ALISO CANYON GAS LEAK DISASTER

Community Pool Water Sampling Protocol Aliso Canyon Natural Gas Leak Disaster Porter Ranch Community Los Angeles, California

The Los Angeles County Department of Public Health (Public Health) has requested that water samples be collected from three community pools within the vicinity of the Aliso Canyon Natural Gas Incident to assess if the Aliso Canyon Facility Well SS-25 gas leak disaster and/or subsequent well sealing operations may have affected the water quality. Public Health selected community pools in areas of the Porter Ranch community that had higher rates of relocation, symptom reporting and oily residue on exterior surfaces. The purpose of this pool water sampling protocol is to provide guidance regarding the collection and analysis of water from the selected community pools. The resulting data will be used to assess potential public health impacts of the gas leak disaster on water quality in pools.

The water samples will be collected by dipping a dedicated laboratory supplied glass jar into the pool and decanting the water directly into laboratory supplied bottles appropriate for the corresponding analytical test method. Nitrile gloves will be worn during the water collection. The dedicated glass jar and the nitrile gloves will be disposed of as municipal waste between each tested pool. Each sample container will be marked in the field with the sampling location ID, date and time of sample collection, sampler's name, type of analysis, and preservatives used, if any. Each of the sample containers will be securely packed in a cooler and stored in ice to be chilled to approximately 40 Celsius in preparation for delivery to Eurofins Calscience in Garden Grove, California, a State of California Certified laboratory. An entry will be made on a chain-of-custody form supplied by the laboratory for each sample that is submitted to the laboratory for analysis.

The chemical category and test method that will be analyzed for each sample, bottle type, preservative, and holding time is summarized in the following table:

Laboratory Analysis	Bottle Type	Preservative	Holding Time
Total Petroleum	500 mL amber	Upprosorvod	7 days until
Hydrocarbons	glass bottle,	Cool 40C	extraction; 40 days after
(C6-C44), EPA 8015	Teflon-lined Cap	0001, 4°0	extraction
Metals, EPA 6010	250 mL	HNO3 to pH <2	180 dave (motale)
Mercury, EPA	Polyethylene		28 dove (mercury)
7471A	Bottle		zo days (mercury)

Water samples submitted to the laboratory will be analyzed on an expedited turnaround time basis (48-hrs) and in accordance with standard QA/QC protocol.

Community Pool Sampling Results Available

The Los Angeles County Department of Public Health sampled three community pools within the vicinity of the Aliso Canyon Storage Facility to assess if the SS-25 gas leak disaster may have affected the water quality. Three community pools were selected in areas of the Porter Ranch community that had higher rates of relocation, symptom reporting and oily residue on exterior surfaces: Highlands Community Pool, Porter Ranch Estates Community Pool and Bella Vista Community Main and Kiddie Pools.

On June 22 and July 9, 2016, one water sample was collected from each pool and tested for petroleum hydrocarbons and metals, according to approved US EPA methods. The sampling protocol targeted these is attached.

The Public Health Assessment dated May 13, 2016 found that a fingerprint of five metals (aluminum, barium, iron, manganese and vanadium) were identified in household dust and appear to be related to drilling operations during the SS-25 incident. As shown in the table below, two of the five metals of concern were found in the community pools sampled. The pool sample results for these five metals were compared to drinking water standards in the table below. Barium was found at levels ranging from 0.085 to 0.422 mg/L, which are below the drinking water standard of 1 mg/L. Vanadium was detected at 0.012 and 0.0254 mg/kg, which are below the drinking water standard of 0.05 mg/L. The lab reports are attached.

Metals of Concern	California Drinking Water Standard [*] (mg/L)	Bella Vista - Main Pool	Bella Vista - Kiddie Pool	Porter Ranch Estates	Highlands
Aluminum	1	Not Detected	Not Detected	Not Detected	Not Detected
Barium	1	0.134	0.422	0.085	0.275
Iron	0.3	Not Detected	Not Detected	Not Detected	Not Detected
Manganese	0.05	Not Detected	Not Detected	Not Detected	Not Detected
Vanadium	0.05	0.012	0.0254	Not Detected	Not Detected

*The California Drinking Water Standard sources are priortiized as follows: California Maximum Contaminant Level (MCL), Secondary MCL and Notification Level. The standards for aluminum and barium are based on the California MCL, iron and managnese are based on the secondary MCL, and vanadium is based on the notification level.

WORK ORDER NUMBER: 16-06-1766

Calscience



🔅 eurofins



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For Client: Leighton Consulting, Inc. Client Project Name: Porter Ranch / 603287049 Attention: Meredith Church 17781 Cowan Suite 140 Irvine, CA 92614-6009

Nicole Scott

Approved for release on 07/06/2016 by: Nicole Scott Project Manager

ResultLink >

Email your PM >



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

7440 Lincoln Way, Garden Grove, CA 92841-1432 * TEL: (714) 895-5494 * FAX: (714) 894-7501 * www.calscience.com

CA ELAP ID: 2944 | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109

🛟 eurofins

Calscience

Contents

Client Project Name:	Porter Ranch / 603287049
Work Order Number:	16-06-1766

1	Work Order Narrative.	3
2	Client Sample Data	4 4 6 8
3	Quality Control Sample Data	9 9 11
4	Sample Analysis Summary	14
5	Glossary of Terms and Qualifiers.	15
6	Chain-of-Custody/Sample Receipt Form	16

Work Order: 16-06-1766

Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/24/16. They were assigned to Work Order 16-06-1766.

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

Holding Times:

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

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

Quality Control:

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

Subcontractor Information:

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

Additional Comments:

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

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



Analytical Report

Leighton Consulting, Inc.	Date Received:	06/24/16
17781 Cowan, Suite 140	Work Order:	16-06-1766
Irvine, CA 92614-6009	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)
	Units:	ug/L
Project: Porter Ranch / 603287049		Page 1 of 2

Project: Porter Ranch / 603287049

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
PT-BV-1	16-06-1766-1-A	06/22/16 08:15	Aqueous	GC 48	06/27/16	06/27/16 18:52	160627B12
Parameter		<u>Result</u>	RL		<u>DF</u>	Qualif	iers
C6		ND	91		1.00		
C7		ND	91		1.00		
C8		ND	91		1.00		
C9-C10		ND	91		1.00		
C11-C12		ND	91		1.00		
C13-C14		ND	91		1.00		
C15-C16		ND	91		1.00		
C17-C18		ND	91		1.00		
C19-C20		ND	91		1.00		
C21-C22		ND	91		1.00		
C23-C24		ND	91		1.00		
C25-C28		ND	91		1.00		
C29-C32		ND	91		1.00		
C33-C36		ND	91		1.00		
C37-C40		ND	91		1.00		
C41-C44		ND	91		1.00		
C6-C44 Total		ND	10	0	1.00		
Surrogate		<u>Rec. (%)</u>	<u>Co</u>	ntrol Limits	<u>Qualifiers</u>		
n-Octacosane		101	68 [.]	-140			



Leighton Consulting, Inc.	Date Received:	06/24/16
17781 Cowan, Suite 140	Work Order:	16-06-1766
Irvine, CA 92614-6009	Preparation:	EPA 3510C
	Method:	EPA 8015B (M)
	Units:	ug/L
Project: Porter Ranch / 603287049		Page 2 of 2

Project: Porter Ranch / 603287049

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-498-376	N/A	Aqueous	GC 48	06/27/16	06/27/16 18:06	160627B12
Parameter		<u>Result</u>	RL	=	DF	Qualif	iers
C6		ND	10	0	1.00		
C7		ND	10	0	1.00		
C8		ND	10	0	1.00		
C9-C10		ND	10	0	1.00		
C11-C12		ND	10	0	1.00		
C13-C14		ND	10	0	1.00		
C15-C16		ND	10	0	1.00		
C17-C18		ND	10	0	1.00		
C19-C20		ND	10	0	1.00		
C21-C22		ND	10	0	1.00		
C23-C24		ND	10	0	1.00		
C25-C28		ND	10	0	1.00		
C29-C32		ND	10	0	1.00		
C33-C36		ND	10	0	1.00		
C37-C40		ND	10	0	1.00		
C41-C44		ND	10	0	1.00		
C6-C44 Total		ND	10	0	1.00		
Surrogate		<u>Rec. (%)</u>	<u>Cc</u>	ontrol Limits	<u>Qualifiers</u>		
n-Octacosane		97	68	-140			



Return to Contents

Leighton Consulting, Inc.	Date Received:	06/24/16
17781 Cowan, Suite 140	Work Order:	16-06-1766
Irvine, CA 92614-6009	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
	Units:	mg/L
Project: Porter Ranch / 603287049		Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID	
PT-BV-1	16-06-1766-1-B	06/22/16 08:15	Aqueous	ICP 7300	06/24/16	06/30/16 13:50	160624LA5	
Parameter		<u>Result</u>	RL		DF	Qualifiers		
Antimony		ND	0.0	0150	1.00			
Arsenic		0.0424	0.0	0100	1.00			
Barium		0.134	0.0	0100	1.00			
Beryllium		ND	0.0	0100	1.00			
Cadmium		ND	0.0	0100	1.00			
Chromium		ND	0.0	0100	1.00			
Cobalt		ND	0.0	0100	1.00			
Copper		0.0100	0.0	0100	1.00			
Lead		ND	0.0	0100	1.00			
Molybdenum		0.0312	0.0	0100	1.00			
Nickel		ND	0.0	0100	1.00			
Phosphorus		ND	0.1	100	1.00			
Selenium		ND	0.0	0150	1.00			
Silver		ND	0.0	00500	1.00			
Thallium		ND	0.0	0150	1.00			
Vanadium		0.0120	0.0	0100	1.00			
Aluminum		ND	0.0)500	1.00			
Calcium		547	0.1	100	1.00			
Iron		ND	0.1	100	1.00			
Magnesium		30.5	0.1	100	1.00			
Manganese		ND	0.0	00500	1.00			
Potassium		23.3	0.5	500	1.00			
Strontium		1.49	0.0)200	1.00			
Tin		ND	0.0)500	1.00			
Titanium		ND	0.0	0300	1.00			
Boron		1.15	0.0)200	1.00			
Zinc		0.0457	0.0	0100	1.00			



Analytical Report

Leighton Consulting, Inc.	Date Received:	06/24/16
17781 Cowan, Suite 140	Work Order:	16-06-1766
Irvine, CA 92614-6009	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
	Units:	mg/L
Project: Porter Ranch / 603287049		Page 2 of 2

