	0.10	*		1	5/31/2017
Soluble Calcium	1.41	1.00		meq/L	1	5/31/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/31/2017
Soluble Sodium	40.2	1.00		meq/L	1	5/31/2017

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

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

Analytical Report

(consolidated)

WO#: 17050983

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/23/2017 8:29:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-017 **Matrix:** SOLID
Client Sample ID GC-25 4-6

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION		LDNR 29-B			Analyst: MMT	
Electrical Conductivity	7.16	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM
TPH-D/O IN SOIL BY SW8015		SW8015B			SW3550C Analyst: KKD	
TPH DRO/ORO IN SOIL BY SW8015						
TPH (Diesel Range)	5,210	1,000		mg/Kg	100	5/25/2017 2:31:00 PM
TPH (Oil Range)	2,510	1,000		mg/Kg	100	5/25/2017 2:31:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%Rec	100	5/25/2017 2:31:00 PM

NOTES:

SD - Surrogate diluted out due to dilution.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded
M Matrix Interference	ND Not Detected at the Reporting Limit	RL Reporting Limit
R RPD outside accepted recovery limits	SDL Sample detection limit	W Sample container temperature is out of limit as specified at testcode
S Spike Recovery outside accepted recovery limits		
U Analyte not detected		

PRELIMINARY



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 Lafayette, LA 70508-3344
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Analytical Report

(consolidated)

WO#: 17050983

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/23/2017 8:30:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-018 **Matrix:** SOLID
Client Sample ID GC-25 8-10

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION					LDNR 29-B	Analyst: MMT
Electrical Conductivity	12.6	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM
29B SALTS					LDNR 29-B	Analyst: STS
SODIUM ADSORPTION RATIO					LDNR 29-B	Analyst: STS
Sodium Adsorption Ratio	73.7	0.10	*		1	5/31/2017
Soluble Calcium	4.14	1.00		meq/L	1	5/31/2017
Soluble Magnesium	< 1.00	1.00		meq/L	1	5/31/2017
Soluble Sodium	118	1.00		meq/L	1	5/31/2017
TPH-D/O IN SOIL BY SW8015					SW8015B	Analyst: KKD
TPH DRO/ORO IN SOIL BY SW8015					SW3550C	Analyst: KKD
TPH (Diesel Range)	5,000	500		mg/Kg	50	5/25/2017 2:48:00 PM
TPH (Oil Range)	2,250	500		mg/Kg	50	5/25/2017 2:48:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%Rec	50	5/25/2017 2:48:00 PM

NOTES:

SD - Surrogate diluted out due to dilution.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded
M	Matrix Interference	ND Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL Sample detection limit
U	Analyte not detected	W Sample container temperature is out of limit as specified at testcode

PRELIMINARY



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 Lafayette, LA 70508-3344
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Analytical Report

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WO#: 17050983

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/23/2017 9:30:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-019 **Matrix:** SOLID
Client Sample ID GC-25 16-18

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION					LDNR 29-B	Analyst: MMT
Electrical Conductivity	38.8	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM
TPH-D/O IN SOIL BY SW8015					SW8015B	Analyst: KKD
TPH DRO/ORO IN SOIL BY SW8015					SW3550C	
TPH (Diesel Range)	4,540	500		mg/Kg	50	5/25/2017 3:04:00 PM
TPH (Oil Range)	1,890	500		mg/Kg	50	5/25/2017 3:04:00 PM
Surr: 4-Terphenyl-d14	0	33 - 152	SD	%Rec	50	5/25/2017 3:04:00 PM

NOTES:

SD - Surrogate diluted out due to dilution.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	H Holding times for preparation or analysis exceeded
M Matrix Interference	ND Not Detected at the Reporting Limit	RL Reporting Limit
R RPD outside accepted recovery limits	SDL Sample detection limit	W Sample container temperature is out of limit as specified at testcode
S Spike Recovery outside accepted recovery limits		
U Analyte not detected		

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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

(consolidated)

WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/23/2017 9:50:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-020 **Matrix:** SOLID
Client Sample ID GC-25 24-26

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION		LDNR 29-B			Analyst: MMT	
Electrical Conductivity	41.0	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

PRELIMINARY



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

(consolidated)

WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/23/2017 10:05:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-021 **Matrix:** SOLID
Client Sample ID GC-25 32-34