Project: Porter Ranch / 603287049

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-003-15899	N/A	Aqueous	ICP 7300	06/24/16	06/30/16 11:44	160624LA5
Parameter		Result	RL	=	DF	Qua	<u>lifiers</u>
Antimony		ND	0.0	0150	1.00		
Arsenic		ND	0.0	0100	1.00		
Barium		ND	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		ND	0.0	0100	1.00		
Cobalt		ND	0.0	0100	1.00		
Copper		ND	0.0	0100	1.00		
Lead		ND	0.0	0100	1.00		
Molybdenum		ND	0.0	0100	1.00		
Nickel		ND	0.0	0100	1.00		
Phosphorus		ND	0.1	100	1.00		
Selenium		ND	0.0	0150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	0150	1.00		
Vanadium		ND	0.0	0100	1.00		
Aluminum		ND	0.0	0500	1.00		
Calcium		ND	0.1	100	1.00		
Iron		ND	0.1	100	1.00		
Magnesium		ND	0.1	100	1.00		
Manganese		ND	0.0	00500	1.00		
Potassium		ND	0.8	500	1.00		
Strontium		ND	0.0	0200	1.00		
Tin		ND	0.0	0500	1.00		
Titanium		ND	0.0	0300	1.00		
Boron		ND	0.0	0200	1.00		
Zinc		ND	0.0	0100	1.00		



Analytical Report

Leighton Consulting, Inc.			Date Receiv	ved:			06/24/16
17781 Cowan, Suite 140			Work Order	:			16-06-1766
Irvine, CA 92614-6009			Preparation	:		EP	A 7470A Total
			Method:				EPA 7470A
			Units:				mg/L
Project: Porter Ranch / 603287049						Pa	ge 1 of 1
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
PT-BV-1	16-06-1766-1-B	06/22/16 08:15	Aqueous	Mercury 04	06/27/16	06/27/16 19:09	160627LA2
Parameter		Result	RL		DF	Qua	lifiers
Mercury		ND	0.0	00500	1.00		
Method Blank	099-04-008-7905	N/A	Aqueous	Mercury 04	06/27/16	06/27/16 19:05	160627LA2
Parameter		<u>Result</u>	<u>RL</u>		DF	<u>Qua</u>	<u>lifiers</u>
Mercury		ND	0.0	00500	1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit. Return to Contents

Leighton Consulting, Inc.	Date Received:	06/24/16
17781 Cowan, Suite 140	Work Order:	16-06-1766
Irvine, CA 92614-6009	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
Project: Porter Ranch / 603287049		Page 1 of 2

Quality Control Sample ID	Туре		Matrix	I	nstrument	Date Prepared	Date Anal	yzed	MS/MSD Bat	ch Number
16-06-1774-1	Sample		Aqueous	l	CP 7300	06/24/16	06/28/16	13:05	160624SA5	
16-06-1774-1	Matrix Spike		Aqueous	I	CP 8300	06/24/16	06/28/16	13:06	160624SA5	
16-06-1774-1	Matrix Spike I	Duplicate	Aqueous	l.	CP 7300	06/24/16	06/30/16	14:06	160624SA5	
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	<u>MS</u> Conc.	<u>MS</u> %Rec	<u>. MSD</u> . <u>Conc.</u>	<u>MSD</u> <u>%Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Antimony	0.01940	0.5000	0.5076	98	0.5130	99	72-132	1	0-10	
Arsenic	ND	0.5000	0.5413	108	0.5273	105	80-140	3	0-11	
Barium	0.1537	0.5000	0.7150	112	0.6416	98	87-123	11	0-6	4
Beryllium	ND	0.5000	0.5724	114	0.5052	101	89-119	12	0-8	4
Cadmium	ND	0.5000	0.5664	113	0.5018	100	82-124	12	0-7	4
Chromium	ND	0.5000	0.5641	113	0.5030	101	86-122	11	0-8	4
Cobalt	ND	0.5000	0.5858	117	0.5000	100	83-125	16	0-7	4
Copper	ND	0.5000	0.5656	113	0.4929	99	78-126	14	0-7	4
Lead	ND	0.5000	0.5269	105	0.4963	99	84-120	6	0-7	
Molybdenum	ND	0.5000	0.5367	107	0.4983	100	78-126	7	0-7	
Nickel	0.01595	0.5000	0.5558	108	0.5194	101	84-120	7	0-7	
Phosphorus	ND	0.5000	0.5792	116	0.5457	109	80-140	6	0-6	
Selenium	0.03054	0.5000	0.5531	105	0.5125	96	79-127	8	0-9	
Silver	ND	0.2500	0.2800	112	0.2471	99	86-128	12	0-7	4
Thallium	ND	0.5000	0.5282	106	0.4976	100	79-121	6	0-8	
Vanadium	0.01362	0.5000	0.5594	109	0.5044	98	88-118	10	0-7	4
Aluminum	0.06226	0.5000	0.6400	116	0.5576	99	73-145	14	0-16	
Calcium	27.36	0.5000	27.42	4X	25.94	4X	77-113	4X	0-11	Q
Iron	0.5388	0.5000	0.8238	57	0.7022	33	65-149	16	0-21	3
Magnesium	13.69	0.5000	14.41	4X	12.57	4X	56-140	4X	0-11	Q
Manganese	0.007114	0.5000	0.5635	111	0.5052	100	86-116	11	0-7	4
Potassium	3.091	5.000	8.250	103	7.798	94	83-131	6	0-7	
Strontium	0.4314	0.5000	0.9468	103	0.8708	88	81-123	8	0-6	4
Tin	ND	0.5000	0.5539	111	0.5443	109	49-151	2	0-5	
Titanium	ND	0.5000	0.5686	114	0.5050	101	92-128	12	0-5	4
Boron	0.3751	0.5000	0.8472	94	0.7625	77	81-135	11	0-7	3,4
Zinc	ND	0.5000	0.5800	116	0.5274	105	89-131	10	0-8	4

🛟 eurofins

Quality Control - Spike/Spike Duplicate

Leighton Consulting, Inc.				Da	ate Rec	eived:					06/24/16
17781 Cowan, Suite 140				Wo	ork Ord	ler:				16	6-06-1766
Irvine, CA 92614-6009				Pre	eparatio	on:				EPA 74	70A Total
				Me	ethod:					Eł	PA 7470A
Project: Porter Ranch / 60328	37049									Page 2	of 2
Quality Control Sample ID	Туре		Matrix		Instrum	ent	Date Prepared	Date Ana	yzed	MS/MSD Bat	ch Number
PT-BV-1	Sample		Aqueous		Mercur	y 04	06/27/16	06/27/16	19:09	160627SA2	
PT-BV-1	Matrix Spike		Aqueous		Mercur	y 04	06/27/16	06/27/16	19:12	160627SA2	
PT-BV-1	Matrix Spike	Duplicate	Aqueous		Mercur	y 04	06/27/16	06/27/16	19:21	160627SA2	
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	<u>MS</u> Conc.	<u>MS</u> %Re	<u>N</u>	<u> MSD</u> Conc.	<u>MSD</u> %Rec.	%Rec. CL	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Mercury	ND	0.01000	0.009618	96	C	0.009612	96	55-133	0	0-20	

RPD: Relative Percent Difference. CL: Control Limits

🛟 eurofins

Leighton Consulting, Inc.			Date Receive	ed:		06/24/16
17781 Cowan, Suite 140			Work Order:			16-06-1766
Irvine, CA 92614-6009			Preparation:			EPA 3510C
			Method:			EPA 8015B (M)
Project: Porter Ranch / 60328	7049					Page 1 of 3
Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-498-376	LCS	Aqueous	GC 48	06/27/16	06/27/16 18:21	160627B12
099-15-498-376	LCSD	Aqueous	GC 48	06/27/16	06/27/16 18:36	160627B12

099-15-498-376	LCSD	Αqι	ieous	GC 48	06/27/16	06/27	7/16 18:36	160627B12	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	<u>%Rec. CL</u>	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
TPH as Diesel	4000	4296	107	4230	106	75-117	2	0-13	

RPD: Relative Percent Difference. CL: Control Limits

🛟 eurofins Calscience

Leighton Consulting, Inc.	Date Received:	06/24/16
17781 Cowan, Suite 140	Work Order:	16-06-1766
Irvine, CA 92614-6009	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
Project: Porter Ranch / 603287049		Page 2 of 3

Project: Porter Ranch / 603287049

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepa	red Date Analyzo	ed LCS Batch N	umber
097-01-003-15899	LCS	Aqueou	IS ICP 8300	06/24/16	06/28/16 19:	29 160624LA5	
Parameter	·	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	<u>Qualifiers</u>
Antimony		0.5000	0.4892	98	80-120	73-127	
Arsenic		0.5000	0.5024	100	80-120	73-127	
Barium		0.5000	0.5266	105	80-120	73-127	
Beryllium		0.5000	0.4971	99	80-120	73-127	
Cadmium		0.5000	0.5330	107	80-120	73-127	
Chromium		0.5000	0.5234	105	80-120	73-127	
Cobalt		0.5000	0.5809	116	80-120	73-127	
Copper		0.5000	0.5605	112	80-120	73-127	
Lead		0.5000	0.5243	105	80-120	73-127	
Molybdenum		0.5000	0.4991	100	80-120	73-127	
Nickel		0.5000	0.5516	110	80-120	73-127	
Phosphorus		0.5000	0.5308	106	80-120	73-127	
Selenium		0.5000	0.4887	98	80-120	73-127	
Silver		0.2500	0.2698	108	80-120	73-127	
Thallium		0.5000	0.5085	102	80-120	73-127	
Vanadium		0.5000	0.4910	98	80-120	73-127	
Aluminum		0.5000	0.5705	114	80-120	73-127	
Calcium		0.5000	0.5244	105	80-120	73-127	
Iron		0.5000	0.5783	116	80-120	73-127	
Magnesium		0.5000	0.5995	120	80-120	73-127	
Manganese		0.5000	0.5348	107	80-120	73-127	
Potassium		5.000	5.253	105	80-120	73-127	
Strontium		0.5000	0.5259	105	80-120	73-127	
Tin		0.5000	0.5188	104	80-120	73-127	
Titanium		0.5000	0.5145	103	80-120	73-127	
Boron		0.5000	0.5061	101	80-120	73-127	
Zinc		0.5000	0.5673	113	80-120	73-127	

Total number of LCS compounds: 27 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



Leighton Consulting, Inc.	Date Received:	06/24/16
17781 Cowan, Suite 140	Work Order:	16-06-1766
Irvine, CA 92614-6009	Preparation:	EPA 7470A Total
	Method:	EPA 7470A
Project: Porter Ranch / 603287049		Page 3 of 3

Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-04-008-7905	LCS	Aqueous	Mercury 04	06/27/16	06/27/16 19:07	160627LA2
Parameter		Spike Added	Conc. Recove	red LCS %Re	ec. <u>%Rec</u>	. CL Qualifiers
Mercury		0.01000	0.009365	94	80-120	0

RPD: Relative Percent Difference. CL: Control Limits

Page 1 of 1



Calscience

Work Order: 16-06-1766

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 7470A	EPA 7470A Total	776	Mercury 04	1
EPA 8015B (M)	EPA 3510C	972	GC 48	1

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



Calscience

Work Order: 16-06-1766

Glossary of Terms and Qualifiers

Nork Order:	16-06-1766	Page 1 of 1
Qualifiers	Definition	
*	See applicable analysis comment.	
<	Less than the indicated value.	
>	Greater than the indicated value.	
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample dat clarification.	a was reported without further
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank sur in control and, therefore, the sample data was reported without further clarification.	rogate spike compound was
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspe associated LCS recovery was in control.	ected matrix interference. The
4	The MS/MSD RPD was out of control due to suspected matrix interference.	
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matr	ix interference.
6	Surrogate recovery below the acceptance limit.	
7	Surrogate recovery above the acceptance limit.	
В	Analyte was present in the associated method blank.	
BU	Sample analyzed after holding time expired.	
BV	Sample received after holding time expired.	
CI	See case narrative.	
Е	Concentration exceeds the calibration range.	
ET	Sample was extracted past end of recommended max. holding time.	
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.	
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard b were also present (or detected).	out heavier hydrocarbons
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard to also present (or detected).	out lighter hydrocarbons were
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection li estimated.	mit. Reported value is
JA	Analyte positively identified but quantitation is an estimate.	
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).	
ND	Parameter not detected at the indicated reporting limit.	
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample e concentration by a factor of four or greater.	xceeding the spike
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.	
Х	% Recovery and/or RPD out-of-range.	
Z	Analyte presence was not confirmed by second column or GC/MS analysis.	
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % more reported on a wet weight basis.	sisture. All QC results are
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holdi (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as bein stated holding time unless received at the laboratory within 15 minutes of the collection time.	ng time of <= 15 minutes g received outside of the

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

	3	Γ					Γ										T			{			ision
COR						erel									_					Ja I		\sim	-01 Rev
× 7 8. ∕	/ "					a) al =	Ļ													5:	ge/	000	2014-07
				NO.:		ĴĮ														Time:	Time: /	Time:	
⊂OS.	46	-		r quote		ENN CAN				9.812 🗆	6612 🗆 961	Z 🗆 (I,	Cr(V						-	د			
Ч Ц О	ATE:		:	NTACT O		R(S): (PF CCCC CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC			×۷	⊳2/0Z09 □ X	272/0109	eletəM	221	X							2	114	
IAIN		P.O. NO		LAB COI			С Ц	leeded.		MIS	s 0∠Z8 □ 0∠Z	:8 🗆 si	-IAG							$]$ \mathcal{C}	5	44	
ΰ		ľ						nk as r			5)	808) s	PCE							Date:		Date:	
			49				NV	ill in bla			(1808)	səbioi	səd]		۲	
			0 1					oox or f			(022	(8) sO	ons									Z	
			5 2 2		5	ODE:	Ĭ	check t	9	D Terra Cor	əıo⊃ n∃ 🗆 ((2032	Pret]			
			5		2 T	0.001		lease			(0928) s	atenate	٨xO]			
	Ē		5		2hr						(0	928) s:					 _		_	1			
	d										BE 🗆 8260 [TM / X	3T8				 _			1		•	
>	F		yar		れ								нат				 			1			
USE ONI			Ray	VTACT:	edi					***	0-99 X 980	90 🗆	нат	4] 、		Ş	┞
O /LAB			- Ar	ECT CON	Len	ial id:					סאם ב	l (p)Hc				-	 _	~		Real of C	filiation)		
NOW		Na io	, Q	PROJ	Ŋ	B019					୦୪୨ ୮	l (6)Hc				ļ	_				aturé/A		
					4	2					pa	Filtere	Field				 			Sign		<u>y. (Sign</u>	
					101	ğ						рэллэ	Pres				 _		_	ceived b	ceived	ceived t	
					50	6	ARD				p	əriəsə.	iduŊ							Re	R.	Re	┨
		us.			ZIP:	na bi	I STANE					Ŋ, B	CONT.	2									
		m or call			4	heller	S L					Xia								1			
		insus.cc	ž		Ś	Leig	5 DA)					- CAM		Ner									
	94	s@eurol	R		STATE	0							Æ	S									
	1CC 895-54	26_sale	5			L K	72 HF					LING	F	S.L]]	Ţ	}	
	cier • ⁽⁷¹⁴⁾	ntact us	かな			LUL LUL						SAMP	'n	9/2						78	P.I		
	Cals	ation, co	sul	r. 5		E-MAIL: AAC	48 HR						TAD	tee Jo						12	F		
	A 9284	informa	é	NUC			X	<u>ا</u>						\neg						1,8	t i		
ns	Grove, (drop of		じ		20 C	4 HR	THEF				4	2	-						<u>ه</u> لا	æ	(e)	
) fi	Garden	/ sample	à	_	ą	- 4 Bush sur	ū		SNC:					Bv-						Signatu	Sightu	Signatu	
nr	n Way,	service	3/14	2 8	ر ر د ر	-681	DAY		TRUCTIK					N						ied by: (Nd bei	fed by	
n)	incoli	urier	SS-CC	10			NE N	БЦ Д	KL INS					<u> </u>				1 200.00000 00			Lish		1

~

Page 17 of 18 766

Return to Contents



seurofins		WORK ORDER	NUMBER:	16-06	ge 18	øf-1866
Calscience	SAMPLE RECEIPT	CHECKLIST	C	OOLER		of _/_
Leighton	Consulting		DA	ге: 06 /	24	/ 2016
TEMPERATURE: (Criteria: 0.0°C – Thermometer ID: SC2A (CF: 0.0°C) Sample(s) outside temperature Sample(s) outside temperature Sample(s) received at ambient te Ambient Temperature: Air	6.0°C, not frozen except sedim ; Temperature (w/o CF): <u>3</u> e criteria (PM/APM contacted b e criteria but received on ice/ch mperature; placed on ice for tra-	ent/tissue) <u> </u> °C (w/ CF): <u> </u> y: <u>)</u> illed on same day or ansport by courier	و -∑°C; ټ f sampling	∃ Blank ∠ Checke	⊠ Sam	1ple 83-6
CUSTODY SEAL:Cooler□ Present and IntactSample(s)□ Present and Intact	 □ Present but Not Intact □ Present but Not Intact 	Not Present	□ N/A □ N/A	Checke Checke	d by: _ d by: _	836 876
SAMPLE CONDITION: Chain-of-Custody (COC) document COC document(s) received comple	(s) received with samples te	ontainers		Yes	No □ □	N/A
□ No analysis requested □ No Sampler's name indicated on COC Sample container label(s) consister Sample container(s) intact and in ge Proper containers for analyses requ Sufficient volume/mass for analyses	t relinquished D No relinquish t with COC bod condition rested s requested	ed date □ No relir	nquished time			
Aqueous samples for certain and pH □ Residual Chlorine □ Proper preservation chemical(s) no Unpreserved aqueous sample(s	alyses received within 15-minut Dissolved Sulfide □ Dissolve ted on COC and/or sample cor) received for certain analyses	e holding time d Oxygen tainer		. □ . ¤		
□ Volatile Organics □ Total M Container(s) for certain analysis fre □ Volatile Organics □ Dissolv	e of headspace ed Gases (RSK-175)	lved Oxygen (SM 45 lydrogen Sulfide (H	500) ach)	. 🗆		
Tedlar™ bag(s) free of condensation	on	/Trin Pla	ak Lot Numh	🗆		کر ۱
CONTAINER TYPE: Aqueous: \Box VOA \Box VOAh \Box VO \Box 125PBznna \Box 250AGB \Box 2500 \Box 500PB \Box 1AGB \Box 1AGBna ₂ \Box Solid: \Box 4ozCGJ \Box 8ozCGJ \Box 1 Air: \Box Tedlar TM \Box Canister \Box Sol Container: A = Amber, B = Bottle, C = Preservative: b = buffered, f = filtered, $s = H_2SO_4$ $u = ultra-putch$	Ana ₂ \Box 100PJ \Box 100PJna ₂ CGB \Box 250CGBs \Box 250PB J \Box 1AGBs \Box 1PB \Box 1PBna \Box 6ozCGJ \Box Sleeve () \Box bent Tube \Box PUF \Box Clear, E = Envelope, G = Glass, J h = HCl, n = HNO ₃ , na = NaOH, n 2, znna = Zn (CH ₃ CO ₂) ₂ + NaOH	() Inp Blan □ 125AGB □ 125A □ 250PBn □ 500AC □ □ EnCores [®] () □ Other Matrix (= Jar, P = Plastic, and a ₂ = Na ₂ S ₂ O ₃ , p = H ₃ F	$GBh \square 125/$ $GBh \square 500AG$ $\Box = \Box = \Box$ $\Box = \Box$	AGBp □ ;J □ 500. □ ⁹ () □ ssealable E ed/Check Review	125PB AGJs I Gag ed by: ed by:	

Return to Contents



Calscience

Supplemental Report 1

The original report has been revised/corrected.

WORK ORDER NUMBER: 16-06-1767

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For Client: Leighton Consulting, Inc. Client Project Name: 603287049 Attention: Meredith Church 17781 Cowan Suite 140 Irvine, CA 92614-6009

Nicole Scott

Approved for release on 07/06/2016 by: Nicole Scott Project Manager

ResultLink ▶

Email your PM >



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

7440 Lincoln Way, Garden Grove, CA 92841-1432 * TEL: (714) 895-5494 * FAX: (714) 894-7501 * www.calscience.com

🛟 eurofins

Calscience

Contents

1	Work Order Narrative	3
2	Client Sample Data	4 4 6 8
3	Quality Control Sample Data	9 9 11
4	Sample Analysis Summary	14
5	Glossary of Terms and Qualifiers.	15
6	Chain-of-Custody/Sample Receipt Form	16

Work Order: 16-06-1767

Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/24/16. They were assigned to Work Order 16-06-1767.