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION		LDNR 29-B			Analyst: MMT	
Electrical Conductivity	72.7	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

PRELIMINARY



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 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

(consolidated)

WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/23/2017 10:25:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-022 **Matrix:** SOLID
Client Sample ID GC-25 40-42

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION		LDNR 29-B			Analyst: MMT	
Electrical Conductivity	42.2	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

PRELIMINARY



Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
 TEL: (337) 235-0483 FAX: (337) 233-6540
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Analytical Report

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WO#: **17050983**

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/23/2017 10:40:00 AM
Project: Guidry Campbell 9326-012-0100
Lab ID: 17050983-023 **Matrix:** SOLID
Client Sample ID GC-25 46-48

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ELECTRICAL CONDUCTIVITY @ SATURATION		LDNR 29-B			Analyst: MMT	
Electrical Conductivity	10.7	0.10	*	mmhos/cm	1	5/30/2017 4:45:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	H	Holding times for preparation or analysis exceeded
M	Matrix Interference	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike Recovery outside accepted recovery limits	SDL	Sample detection limit
U	Analyte not detected	W	Sample container temperature is out of limit as specified at testcode

PRELIMINARY



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Chain of Custody

Laboratory Number:

17050983

Company Name: Contact Name: Address: City, State Zip: Phone Number: Fax Number: E-mail Address:	Client Information: Icon Env Jason Sills 2049 Commercial Dr Port Allen La 70767 225 344 8490	Billing Information: Same	PO Number: Quote Number: Required QC Level: Bill Monthly: <input type="checkbox"/> Yes <input type="checkbox"/> No	Project Name/Number: Grindry Campbell 9326-012-0100 Sampler's Signature: Shipping Method: UPS / FedEx / NOW DHL / Element / Hand / Mail	Page 1 of 3 Matrix Code DW = Drinking Water WW = Waste Water GW = Ground Water AQ = Aqueous DT = 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:	Turn Time	(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container		Pres.	Requested Tests					Comments						
			Quantity	Type P=Plastic, G=Glass, V=Vial		HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	EC	SAR/ESP	CEC	Leachability		296 Metals	1/Ministark	PH-D/D			
<input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USDA/FDA <input checked="" type="checkbox"/> RECAP/RISC <input type="checkbox"/> Drinking Water <input type="checkbox"/> Distribution <input type="checkbox"/> Special <input type="checkbox"/> State <input type="checkbox"/> Other	<input type="checkbox"/> Standard RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input checked="" type="checkbox"/> Other ASAP																
Collection Information			Date	Time	Grab / Composite	Matrix											
Sample ID/Description																	
GC-23			0-2	5-22-17	1000	G	SOL	1	P	-	X	X	X	X	X	X	
GC-23			4-6		1005			2	P, G		X	X	X	X	X	X	
GC-23			8-10		1010			1	P		X	X	X	X	X	X	
GC-23			16-18		1025						X	X	X	X	X	X	
GC-23			22-24		1040						X	X	X	X	X	X	
GC-23			30-32		1055						X	X	X	X	X	X	
GC-23			36-38		1110						X	X	X	X	X	X	
GC-23			44-46		1130						X	X	X	X	X	X	
GC-24			0-2		1420						X	X	X	X	X	X	

	Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
1		5-23-17 / 1530		5-23-17 / 1530	Received at lab on ice? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 1.5°C
2					
3		6-23-17 / 1545		5-23-17 / 1545	

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 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

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Warsaw, IN
46580-2368 USA
P 574-267-3305
F 574-269-6569

3371 Cleveland Road, Suite 100A
South Bend, IN
46628-9780 USA
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F 574-273-5699

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Lafayette, LA
70508-3344 USA
P 337-235-0483
F 337-233-6540



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Chain of Custody

Laboratory Number:

17050983

Company Name: Ivon Env	Billing Information:	PO Number:	Project Name/Number: Grindry Campbell	Page 2 of 3
Contact Name:		Quote Number:	9326-012-000	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:		Required QC Level:	Sampler's Signature:	
City, State Zip:	same	Bill Monthly:	Shipping Method:	
Phone Number:	Ext:	<input type="checkbox"/> Yes	UPS / FedEx / NOW	
Fax Number:	Ext:	<input type="checkbox"/> No	DHL / Element / Hand / Mail	
E-mail Address:				