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

Holding Times:

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

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

Quality Control:

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

Subcontractor Information:

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

Additional Comments:

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

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



C41-C44

Surrogate

C6-C44 Total

n-Octacosane

Leighton Consulting, Inc.			Date Recei	ved:		06/24/16			
17781 Cowan, Suite 140			Work Order	r:			16-06-1767		
Irvine, CA 92614-6009			Preparatior	1:		EPA 3510C			
,			' Method:	EPA 8015B (M)					
			l Inite:						
During 000007040			Units.			D	ug/L		
Project: 603287049						Pa	ige 1 of 2		
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID		
PT-PRE-1	16-06-1767-1-A	06/23/16 10:25	Aqueous	GC 48	06/27/16	06/27/16 19:07	160627B12		
Parameter	·	Result	RL	:	DF	Qua	alifiers		
C6		ND	91		1.00				
C7		ND	91		1.00				
C8		ND	91		1.00				
C9-C10		ND	91		1.00				
C11-C12		ND	91		1.00				
C13-C14		ND	91		1.00				
C15-C16		ND	91		1.00				
C17-C18		ND	91		1.00				
C19-C20		ND	91		1.00				
C21-C22		ND	91		1.00				
C23-C24		ND	91		1.00				
C25-C28		ND	91		1.00				
C29-C32		ND	91		1.00				
C33-C36		ND	91		1.00				
C37-C40		ND	91		1.00				

91

100

68-140

Control Limits

1.00

1.00

Qualifiers

ND

ND

96

<u>Rec. (%)</u>



Leighton Consulting, Inc.			Date Recei	ved:		06/24/16				
17781 Cowan, Suite 140			Work Orde	r:			16-06-1767			
Irvine, CA 92614-6009			Preparatior	ו:			EPA 3510C			
			Method:		EPA 8015B (M)					
			l Inite:			_				
Project: 603287049			Offito.			Pa	ug/L			
						10				
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID			
Method Blank	099-15-498-376	N/A	Aqueous	GC 48	06/27/16	06/27/16 18:06	160627B12			
Parameter		Result	RL	-	DF	Qua	alifiers			
C6		ND	10	0	1.00					
C7		ND	10	0	1.00					
C8		ND	10	0	1.00					
C9-C10		ND	10	0	1.00					
C11-C12		ND	10	0	1.00					
C13-C14		ND	10	0	1.00					
C15-C16		ND	10	0	1.00					
C17-C18		ND	10	0	1.00					
C19-C20		ND	10	0	1.00					
C21-C22		ND	10	0	1.00					
C23-C24		ND	10	0	1.00					
C25-C28		ND	10	0	1.00					
C29-C32		ND	10	0	1.00					
C33-C36		ND	10	0	1.00					
C37-C40		ND	10	0	1.00					
C41-C44		ND	10	0	1.00					
C6-C44 Total		ND	10	0	1.00					
Surrogate		<u>Rec. (%)</u>	<u>Co</u>	ontrol Limits	<u>Qualifiers</u>					
n-Octacosane		97	68	-140						



Leighton Consulting, Inc.			Date Received: 06/						
17781 Cowan, Suite 140			Work Orde	r:			16-06-1767		
Irvine, CA 92614-6009			Preparatior	า:		EP	A 3010A Total		
			Method [.]				EPA 6010B		
			l Inite:				ma/l		
Project 602287040			Units.			De	ing/∟		
Project. 603287049						Pa			
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID		
PT-PRE-1	16-06-1767-1-B	06/23/16 10:25	Aqueous	ICP 7300	06/24/16	06/30/16 14:04	160624LA5		
Parameter		Result	RL	=	DF	Qua	lifiers		
Antimony		ND	0.0	0150	1.00				
Arsenic		ND	0.0	0100	1.00				
Barium		0.0850	0.0	0100	1.00				
Beryllium		ND	0.0	0100	1.00				
Cadmium		ND	0.0	0100	1.00				
Chromium		ND	0.0	0100	1.00				
Cobalt		ND	0.0	0100	1.00				
Copper		0.0233	0.0	0100	1.00				
Lead		ND	0.0	0100	1.00				
Molybdenum		0.0161	0.0	0100	1.00				
Nickel		ND	0.0	0100	1.00				
Phosphorus		0.743	0.1	100	1.00				
Selenium		ND	0.0	0150	1.00				
Silver		ND	0.0	00500	1.00				
Thallium		ND	0.0	0150	1.00				
Vanadium		ND	0.0	0100	1.00				
Aluminum		ND	0.0	0500	1.00				
Calcium		95.9	0.2	100	1.00				
Iron		ND	0.1	100	1.00				
Magnesium		18.3	0.2	100	1.00				
Manganese		ND	0.0	00500	1.00				
Potassium		27.5	0.8	500	1.00				
Strontium		0.787	0.0	0200	1.00				
Tin		ND	0.0	0500	1.00				
Titanium		ND	0.0	0300	1.00				
Boron		0.662	0.0	0200	1.00				
Zinc		0.0707	0.0	0100	1.00				



Leighton Consulting, Inc.		Date Recei		06/24/16			
17781 Cowan, Suite 140			Work Orde		16-06-1767		
Irvine, CA 92614-6009			Preparatior	ו:		EP.	A 3010A Total
-,			Method:				EPA 6010B
			l Inits:				mq/l
Project: 603287049			Offit3.			Pa	ge 2 of 2
							0
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-003-15899	N/A	Aqueous	ICP 7300	06/24/16	06/30/16 11:44	160624LA5
Parameter		Result	<u></u>		DF	Qua	lifiers
Antimony		ND	0.0	0150	1.00		
Arsenic		ND	0.0	0100	1.00		
Barium		ND	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		ND	0.0	0100	1.00		
Cobalt		ND	0.0	0100	1.00		
Copper		ND	0.0	0100	1.00		
Lead		ND	0.0	0100	1.00		
Molybdenum		ND	0.0	0100	1.00		
Nickel		ND	0.0	0100	1.00		
Phosphorus		ND	0.1	100	1.00		
Selenium		ND	0.0	0150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	0150	1.00		
Vanadium		ND	0.0	0100	1.00		
Aluminum		ND	0.0	0500	1.00		
Calcium		ND	0.1	100	1.00		
Iron		ND	0.1	100	1.00		
Magnesium		ND	0.1	100	1.00		
Manganese		ND	0.0	00500	1.00		
Potassium		ND	0.5	500	1.00		
Strontium		ND	0.0	0200	1.00		
Tin		ND	0.0)500	1.00		
Titanium		ND	0.0	0300	1.00		
Boron		ND	0.0)200	1.00		
Zinc		ND	0.0	0100	1.00		



Calscience

Analy	ytical	Re	port
	,		

Leighton Consulting, Inc.	_eighton Consulting, Inc.					06/24/16			
17781 Cowan, Suite 140			Work Order	r:			16-06-1767		
Irvine, CA 92614-6009			Preparation	n:		EP.	A 7470A Total		
			Method:			EPA 7470A			
	mg/L								
Project: 603287049						Pa	ige 1 of 1		
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID		
PT-PRE-1	16-06-1767-1-B	06/23/16 10:25	Aqueous	Mercury 04	06/27/16	06/27/16 19:16	160627LA2		
Parameter		Result	RL	:	DF	Qua	alifiers		
Mercury		ND	0.0	000500	1.00				
Method Blank	099-04-008-7905	N/A	Aqueous	Mercury 04	06/27/16	06/27/16 19:05	160627LA2		
Parameter		Result	RL		DF	Qua	alifiers		
Mercury		ND	0.0	00500	1.00				

Leighton Consulting, Inc.	Date Received:	06/24/16
17781 Cowan, Suite 140	Work Order:	16-06-1767
Irvine, CA 92614-6009	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
Project: 603287049		Page 1 of 2

Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepared	Date Anal	yzed	MS/MSD Bat	ch Number
16-06-1774-1	Sample		Aqueous		ICP 7300	06/24/16	06/28/16 ⁻	13:05	160624SA5	
16-06-1774-1	Matrix Spike		Aqueous		ICP 8300	06/24/16	06/28/16 ⁻	13:06	160624SA5	
16-06-1774-1	Matrix Spike Duplicate		Aqueous		ICP 7300	06/24/16	06/30/16 14:06		160624SA5	
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	MS Conc.	<u>MS</u> %Red	<u>MSD</u> c. Conc.	<u>MSD</u> <u>%Rec.</u>	%Rec. CL	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Antimony	0.01940	0.5000	0.5076	98	0.5130	99	72-132	1	0-10	
Arsenic	ND	0.5000	0.5413	108	0.5273	105	80-140	3	0-11	
Barium	0.1537	0.5000	0.7150	112	0.6416	98	87-123	11	0-6	4
Beryllium	ND	0.5000	0.5724	114	0.5052	101	89-119	12	0-8	4
Cadmium	ND	0.5000	0.5664	113	0.5018	100	82-124	12	0-7	4
Chromium	ND	0.5000	0.5641	113	0.5030	101	86-122	11	0-8	4
Cobalt	ND	0.5000	0.5858	117	0.5000	100	83-125	16	0-7	4
Copper	ND	0.5000	0.5656	113	0.4929	99	78-126	14	0-7	4
Lead	ND	0.5000	0.5269	105	0.4963	99	84-120	6	0-7	
Molybdenum	ND	0.5000	0.5367	107	0.4983	100	78-126	7	0-7	
Nickel	0.01595	0.5000	0.5558	108	0.5194	101	84-120	7	0-7	
Phosphorus	ND	0.5000	0.5792	116	0.5457	109	80-140	6	0-6	
Selenium	0.03054	0.5000	0.5531	105	0.5125	96	79-127	8	0-9	
Silver	ND	0.2500	0.2800	112	0.2471	99	86-128	12	0-7	4
Thallium	ND	0.5000	0.5282	106	0.4976	100	79-121	6	0-8	
Vanadium	0.01362	0.5000	0.5594	109	0.5044	98	88-118	10	0-7	4
Aluminum	0.06226	0.5000	0.6400	116	0.5576	99	73-145	14	0-16	
Calcium	27.36	0.5000	27.42	4X	25.94	4X	77-113	4X	0-11	Q
Iron	0.5388	0.5000	0.8238	57	0.7022	33	65-149	16	0-21	3
Magnesium	13.69	0.5000	14.41	4X	12.57	4X	56-140	4X	0-11	Q
Manganese	0.007114	0.5000	0.5635	111	0.5052	100	86-116	11	0-7	4
Potassium	3.091	5.000	8.250	103	7.798	94	83-131	6	0-7	
Strontium	0.4314	0.5000	0.9468	103	0.8708	88	81-123	8	0-6	4
Tin	ND	0.5000	0.5539	111	0.5443	109	49-151	2	0-5	
Titanium	ND	0.5000	0.5686	114	0.5050	101	92-128	12	0-5	4
Boron	0.3751	0.5000	0.8472	94	0.7625	77	81-135	11	0-7	3,4
Zinc	ND	0.5000	0.5800	116	0.5274	105	89-131	10	0-8	4



Leighton Consulting, Inc.				Da	te Received:					06/24/16
17781 Cowan, Suite 140				Wc	ork Order:				16	6-06-1767
Irvine, CA 92614-6009				Pre	eparation:				EPA 74	70A Total
				Me	thod:				E	PA 7470A
Project: 603287049									Page 2	? of 2
Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepared	Date Ana	lyzed	MS/MSD Bat	tch Number
16-06-1766-1	Sample		Aqueous	;	Mercury 04	06/27/16	06/27/16	19:09	160627SA2	
16-06-1766-1	Matrix Spike		Aqueous	;	Mercury 04	06/27/16	06/27/16	19:12	160627SA2	
16-06-1766-1	Matrix Spike	Duplicate	Aqueous	;	Mercury 04	06/27/16	06/27/16	19:21	160627SA2	
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	<u>MS</u> Conc.	<u>MS</u> %Re	<u>MSD</u> c. <u>Conc.</u>	<u>MSD</u> %Rec.	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	ND	0.01000	0.009618	96	0.00961	296	55-133	0	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Leighton Consulting, Inc.				Date Receiv	ved:					06/24/16
17781 Cowan, Suite 140				Work Order	:					16-06-1767
Irvine, CA 92614-6009				Preparation	:				E	EPA 3510C
				Method:					EPA	8015B (M)
Project: 603287049									Page	1 of 3
Quality Control Sample ID	Туре	Ma	atrix	Instrument	Date Pre	pared	Date	Analyzed	LCS/LCSD B	atch Number
099-15-498-376	LCS	Aq	lueous	GC 48	06/27/16		06/27	/16 18:21	160627B12	
099-15-498-376	LCSD	Aq	lueous	GC 48	06/27/16		06/27	/16 18:36	160627B12	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	<u>%Rec</u>	. CL	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
TPH as Diesel	4000	4296	107	4230	106	75-11	75-117 2		0-13	

RPD: Relative Percent Difference. CL: Control Limits

Qualifiers

Date Analyzed LCS Batch Number

ME CL

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

06/28/16 19:29 160624LA5



Quality Control Sample ID

097-01-003-15899

Parameter

Antimony

Arsenic

Barium

Beryllium

Cadmium

Chromium

Cobalt

Copper

Molybdenum

Phosphorus

Selenium

Thallium

Vanadium

Aluminum

Magnesium

Manganese

Potassium

Strontium

Titanium

Boron

Zinc

Tin

Calcium

Iron

Lead

Nickel

Silver

Туре

LCS

Leighton Consulting, Inc.	Date Received:	06/24/16
17781 Cowan, Suite 140	Work Order:	16-06-1767
Irvine, CA 92614-6009	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
Project: 603287049		Page 2 of 3

Instrument

ICP 8300

Conc. Recovered

0.4892

0.5024

0.5266

0.4971

0.5330

0.5234

0.5809

0.5605

0.5243

0.4991

0.5516

0.5308

0.4887

0.2698

0.5085

0.4910

0.5705

0.5244

0.5783

0.5995

0.5348

5.253

0.5259

0.5188

0.5145

0.5061

0.5673

Date Prepared

%Rec. CL

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

06/24/16

LCS %Rec.

98

100

105

99

107

105

116

112

105

100

110

106

98

108

102

98

114

105

116

120

107

105

105

104

103

101

113

Matrix

Spike Added

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.2500

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

5.000

0.5000

0.5000

0.5000

0.5000

0.5000

Aqueous

Total number of LCS compounds: 27 Total number of ME compounds: 0 Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

ents
onte
9
nrn
Ret

RPD: Relative Percent Difference. CL: Control Limits



		Aguagua	Marauma		06/07/46 40:07	
Quality Control Sample ID	Туре	Matrix	Instrument	Date Prenared	Date Analyzed	LCS Batch Number
Project: 603287049						Page 3 of 3
			Method:			EPA 7470A
Irvine, CA 92614-6009			Preparation:			EPA 7470A Total
17781 Cowan, Suite 140			Work Order:			16-06-1767
Leighton Consulting, Inc.			Date Receiv	ed:		06/24/16

	Type	IVIALITA	Instrument	Dale Flepaleu	Date Analyzeu	LCS Batch Numbe	/I
099-04-008-7905	LCS	Aqueous	Mercury 04	06/27/16	06/27/16 19:07	160627LA2	
Parameter		Spike Added	Conc. Recove	red LCS %Re	<u>%Rec.</u>	<u>CL</u> Qualifi	iers
Mercury		0.01000	0.009365	94	80-120)	

RPD: Relative Percent Difference. CL: Control Limits

Page 1 of 1



Calscience

Work Order: 16-06-1767

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 7470A	EPA 7470A Total	776	Mercury 04	1
EPA 8015B (M)	EPA 3510C	972	GC 48	1

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

Page 1 of 1



Calscience

Work Order: 16-06-1767

Glossary of Terms and Qualifiers

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

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

																				 	P	age 1	6 of 1	8	
RD .						2																			levision
CC ECC	Z .	Υ				lon s																	£5 ⁻	3	-07-01 F
R Z	2	Ъ,				3	117															543	134	3	O 014
۲ آ	N .			TE NO.:		5																Time / /	Time	Time	60
Ϋ́ς`	5			OR QUO		PRINT)	NG NG				9.815.6	□ 6612 □ 96	10(Cr(VI									9	9	- 0
Ģ	DATE:	PAGE:	ö	ONTACT		ER(S): (2	7		XTAT	/0209 🗆 /	K747101034	Aetals,	1221	\boxtimes							16	3/1	2/1	4/1
HAIN		-	P.O. N	LABC		SAMPI	2	SES			WI	S 0728 🗖 07	28 🗆 🤅	ын∧ч								123	.(م	12	2
C)								ALY: ank as				(7	808) ह	ьсва								C ^{Date}	C Date	C de	3
										·····		(1808)	sebio	itsəq						_					
								box of				(02	28) sC	OAS							ļ				
						CODE:				ore	⊃ ɛnəT ⊑] En Core [(2032	Preb											
					Z	1000		Please				(0928) 9	enate:	Oxy9						 		Σ			2
					ler,				ļ			(0	928) s	NOC						 					2
		6	Ş	42	Ch						[⊐ 0978 □ ∃8	TM / >	Kata						_			5		
	5		AE / NO.:		N									нат	$\lfloor \\ \end{pmatrix}$							2 de	Ľ-4		
	USE CN	ġ		× v NTACT:	edí						44	c36 C36 C6-C	-90 D	нат	Σ					 _	<u> </u>	L'a	-)		1
	AC. / LAB			JECT CO	les	BAL ID:			ļ			090 0] (b)H	9T D				_				C Q		ffiliation)	
	Ş		CLIE	J ong Contraction of the second seco		0 CI CI						୦୪୨ ୮] (6)H	9T D						 _		ature/A	N/K	ature/A	
												p	Filtere	Field				_		 			oy: (Sign	er (Sigl	\
					14	5							рәли	Prese		Ļ				 _		Peived I	ceived t		í.
					201	Col	UARD UARD		ļ			p	eviese I	nqnU	X	<u> </u>				 _		<u>\$</u> } }	æ –	Re	
					Silli S	- Ju	, Stanr						Ŋ.	CONT.	3							7			
		or call us				290	<u>ت</u>	í												 		2			
		s.com c			7	à	SVAC							MAIKIX	5							2			
		urofinsu				19/13	ן קרבי							Γ	3				-	 _		23/			
	a)	5-5494 sales@e			STA	3 S	HRD"): HRD"):							TIME	3							Jel 1) à	İ
	enc(714) 895 t us26_3	ġ	b		J.J.	t "STAND	1					MPLING		L L				<u> </u>	 _		Dela		Ĵ	
	lscie	27 • (7 contact	E			- nn	y TAT no	<u> </u>					ŝ	DATE	11/6	1						a)		Â	
	Ca	2841-14 rmation	84		IAN	E-MAI MC	pply to an						L		19	ļ				 	_	3		T	
S	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	e, CA 9: offinfo	Ju		Z	80	es may at	K ≤ E							_							Æ			
Ë		len Grov		15	3	67-	surcharg	HIOL						LEID								ture)	ature)		
fof		ay, Gard ce / sam	E P	10	13	.12	AE (Rush ۷	- Ŀ	TIONS:					SAMF	Pr.							r: (Signe	Signa	C Night	E
E		icoln Wé	ORYCLI	14		2-			INSTRUC						ビム							lished by	ished b	lished by	<u>B</u>
		7440 Lin For couri	ABORAT 6	ADDRESS	+	140 140	TURNAR(SPECIAL				LAB	USE ONLY	1	L						Relinqu	Let	New York	ſ
	-		-	1~	_۲			- I	1.				- Carlos Carlos		a cintanti	e printing i	EXCENSION AS	STREE STREET	10 1 004845	100 000	NAMES OF BRIDE	ä 1	1	2	4

N.
Page 17 of 18 167

Return to Contents



Section 5

work order NUMBER: '	16-0 ⁶	ge 18/9	78°7
Calscience SAMPLE RECEIPT CHECKLIST CO	DOLER _	<u>/_</u> o	F
CLIENT: Leighton Consulting DAT	E: 06 /	<u>24</u> 1	2016
TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue) Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): 3 · 5 °C (w/ CF): 3 · 5 °C; [] Sample(s) outside temperature criteria (PM/APM contacted by:) Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling Sample(s) received at ambient temperature; placed on ice for transport by courier Ambient Temperature: [] Air] Blank J	Samp)le 36
CUSTODY SEAL:Cooler□Present and Intact□Present but Not Intact□Not Present□N/ASample(s)□Present and Intact□Present but Not Intact□Not Present□N/A	Checked Checked	d by: <u>8</u> d by: <u>8</u>	<u>36</u> <u>26</u>
SAMPLE CONDITION: Chain-of-Custody (COC) document(s) received with samples COC document(s) received complete □ Sampling date □ Sampling time □ Matrix □ Number of containers	Yes P	No □ □	N/A □ □
 □ No analysis requested □ Not relinquished □ No relinquished date □ No relinquished time Sampler's name indicated on COC Sample container label(s) consistent with COC Sample container(s) intact and in good condition Proper containers for analyses requested Sufficient volume/mass for analyses requested Samples received within holding time 			
Aqueous samples for certain analyses received within 15-minute holding time □ pH □ Residual Chlorine □ Dissolved Sulfide □ Dissolved Oxygen Proper preservation chemical(s) noted on COC and/or sample container Unpreserved aqueous sample(s) received for certain analyses			
□ Volatile Organics □ Total Metals □ Dissolved Metals Container(s) for certain analysis free of headspace □ Volatile Organics □ Dissolved Gases (RSK-175) □ Dissolved Oxygen (SM 4500) □ Carbon Dioxide (SM 4500) □ Ferrous Iron (SM 3500) □ Hydrogen Sulfide (Hach)	. 🗆		Ø
Tedlar™ bag(s) free of condensation (Trip Blank Lot Numb CONTAINER TYPE: (Trip Blank Lot Numb Aqueous: □ VOA □ VOAh □ VOAna₂ □ 100PJ □ 100PJna₂ □ 125AGB □ 125AGBh □ 125A □ 125PBznna □ 250AGB □ 250CGB □ 250CGBs □ 250PB □ 250PBn □ 500AGB □ 500AGB	. □ er: \GBp □ ⁻ J □ 5004	□ 125PB \GJ s))
□ 500PB □ 1AGB □ 1AGBna ₂ □ 1AGBs □ 1PB □ 1PBna □	□ '() □ sealable B ed/Checke	 □ ag ed by:	

a an an tha an an an an tha an an tha

Return to Contents



Calscience

Supplemental Report 1

The original report has been revised/corrected.