Which Regulations Apply:		Turn Time		(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container		Pres.	Requested Tests						Comments
<input type="checkbox"/> RCRA	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Standard	<input type="checkbox"/> RUSH		Quantity	Type P=Plastic, G=Glass, V=Vial		HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	EC	SAR/ESP	CEC	Leachate Cl	29B Metals	
<input type="checkbox"/> POTW	<input type="checkbox"/> Distribution	<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day	<input checked="" type="checkbox"/> Other ASAP										
<input type="checkbox"/> NPDES	<input type="checkbox"/> Special	<input type="checkbox"/> Grab / Composite												
<input type="checkbox"/> USDA/FDA	<input checked="" type="checkbox"/> State													
<input type="checkbox"/> RECAP/RISC	<input type="checkbox"/> Other													
Sample ID/Description		Collection Information		Matrix	Quantity	Type	Pres.	EC	SAR/ESP	CEC	Leachate Cl	29B Metals	% Moisture	TPH-D/O
GC-24	4-6	5-22-17	1425	SOL	1	P		X	X	X	X	X	X	
GC-24	8-10		1430					X	X	X	X	X	X	
GC-24	14-16		1440					X	X	X	X	X	X	
GC-24	20-22		1520					X	X	X	X	X	X	
GC-24	32-34		1550					X	X	X	X	X	X	
GC-24	46-48		1625					X	X	X	X	X	X	
GC-25	0-2	5-23-17	825		1	P		X	X	X	X	X	X	
GC-25	4-6		829		1	G		X	X	X	X	X	X	
GC-25	8-10		830		2	P, G		X	X	X	X	X	X	

	Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
1		5-23-17/1530		5/23/17/1530	
2					Received at lab on ice? OH
3		5-23-17/1545		5-23-17/1545	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 1.8°C

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Chain of Custody

Laboratory Number: **17050983**

Page **3** of **3**

Company Name: Contact Name: Address: City, State Zip: Phone Number: Fax Number: E-mail Address:	Client Information:		Billing Information:		PO Number:	Project Name/Number:	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
	Name: Luon Env					Guidry Campbell	
	Address: same				Quote Number:	9326-012-0100	
	City, State Zip:				Required QC Level	[Signature]	
	Phone Number: Ext:		Ext:		Bill Monthly	Shipping Method:	
	Fax Number:				<input type="checkbox"/> Yes	UPS / FedEx / NOW	
E-mail Address:				<input type="checkbox"/> No	DHL / Element / Hand / Mail		

Which Regulations Apply:		Turn Time		(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container		Pres.	Requested Tests				Comments	
<input type="checkbox"/> RCRA	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Standard	RUSH		Quantity	Type	HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	EC	Leachate C	ZPB Metals	TPH - D/D		% Moisture
<input type="checkbox"/> POTW	<input type="checkbox"/> Distribution	<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day		P=Plastic, G=Glass, V=Vial								
<input type="checkbox"/> NPDES	<input type="checkbox"/> Special	<input checked="" type="checkbox"/> Other	<input checked="" type="checkbox"/> Other										
<input type="checkbox"/> USDA/FDA	<input type="checkbox"/> State												
<input checked="" type="checkbox"/> RECAP/RISC	<input type="checkbox"/> Other												
Sample ID/Description		Collection Information			Matrix	Quantity	Type	Pres.	EC	Leachate C	ZPB Metals	TPH - D/D	% Moisture
GC-25	16-18	5-23-17	930	G	SOL	1	G	-	X	X	X	X	
GC-25	24-26	↓	950	↓	↓	↓	P	↓	X	X	X	X	
GC-25	32-34	↓	1005	↓	↓	↓	↓	↓	X	X	X	X	
GC-25	40-42	↓	1025	↓	↓	↓	↓	↓	X	X	X	X	
GC-25	46-48	↓	1040	↓	↓	↓	↓	↓	X	X	X	X	

	Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
1	[Signature]	5-23-17/1530	[Signature]	5-23-17/1530	
2	[Signature]				Received at lab on ice? YH
3	[Signature]	5-23-17/1545	[Signature]	5-23-17/1545	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: 1.8°C

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Element Materials Technology Lafayette
 2417 W. Pinhook Road
 Lafayette, LA 70508-3344
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 Website: www.element.com