WORK ORDER NUMBER: 16-06-1768

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For Client: Leighton Consulting, Inc. Client Project Name: 603287049 Attention: Meredith Church 17781 Cowan Suite 140 Irvine, CA 92614-6009

Nicole Scott

Approved for release on 07/06/2016 by: Nicole Scott Project Manager

ResultLink ▶

Email your PM >



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

7440 Lincoln Way, Garden Grove, CA 92841-1432 * TEL: (714) 895-5494 * FAX: (714) 894-7501 * www.calscience.com

eurofins

Calscience

Contents

Client P Work O	Project Name: 603287049 rder Number: 16-06-1768	
1	Work Order Narrative	3
2	Client Sample Data	4 4

	2.2 EPA 6010B ICP Metals (Aqueous).2.3 EPA 7470A Mercury (Aqueous).	6 8
3	Quality Control Sample Data. 3.1 MS/MSD. 3.2 LCS/LCSD.	9 9 11
4	Sample Analysis Summary	14
5	Glossary of Terms and Qualifiers	15
6	Chain-of-Custody/Sample Receipt Form	16

Work Order: 16-06-1768

Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/24/16. They were assigned to Work Order 16-06-1768.

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

Holding Times:

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

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

Quality Control:

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

Subcontractor Information:

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

Additional Comments:

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

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



C21-C22

C23-C24

C25-C28

C29-C32

C33-C36

C37-C40

C41-C44

Surrogate

C6-C44 Total

n-Octacosane

Leighton Consulting, Inc.			Date Recei	ived:			06/24/16	
17781 Cowan, Suite 140			Work Orde	r:	16-06-1768			
Irvine, CA 92614-6009			Preparation	า:	EPA 3510C			
			Method:		EPA 8015B (M)			
			Units:	ua/L				
Project: 603287049						Pa	ige 1 of 2	
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID	
PT-BV-2	16-06-1768-1-A	06/23/16 12:01	Aqueous	GC 48	06/27/16	06/27/16 19:23	160627B12	
Parameter		Result	RL	=	DF	Qualifiers		
C6		ND	91		1.00			
C7		ND	91		1.00			
C8		ND	91		1.00			
C9-C10		ND	91		1.00			
C11-C12		ND	91		1.00			
C13-C14		ND	91		1.00			
C15-C16		ND	91		1.00			
C17-C18		ND	91		1.00			
C19-C20		ND	91		1.00			

91

91

91

91

91

91

91

100

68-140

Control Limits

1.00

1.00

1.00

1.00

1.00

1.00

1.00

1.00

Qualifiers

ND

ND

ND

ND

ND

ND

ND

ND

99

<u>Rec. (%)</u>



C41-C44

Surrogate

C6-C44 Total

n-Octacosane

Analytical Report

100

100

68-140

Control Limits

1.00

1.00

Qualifiers

Leighton Consulting, Inc.			Date Recei	ved:		06/24/16			
17781 Cowan, Suite 140			Work Orde	r:			16-06-1768		
Irvine, CA 92614-6009			Preparatior		EPA 3510C				
			Method:			E	PA 8015B (M)		
			Units:				ug/L		
Project: 603287049						Pa	ge 2 of 2		
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID		
Method Blank	099-15-498-376	N/A	Aqueous	GC 48	06/27/16	06/27/16 18:06	160627B12		
Parameter		Result	RL	•	DF	Qua	lifiers		
C6		ND	10	0	1.00				
C7		ND	10	0	1.00				
C8		ND	10	0	1.00				
C9-C10		ND	10	0	1.00				
C11-C12		ND	10	0	1.00				
C13-C14		ND	10	0	1.00				
C15-C16		ND	10	0	1.00				
C17-C18		ND	10	0	1.00				
C19-C20		ND	10	0	1.00				
C21-C22		ND	10	0	1.00				
C23-C24		ND	10	0	1.00				
C25-C28		ND	10	0	1.00				
C29-C32		ND	10	0	1.00				
C33-C36		ND	10	0	1.00				
C37-C40		ND	10	0	1.00				

ND

ND

97

<u>Rec. (%)</u>



Leighton Consulting, Inc.		Date Recei	06/24/16						
17781 Cowan, Suite 140			Work Orde	r:		16-06-1768			
Irvine, CA 92614-6009			Preparation	า:		EP	A 3010A Total		
			Method:				EPA 6010B		
			Units:				ma/L		
Project: 603287049						Pa	ige 1 of 2		
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID		
PT-BV-2	16-06-1768-1-B	06/23/16 12:01	Aqueous	ICP 7300	06/24/16	06/30/16 14:05	160624LA5		
Parameter		Result	RL	=	DF	Qua	alifiers		
Antimony		ND	0.0	0150	1.00				
Arsenic		0.0947	0.0	0100	1.00				
Barium		0.422	0.0	0100	1.00				
Beryllium		ND	0.0	0100	1.00				
Cadmium		ND	0.0	0100	1.00				
Chromium		0.0134	0.0	0100	1.00				
Cobalt		ND	0.0	0100	1.00				
Copper		ND	0.0	0100	1.00				
Lead		ND	0.0	0100	1.00				
Molybdenum		0.0762	0.0	0100	1.00				
Nickel		ND	0.0	0100	1.00				
Phosphorus		ND	0.1	100	1.00				
Selenium		ND	0.0	0150	1.00				
Silver		0.00958	0.0	00500	1.00				
Thallium		ND	0.0	0150	1.00				
Vanadium		0.0254	0.0	0100	1.00				
Aluminum		ND	0.0	0500	1.00				
Iron		ND	0.1	100	1.00				
Magnesium		84.0	0.1	100	1.00				
Manganese		ND	0.0	00500	1.00				
Potassium		69.5	0.5	500	1.00				
Strontium		4.61	0.0	0200	1.00				
Tin		ND	0.0	0500	1.00				
Titanium		ND	0.0	0300	1.00				
Boron		2.93	0.0	0200	1.00				
Zinc		0.0284	0.0	0100	1.00				



Leighton Consulting, Inc.		Date Received: 00						
17781 Cowan, Suite 140			Work Orde		16-06-1768			
Irvine, CA 92614-6009			Preparation	n:	EP	A 3010A Total		
			Method:				EPA 6010B	
			Units:				ma/L	
Project: 603287049			Page 2 of 2					
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID	
Method Blank	097-01-003-15899	N/A	Aqueous	ICP 7300	06/24/16	06/30/16 11:44	160624LA5	
Parameter		Result	RI	=	DE	Qua	lifiers	
Antimony		ND	0.0	0150	1.00			
Arsenic		ND	0.0	0100	1.00			
Barium		ND	0.0	0100	1.00			
Beryllium		ND	0.0	0100	1.00			
Cadmium		ND	0.0	0100	1.00			
Chromium		ND	0.0	0100	1.00			
Cobalt		ND	0.0	0100	1.00			
Copper		ND	0.0	0100	1.00			
Lead		ND	0.0	0100	1.00			
Molybdenum		ND	0.0	0100	1.00			
Nickel		ND	0.0	0100	1.00			
Phosphorus		ND	0.	100	1.00			
Selenium		ND	0.0	0150	1.00			
Silver		ND	0.0	00500	1.00			
Thallium		ND	0.0	0150	1.00			
Vanadium		ND	0.0	0100	1.00			
Aluminum		ND	0.0	0500	1.00			
Iron		ND	0.	100	1.00			
Magnesium		ND	0.1	100	1.00			
Manganese		ND	0.0	00500	1.00			
Potassium		ND	0.9	500	1.00			
Strontium		ND	0.0	0200	1.00			
Tin		ND	0.0	0500	1.00			
Titanium		ND	0.0	0300	1.00			
Boron		ND	0.0	0200	1.00			
Zinc		ND	0.0	0100	1.00			



Leighton Consulting, Inc.			Date Recei	ved:			06/24/16	
17781 Cowan, Suite 140			Work Order	r:		16-06-1768		
Irvine, CA 92614-6009			Preparation	n:		EPA 7470A Total		
			Method:			EPA 7470A		
			Units:			mg/L		
Project: 603287049						Pa	ge 1 of 1	
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID	
PT-BV-2	16-06-1768-1-B	06/23/16 12:01	Aqueous	Mercury 04	06/27/16	06/27/16 19:18	160627LA2	
Parameter		Result	RL	:	DE	Qua	lifiers	
Mercury		ND	0.0	000500	1.00			
Method Blank	099-04-008-7905	N/A	Aqueous	Mercury 04	06/27/16	06/27/16 19:05	160627LA2	
Parameter		Result	RL		DF	Qua	lifiers	
Mercury		ND	0.0	00500	1.00			

Leighton Consulting, Inc.	Date Received:	06/24/16
17781 Cowan, Suite 140	Work Order:	16-06-1768
Irvine, CA 92614-6009	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
Project: 603287049		Page 1 of 2

Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepared	Date Ana	yzed	MS/MSD Bat	ch Number
16-06-1774-1	Sample		Aqueous		ICP 7300	06/24/16	06/28/16	13:05	160624SA5	
16-06-1774-1	Matrix Spike		Aqueous		ICP 8300	06/24/16	06/28/16	13:06	160624SA5	
16-06-1774-1	Matrix Spike Duplicate		Aqueous	Aqueous		06/24/16	06/30/16	14:06	160624SA5	
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	MS Conc.	<u>MS</u> %Re	<u>MSD</u> c. <u>Conc.</u>	<u>MSD</u> <u>%Rec.</u>	%Rec. CL	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Antimony	0.01940	0.5000	0.5076	98	0.5130	99	72-132	1	0-10	
Arsenic	ND	0.5000	0.5413	108	0.5273	105	80-140	3	0-11	
Barium	0.1537	0.5000	0.7150	112	0.6416	98	87-123	11	0-6	4
Beryllium	ND	0.5000	0.5724	114	0.5052	101	89-119	12	0-8	4
Cadmium	ND	0.5000	0.5664	113	0.5018	100	82-124	12	0-7	4
Chromium	ND	0.5000	0.5641	113	0.5030	101	86-122	11	0-8	4
Cobalt	ND	0.5000	0.5858	117	0.5000	100	83-125	16	0-7	4
Copper	ND	0.5000	0.5656	113	0.4929	99	78-126	14	0-7	4
Lead	ND	0.5000	0.5269	105	0.4963	99	84-120	6	0-7	
Molybdenum	ND	0.5000	0.5367	107	0.4983	100	78-126	7	0-7	
Nickel	0.01595	0.5000	0.5558	108	0.5194	101	84-120	7	0-7	
Phosphorus	ND	0.5000	0.5792	116	0.5457	109	80-140	6	0-6	
Selenium	0.03054	0.5000	0.5531	105	0.5125	96	79-127	8	0-9	
Silver	ND	0.2500	0.2800	112	0.2471	99	86-128	12	0-7	4
Thallium	ND	0.5000	0.5282	106	0.4976	100	79-121	6	0-8	
Vanadium	0.01362	0.5000	0.5594	109	0.5044	98	88-118	10	0-7	4
Aluminum	0.06226	0.5000	0.6400	116	0.5576	99	73-145	14	0-16	
Iron	0.5388	0.5000	0.8238	57	0.7022	33	65-149	16	0-21	3
Magnesium	13.69	0.5000	14.41	4X	12.57	4X	56-140	4X	0-11	Q
Manganese	0.007114	0.5000	0.5635	111	0.5052	100	86-116	11	0-7	4
Potassium	3.091	5.000	8.250	103	7.798	94	83-131	6	0-7	
Strontium	0.4314	0.5000	0.9468	103	0.8708	88	81-123	8	0-6	4
Tin	ND	0.5000	0.5539	111	0.5443	109	49-151	2	0-5	
Titanium	ND	0.5000	0.5686	114	0.5050	101	92-128	12	0-5	4
Boron	0.3751	0.5000	0.8472	94	0.7625	77	81-135	11	0-7	3,4
Zinc	ND	0.5000	0.5800	116	0.5274	105	89-131	10	0-8	4



Leighton Consulting, Inc.				Da	te Received:					06/24/16	
17781 Cowan, Suite 140				Wc	ork Order:				10	6-06-1768	
Irvine, CA 92614-6009				Preparation:					EPA 7470A Total		
				Me	thod:				E	PA 7470A	
Project: 603287049									Page 2	2 of 2	
Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number	
16-06-1766-1	Sample		Aqueous	;	Mercury 04	06/27/16	06/27/16	19:09	160627SA2		
16-06-1766-1	Matrix Spike		Aqueous	;	Mercury 04	06/27/16	06/27/16	19:12	160627SA2		
16-06-1766-1	Matrix Spike	Duplicate	Aqueous	5	Mercury 04	06/27/16	06/27/16	19:21	160627SA2		
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	<u>MS</u> Conc.	<u>MS</u> <u>%Re</u>	<u>MSD</u> c. <u>Conc.</u>	MSD %Rec.	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>	
Mercury	ND	0.01000	0.009618	96	0.00961	2 96	55-133	0	0-20		





Leighton Consulting, Inc.				Date Receiv	ved:					06/24/16
17781 Cowan, Suite 140				Work Order	:					16-06-1768
Irvine, CA 92614-6009	Preparation:					EPA 3510C				
				Method:					EPA	8015B (M)
Project: 603287049									Page	1 of 3
Quality Control Sample ID	Туре	Ма	trix	Instrument	Date Prep	bared	Date A	nalyzed	LCS/LCSD B	atch Number
099-15-498-376	LCS	Aq	ueous	GC 48	06/27/16		06/27/	16 18:21	160627B12	
099-15-498-376	LCSD	Aq	ueous	GC 48	06/27/16		06/27/	16 18:36	160627B12	
Parameter	Spike Added	LCS Conc.	<u>LCS</u> <u>%Rec.</u>	LCSD Conc.	LCSD %Rec.	<u>%Rec.</u>	<u>. CL</u>	<u>RPD</u>	RPD CL	<u>Qualifiers</u>
								-		

Qualifiers

Date Analyzed LCS Batch Number

ME CL

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

73-127

06/28/16 19:29 160624LA5



Quality Control Sample ID

097-01-003-15899

Parameter

Antimony

Arsenic

Barium

Beryllium

Cadmium

Chromium

Cobalt

Copper

Molybdenum

Phosphorus

Selenium

Thallium

Vanadium

Aluminum

Magnesium

Manganese

Potassium

Strontium

Titanium

Boron

Zinc

Tin

Lead

Nickel

Silver

Iron

Туре

LCS

Leighton Consulting, Inc.	Date Received:	06/24/16
17781 Cowan, Suite 140	Work Order:	16-06-1768
Irvine, CA 92614-6009	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
Project: 603287049		Page 2 of 3

Instrument

ICP 8300

Conc. Recovered

0.4892

0.5024

0.5266

0.4971

0.5330

0.5234

0.5809

0.5605

0.5243

0.4991

0.5516

0.5308

0.4887

0.2698

0.5085

0.4910

0.5705

0.5783

0.5995

0.5348

5.253

0.5259

0.5188

0.5145

0.5061

0.5673

Matrix

Spike Added

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

0.2500

0.5000

0.5000

0.5000

0.5000

0.5000

0.5000

5.000

0.5000

0.5000

0.5000

0.5000

0.5000

Aqueous

Date Prepared

%Rec. CL

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

06/24/16

LCS %Rec.

98

100

105

99

107

105

116

112

105

100

110

106

98

108

102

98

114

116

120

107

105

105

104

103

101

113

Total number of LCS compounds: 26 Total number of ME compounds: 0 Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Qualifiers



Leighton Consulting, Inc.			Date Receive	vived: 06/24/16				
17781 Cowan, Suite 140			Work Order:		16-06-1768			
Irvine, CA 92614-6009			Preparation:		EPA 7470A Tota			
			Method:		EPA 7470A			
Project: 603287049						Page 3 of 3		
Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number		
099-04-008-7905	LCS	Aqueous	Mercury 04	06/27/16	06/27/16 19:07	160627LA2		

Conc. Recovered

0.009365

LCS %Rec.

94

<u>%Rec. CL</u>

80-120

Spike Added

0.01000

Me	ercur	У	

Parameter

Page 1 of 1



Calscience

Work Order: 16-06-1768

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 7470A	EPA 7470A Total	776	Mercury 04	1
EPA 8015B (M)	EPA 3510C	972	GC 48	1

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

Page 1 of 1



*

< >

1

2

3

4

5

6

7

В

F

Calscience

Work Order: 16-06-1768

Qualifiers Definition See applicable analysis comment. Less than the indicated value. Greater than the indicated value. Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification. Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control. The MS/MSD RPD was out of control due to suspected matrix interference. The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference. Surrogate recovery below the acceptance limit. Surrogate recovery above the acceptance limit. Analyte was present in the associated method blank. ΒU Sample analyzed after holding time expired. ΒV Sample received after holding time expired. CI See case narrative. Concentration exceeds the calibration range. ET Sample was extracted past end of recommended max. holding time. HD The chromatographic pattern was inconsistent with the profile of the reference fuel standard. HDH The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).

Glossary of Terms and Qualifiers

HDL The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).

Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is J estimated.

- JA Analyte positively identified but quantitation is an estimate.
- LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean). ME
- ND Parameter not detected at the indicated reporting limit.
- Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike Q concentration by a factor of four or greater.
- SG The sample extract was subjected to Silica Gel treatment prior to analysis.
- Х % Recovery and/or RPD out-of-range.
- Ζ Analyte presence was not confirmed by second column or GC/MS analysis.

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

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

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

																			P	age 1	6 of 1	8	_
P							T																Devision
20	\checkmark					×,					400 00000000000000000000000000000000000					 _		 		2	15	5	1 07-01
M	ъ ,					1.1	2											 		1. 	<u>.</u> S		- 60a
2	~			OTE NO.		(ope	2		_							 _					Ĩ	Ŭ,	\$
				T OR QU		(PRINT)	100		-	99 🗆 218.6	12 □ 961. 	∠ ⊡ (I ≁	Cr(V			 _				3	2	6	:
DATE	PAGE	NO.:		CONTAC		PLER(S)	a		8	X747(0208 🗖 X747	/0108-	letəM	122	Å		 _				30	2	23	
		P,O		LAB		Den a	õ	SES	is need	WIS 02	.28 🗆 022	8 🗆 s	НАЯ			 		 		De la	2 2	í.	ľ.
								NAL	blank a		32) (2000)	308) e	PCB									<u>م</u>	
								ED A			(1808)	es) es	Pest			 _				-		4	
								EST	ox pox							 _		 	_			23	
						G CODE		KEQU	ise che		(0070) S	ensnet elenate		_		_						1/12	
	20				Ch	2			Plea		(09	78) s				-					4.	2/3	
	Ř		6		-g-				ŀ	□ 09	IBE 🗆 83		BTE							H	1		
		NO.:	S		0				ŀ				нат)		
	ē	NAME / I	t d		R				ŀ	:e-C44	-030	90 🗆	нат	X						and a			Ł
	9	PROJECT	123	T CONT	redi	ä					ם פאס	(p)Hc	11 0							tion)		ition)	
		CLIENT	1	PROJEC	Mo	GLOBAL			ŀ		୦୪୭ 🏿	(6)Hc	11 0							ire/Affilia			2
		Ī									pə	netliT	bl∋i∃							(Signath	(Somati	(Signat	Γ
						3						рәліә	Pres	X						ived by:	ived b	ived by:	
					2	4. CI					pə	viese	Jdu	\mathbb{X}	,				_	Fl ^{Ree}	Rece	Rece	
					<i>B</i>	rent		IAND				NO.	ONT.	۲						2			
	call us.				ZI	2	ייייייייייייייייייייייייייייייייייייי	מ ב					<u>о</u>	()		 	ļ	 		- Fr			
	.com or				4	ep.		AYS				ATOLY		ader						9			
	rofinsus				Ц Ш	2190) ۱ ۱	201				ء		R		_	<u> </u>			- La		しく	┞
a	-5494 tales@et				STA')) (ARD"):	¥					TIME	10:							-	4	1
ence	14) 895 t us26_s		A,	2		reh	"STAND					MPLING		0000		 _							F
Iscie	427 • (7 , contac		A	Ū		-14L	w,TATno 	¥				SF	DATE	1/2						L L	2	<u> </u> −¢	4
Ca	32841-14 ormation		1211			E-MA	poly to ar				:			60			<u> </u>			10	2		
	we, CA 5 to off info		6)	Ul		R	ges may	÷[ĒR					Å							\$	6	X
	den Gro nple dro		6	JUC	0	71	th surchar	1 24 1	10 [1						hature)	(ature)	DNe)	ŧ
	Vay, Gar rice / sar	LIENT:	đđ.	2	ママ	681	TIME (Rus	Å	<u>DF</u>				AAA	- BV						by: (Sigr	DY: (Sig	by: (Sigr	ļ
	incoln V rrier serv	ATORY CI	1914	2	2	6		ME D/	JELT E					-79				Device and a	10.000	uished I	- And	quisted	1
	7440 L For cou	LABORA	ADDRE	H7		тен: 197	TURNA	ED SA	20			R	ONLY	\mathfrak{S}						Belinc	₩Z	Reline	1