Analytical Report

(consolidated)

WO#: 17051117

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/26/2017 10:20:00 AM
Project: Guidry 9326-012-0100
Lab ID: 17051117-001 **Matrix:** AQUEOUS
Client Sample ID GC-23 A

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
TPH-D/O IN WATER BY SW8015					SW8015B	Analyst: CRM
TPH DRO/ORO IN WATER BY SW8015					SW3511	
TPH (Diesel Range)	0.708	0.124		mg/L	1	5/31/2017 11:24:00 AM
TPH (Oil Range)	0.248	0.114		mg/L	1	5/31/2017 11:24:00 AM
Surr: 4-Terphenyl-d14	72.8	51.4 - 146		%Rec	1	5/31/2017 11:24:00 AM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8015B	Analyst: KKD
TPH-GRO IN WATER BY SW8015						
TPH (Gasoline Range)	< 0.150	0.150		mg/L	1	6/1/2017 11:20:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	98.4	70 - 130		%Rec	1	6/1/2017 11:20:00 AM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8021B	Analyst: KKD
BTEX IN WATER BY SW8021						
Benzene	0.00820	0.00500		mg/L	1	6/1/2017 11:20:00 AM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	6/1/2017 11:20:00 AM
Toluene	< 0.0100	0.0100		mg/L	1	6/1/2017 11:20:00 AM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	6/1/2017 11:20:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	79.8	70 - 130		%Rec	1	6/1/2017 11:20:00 AM
MERCURY IN GROUND WATER, TOTAL					SW7470A	Analyst: MRM
Mercury	< 0.000200	0.000200		mg/L	1	5/31/2017 2:05:23 PM
INORGANIC ANIONS IN WATER BY IC					SW9056A	Analyst: SGP
Chloride	35,800	500		mg/L	2000	5/30/2017 12:21:58 PM
Sulfate	< 50.0	50.0		mg/L	200	5/30/2017 3:06:57 PM
METALS IN WATER BY ICP, TOTALS					SW6010B	Analyst: STS
Arsenic	< 0.0100	0.0100		mg/L	1	5/30/2017 9:40:18 PM
Barium	44.0	1.00		mg/L	100	5/30/2017 10:04:29 PM
Cadmium	0.116	0.00500		mg/L	1	5/30/2017 9:40:18 PM
Calcium	5,520	50.0		mg/L	100	5/30/2017 10:04:29 PM

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference
 ND Not Detected at the Reporting Limit RL Reporting Limit
 S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode

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

Analytical Report

(consolidated)

WO#: 17051117

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/26/2017 10:20:00 AM
Project: Guidry 9326-012-0100
Lab ID: 17051117-001 **Matrix:** AQUEOUS
Client Sample ID GC-23 A

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS IN WATER BY ICP, TOTALS			SW6010B		Analyst: STS	
Chromium	0.0311	0.0100		mg/L	1	5/30/2017 9:40:18 PM
Iron	4.56	0.100		mg/L	10	5/30/2017 10:00:37 PM
Lead	< 0.0100	0.0100		mg/L	1	5/30/2017 9:40:18 PM
Magnesium	2,110	50.0		mg/L	100	5/30/2017 10:04:29 PM
Manganese	76.3	1.00		mg/L	100	5/30/2017 10:04:29 PM
Potassium	79.8	5.00		mg/L	1	5/30/2017 9:40:18 PM
Selenium	0.304	0.0200		mg/L	1	5/30/2017 9:40:18 PM
Sodium	11,500	1,000		mg/L	100	5/30/2017 10:04:29 PM
Strontium	36.5	1.00		mg/L	100	5/30/2017 10:04:29 PM
Zinc	0.0336	0.0100		mg/L	1	5/30/2017 9:40:18 PM
ALKALINITY; TOTAL, CARB, BICARB			SM2320 B		Analyst: TBB	
Alkalinity, Bicarbonate (As CaCO3)	128	10.0		mgCaCO3/L	1	5/31/2017 8:43:17 AM
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0		mgCaCO3/L	1	5/31/2017 8:43:17 AM
Alkalinity, Total (As CaCO3)	128	10.0		mgCaCO3/L	1	5/31/2017 8:43:17 AM
TOTAL DISSOLVED SOLIDS			SM2540C		Analyst: GMS	
Total Dissolved Solids (Residue, Filterable)	69,300	2,000		mg/L	100	5/26/2017 4:26:00 PM

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference
 ND Not Detected at the Reporting Limit RL Reporting Limit
 S Spike Recovery outside accepted recovery limits SDL Sample detection limit
 U Analyte not detected W Sample container temperature is out of limit as specified at testcode

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

Analytical Report

(consolidated)

WO#: 17051117

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/26/2017 12:00:00 PM
Project: Guidry 9326-012-0100
Lab ID: 17051117-002 **Matrix:** AQUEOUS
Client Sample ID GC-23 B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
TPH-D/O IN WATER BY SW8015					SW8015B	Analyst: CRM
TPH DRO/ORO IN WATER BY SW8015					SW3511	
TPH (Diesel Range)	< 0.127	0.127		mg/L	1	5/31/2017 12:01:00 PM
TPH (Oil Range)	< 0.118	0.118		mg/L	1	5/31/2017 12:01:00 PM
Surr: 4-Terphenyl-d14	89.1	51.4 - 146		%Rec	1	5/31/2017 12:01:00 PM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8015B	Analyst: KKD
TPH-GRO IN WATER BY SW8015						
TPH (Gasoline Range)	< 0.150	0.150		mg/L	1	6/1/2017 11:47:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	103	70 - 130		%Rec	1	6/1/2017 11:47:00 AM
BTEX/TPH-G IN WATER BY SW8021/8015					SW8021B	Analyst: KKD
BTEX IN WATER BY SW8021						
Benzene	< 0.00500	0.00500		mg/L	1	6/1/2017 11:47:00 AM
Ethylbenzene	< 0.00500	0.00500		mg/L	1	6/1/2017 11:47:00 AM
Toluene	< 0.0100	0.0100		mg/L	1	6/1/2017 11:47:00 AM
Xylenes, Total	< 0.0500	0.0500		mg/L	1	6/1/2017 11:47:00 AM
Surr: alpha, alpha, alpha-Trifluorotoluene	108	70 - 130		%Rec	1	6/1/2017 11:47:00 AM
MERCURY IN GROUND WATER, TOTAL					SW7470A	Analyst: MRM
Mercury	< 0.000200	0.000200		mg/L	1	5/31/2017 1:52:43 PM
INORGANIC ANIONS IN WATER BY IC					SW9056A	Analyst: SGP
Chloride	1,180	25.0		mg/L	100	5/30/2017 12:35:41 PM
Sulfate	< 12.5	12.5		mg/L	50	5/30/2017 3:20:41 PM
METALS IN WATER BY ICP, TOTALS					SW6010B	Analyst: STS
Arsenic	< 0.0100	0.0100		mg/L	1	5/30/2017 10:08:35 PM
Barium	0.723	0.0100		mg/L	1	5/30/2017 10:08:35 PM
Cadmium	< 0.00500	0.00500		mg/L	1	5/30/2017 10:08:35 PM
Calcium	232	0.500		mg/L	1	5/30/2017 10:08:35 PM

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference
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Analytical Report

(consolidated)

WO#: 17051117

Date Reported

CLIENT: ICON Environmental Services **Collection Date:** 5/26/2017 12:00:00 PM
Project: Guidry 9326-012-0100
Lab ID: 17051117-002 **Matrix:** AQUEOUS
Client Sample ID GC-23 B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
METALS IN WATER BY ICP, TOTALS			SW6010B		Analyst: STS	
Chromium	< 0.0100	0.0100		mg/L	1	5/30/2017 10:08:35 PM
Iron	10.2	0.0100		mg/L	1	5/30/2017 10:08:35 PM
Lead	< 0.0100	0.0100		mg/L	1	5/30/2017 10:08:35 PM
Magnesium	78.8	0.500		mg/L	1	5/30/2017 10:08:35 PM
Manganese	2.45	0.0100		mg/L	1	5/30/2017 10:08:35 PM
Potassium	< 5.00	5.00		mg/L	1	5/30/2017 10:08:35 PM
Selenium	< 0.0200	0.0200		mg/L	1	5/30/2017 10:08:35 PM
Sodium	517	10.0		mg/L	1	5/30/2017 10:08:35 PM
Strontium	1.25	0.0100		mg/L	1	5/30/2017 10:08:35 PM
Zinc	< 0.0100	0.0100		mg/L	1	5/30/2017 10:08:35 PM
ALKALINITY; TOTAL, CARB, BICARB			SM2320 B		Analyst: TBB	
Alkalinity, Bicarbonate (As CaCO3)	350	10.0		mgCaCO3/L	1	5/31/2017 8:43:17 AM
Alkalinity, Carbonate (As CaCO3)	< 10.0	10.0		mgCaCO3/L	1	5/31/2017 8:43:17 AM
Alkalinity, Total (As CaCO3)	350	10.0		mgCaCO3/L	1	5/31/2017 8:43:17 AM
TOTAL DISSOLVED SOLIDS			SM2540C		Analyst: GMS	
Total Dissolved Solids (Residue, Filterable)	2,480	100		mg/L	5	5/26/2017 4:26:00 PM

Qualifiers: H Holding times for preparation or analysis exceeded M Matrix Interference
 ND Not Detected at the Reporting Limit RL Reporting Limit
 S Spike Recovery outside accepted recovery limits SDL Sample detection limit
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PRELIMINARY



element™

Chain of Custody

Laboratory Number:

17051117

Client Information:		Billing Information:		PO Number:	Project Name/Number:	Page 1 of 1
Company Name: <u>ICON Environmental</u>					<u>Gudry</u>	Matrix Code
Contact Name: <u>Jasen Sills</u>				Quote Number:	<u>9326-012-0100</u>	DW = Drinking Water
Address: <u>2049 Commercial Dr.</u>				Sampler's Signature:		WW = Waste Water
City, State Zip: <u>Port Allen, LA 70767</u>				Required QC Level:	<u>Standard</u>	GW = Ground Water
Phone Number: <u>(225) 344-8490</u>		Ext: <u>344-8490</u>		Bill Monthly:	<input type="checkbox"/> Yes	AQ = Aqueous
E-mail Address:				<input type="checkbox"/> No	Shipping Method:	OT = Other
					UPS / FedEx / NOW	SL = Sludge SOL = Solid
					DHL / Element / <u>Hand</u> / Mail	O = Oil SO = Soil
						F = Food SW = Swab
						NG = Natural Gas
						NGL = Natural Gas Liquid
						PW = Produced Water
						CF = Completion Fluid

Which Regulations Apply:		Turn Time		(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container	Pres.	Requested Tests						Comments	
<input type="checkbox"/> RCRA	<input type="checkbox"/> Drinking Water	<input type="checkbox"/> Standard	<input type="checkbox"/> RUSH				Quantity	Type P=Plastic, G=Glass, V=Vial	HCl, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ S ₂ O ₃	BTEX/TPH-G	TPH-D/O	TDS/CI-		Cations
<input type="checkbox"/> POTW	<input type="checkbox"/> Distribution	<input type="checkbox"/> 1 Day	<input type="checkbox"/> 2 Day											
<input type="checkbox"/> NPDES	<input type="checkbox"/> Special	<input checked="" type="checkbox"/> Other	<u>ASAP Please</u>											
<input type="checkbox"/> USDA/FDA	<input type="checkbox"/> State													
<input type="checkbox"/> RECAP/RISC	<input type="checkbox"/> Other													
Sample ID/Description		Collection Information		Matrix	Quantity	Type	Pres.	BTEX/TPH-G	TPH-D/O	TDS/CI-	Cations	Anions	Total Metals	Comments
GC-23A		Date: 5-26-17	Time: 1000	G	8	P, G, V	HCl, HNO ₃	X	X	X	X	X	X	Metals As, Ba, Cd, Cr, Pb, Fe, Mn, Se Sr, Zn, Hg
GC-23B		Date: 5-26-17	Time: 1800	G	8	P, G, V	HCl, HNO ₃	X	X	X	X	X	X	Cations Ca, Mg, K, Na
														Anions ALK-Carbonate ALK-Bicarbonate SO ₄

	Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
1		5-26-17		5-26-17	Received at lab on ice? <u>JA</u>
2					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Temp: <u>9.32</u>
3					

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 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 574-269-6569

3371 Cleveland Road, Suite 100A
South Bend, IN
46628-9780 USA
P 574-277-0707
F 574-273-5699

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