5



Page 17 of 18 1768

Return to Contents

eurofins		WORK ORDER	NUMBER:	16-0 ^P	age 18 (788
Calscier		CHECKLIST	С	OOLER	<u> </u>)F_/_
	Pouselting		DA	te: 06 /	24	2016
TEMPERATURE: (Criteria: 0.0° Thermometer ID: SC2A (CF: 0.0 Sample(s) outside tempera	C – 6.0°C, not frozen except sedim °C); Temperature (w/o CF): <u>3 - 1</u> ature criteria (PM/APM contacted b ature criteria but received on ice/ch	ent/tissue) 5°C (w/ CF): _2 y:) illed on same day o	f sampling	⊐ Blank	 ☑ Sam	ple
□ Sample(s) received at ambier Ambient Temperature: □ Air □	nt temperature; placed on ice for tra I Filter	ansport by courier		Checke	ed by:	36
CUSTODY SEAL:Cooler□ Present and IntSample(s)□ Present and Int	act	Not Present	□ N/A □ N/A	Checke Checke	ed by:	<u>576</u>
SAMPLE CONDITION:				Yes	No	N/A
Chain-of-Custody (COC) docum	ent(s) received with samples			. Z		
COC document(s) received com □ Sampling date □ Sampli	ng time	containers ned date □ No relir	nguished time	. Z		
				. 🗗		
Sampler's name indicated on o	stent with COC			. 1		
Sample container (a) intact and	n good condition			. 9		
Draper container(3) intact and	requested					
Proper containers for analyses				. 1		
Sumclent volume/mass for anal	time					
Aguague camples for certain	analyses received within 15-minu	te holding time				
		d Oxvaen	· · · · · · · · · · · · · · · · · · ·	🗆		Þ
) poted on COC and/or sample cor	ntainer				
Proper preservation chemical(s	le(s) received for certain analyses					
	free of headspace			🗖		E
□ Volatile Organics □ Dise	solved Gases (RSK-175)	lved Oxygen (SM 4	500) Jach)			
□ Carbon Dioxide (SM 4500)) \Box Ferrous Iron (SM 3500) \Box I	Hydrogen Sunde (n	acity	п		
Tedlar [™] bag(s) free of conden	sation			•	_	
CONTAINER TYPE:		(Trip Bla		oer:	125DB	/
Aqueous: IVOA IVOAh I	I VOAna ₂ 🗆 100PJ 🗖 100PJna ₂	□ 125AGB □ 125A				
□ 125PBznna □ 250AGB □	250CGB 250CGBs 250PB			50 Ш 30(г	л.000 П	
	a₂ □ 1AGBs □ 1PB □ 1PBna L			L	- <u> </u>	
Solid: 40zCGJ 80zCGJ	□ 16ozCGJ □ Sleeve () □ I Sorbent Tube □ PUF □	Other Matrix ()):			······
Container: $A = Amber \mathbf{R} = Bottle$	C = Clear. E = Envelope. G = Glass.	I = Jar, P = Plastic, an	d Z = Ziploc/R	esealable	Bag	C
Dresonvative: $\mathbf{h} = \text{huffered} \mathbf{f} = \text{filter}$	red, $h = HCl$, $n = HNO_3$, $na = NaOH$, r	1a₂ = Na ₂ S ₂ O ₃ , p = H ₃	PO ₄ , Labe	led/Checl	ked by:	876
$\mathbf{s} = H_2 SO_4$, $\mathbf{u} = ultra$	-pure, znna = Zn (CH ₃ CO ₂) ₂ + NaOH			Review	ved by:	<u>74</u>

*

e de la transfere

201	5-04-10	Revision
-----	---------	----------

Return to Contents

WORK ORDER NUMBER: 16-07-0660

Calscience



🔅 eurofins



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For Client: Leighton Consulting, Inc. Client Project Name: LCI / 603287049 Attention: Meredith Church 17781 Cowan Suite 140 Irvine, CA 92614-6009

Nicole Scott

Approved for release on 07/14/2016 by: Nicole Scott Project Manager

ResultLink ▶

Email your PM >



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

7440 Lincoln Way, Garden Grove, CA 92841-1432 * TEL: (714) 895-5494 * FAX: (714) 894-7501 * www.calscience.com

CA ELAP ID: 2944 | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109

🛟 eurofins

6

Calscience

Contents

3

9 9

11

14

15

16

.

Client Pr Work Or	roject Name: der Number:	LCI / 603287049 16-07-0660	
1	Work Or	ler Narrative	
2	Client Sa 2.1 EPA 2.2 EPA 2.3 EPA	mple Data	•
3	Quality (3.1 MS/ 3.2 LCS	ontrol Sample Data	•
4	Sample	Analysis Summary	
5	Glossary	of Terms and Qualifiers.	

Chain-of-Custody/Sample Receipt Form.

Work Order: 16-07-0660

Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/12/16. They were assigned to Work Order 16-07-0660.

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

Holding Times:

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

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

Quality Control:

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

Subcontractor Information:

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

Additional Comments:

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

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



HCP-PT	16-07-0660-1-A	07/09/16	Aqueous	GC 48	07/12/16	07/13/16	160712B12
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Project: LCI / 603287049						Pa	ge 1 of 2
			Units:				ug/L
			Method:			E	PA 8015B (M)
Irvine, CA 92614-6009			Preparation	1:			EPA 3510C
17781 Cowan, Suite 140			Work Order	r:			16-07-0660
Leighton Consulting, Inc.			Date Recei	ved:			07/12/16

НСР-РТ	16-07-0660-1-A	07/09/16 11:00	Aqueous	GC 48	07/12/16	07/13/16 00:52	160712B12
Parameter		<u>Result</u>	<u>RL</u>	:	DF	Qualif	fiers
C6		ND	10	0	1.00		
C7		ND	10	0	1.00		
C8		ND	10	0	1.00		
C9-C10		ND	10	0	1.00		
C11-C12		ND	10	0	1.00		
C13-C14		ND	10	0	1.00		
C15-C16		ND	10	0	1.00		
C17-C18		ND	10	0	1.00		
C19-C20		ND	10	0	1.00		
C21-C22		ND	10	0	1.00		
C23-C24		ND	10	0	1.00		
C25-C28		ND	10	0	1.00		
C29-C32		ND	10	0	1.00		
C33-C36		ND	10	0	1.00		
C37-C40		ND	10	0	1.00		
C41-C44		ND	10	0	1.00		
C6-C44 Total		ND	10	0	1.00		
Surrogate		<u>Rec. (%)</u>	<u>Co</u>	ntrol Limits	<u>Qualifiers</u>		
n-Octacosane		82	68-	-140			



Method Blank	099-15-498-382	N/A	Aqueous	GC 48	07/12/16	07/12/16	160712B12
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Project: LCI / 603287049						Pa	ge 2 of 2
			Units:				ug/L
			Method:			E	PA 8015B (M)
Irvine, CA 92614-6009			Preparation	1:			EPA 3510C
17781 Cowan, Suite 140			Work Order	r:			16-07-0660
Leighton Consulting, Inc.			Date Recei	ved:			07/12/16

Method Blank	099-15-498-382	N/A	Aqueous	GC 48 07	7/12/16	07/12/16 23:35	160712B12
Parameter		<u>Result</u>	<u>RL</u>		<u>DF</u>	Qual	<u>ifiers</u>
C6		ND	100		1.00		
C7		ND	100		1.00		
C8		ND	100		1.00		
C9-C10		ND	100		1.00		
C11-C12		ND	100		1.00		
C13-C14		ND	100		1.00		
C15-C16		ND	100		1.00		
C17-C18		ND	100		1.00		
C19-C20		ND	100		1.00		
C21-C22		ND	100		1.00		
C23-C24		ND	100		1.00		
C25-C28		ND	100		1.00		
C29-C32		ND	100		1.00		
C33-C36		ND	100		1.00		
C37-C40		ND	100		1.00		
C41-C44		ND	100		1.00		
C6-C44 Total		ND	100		1.00		
Surrogate		<u>Rec. (%)</u>	<u>Cont</u>	rol Limits	<u>Qualifiers</u>		
n-Octacosane		70	68-14	40			



Leighton Consulting, Inc. Date Received:							07/12/16
17781 Cowan, Suite 140			Work Orde	r:			16-07-0660
Irvine, CA 92614-6009			Preparatior	ו:		EP.	A 3010A Total
-,			Method:				EPA 6010B
			Units:				ma/l
Project: 1 CI / 6032870/9			orinto.			Pa	ing/E
						14	
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
НСР-РТ	16-07-0660-1-B	07/09/16 11:00	Aqueous	ICP 7300	07/12/16	07/13/16 19:15	160712LA2
Parameter		<u>Result</u>	<u>RL</u>		DF	Qua	alifiers
Antimony		ND	0.0	0150	1.00		
Arsenic		0.0221	0.0	0100	1.00		
Barium		0.275	0.0	0100	1.00		
Beryllium		ND	0.0	0100	1.00		
Cadmium		ND	0.0	0100	1.00		
Chromium		ND	0.0	0100	1.00		
Cobalt		ND	0.0	0100	1.00		
Copper		0.0747	0.0	0100	1.00		
Lead		ND	0.0	0100	1.00		
Molybdenum		0.0225	0.0	0100	1.00		
Nickel		ND	0.0	0100	1.00		
Phosphorus		0.145	0.1	100	1.00		
Selenium		ND	0.0	0150	1.00		
Silver		ND	0.0	00500	1.00		
Thallium		ND	0.0	0150	1.00		
Vanadium		ND	0.0	0100	1.00		
Aluminum		ND	0.0	0500	1.00		
Calcium		206	0.1	100	1.00		
Iron		ND	0.1	100	1.00		
Magnesium		18.8	0.1	100	1.00		
Manganese		ND	0.0	00500	1.00		
Potassium		13.5	0.5	500	1.00		
Sodium		274	0.5	500	1.00		
Strontium		0.864	0.0	0200	1.00		
Tin		ND	0.0)500	1.00		
Titanium		ND	0.0	0300	1.00		
Boron		1.90	0.0	0200	1.00		
Silicon		14.3	0.0	0500	1.00		
Zinc		0.0321	0.0	0100	1.00		



Leighton Consulting, Inc.			07/12/16							
17781 Cowan, Suite 140			Work Order: 16-07-0660							
Irvine, CA 92614-6009			Preparation	eparation: EPA 3010A Total						
,			Method				EPA 6010B			
			Linits:				ma/l			
Project: LCI / 603287049			Onito.			Pa	ae 2 of 2			
							.90 _ 0			
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID			
Method Blank	097-01-003-15930	N/A	Aqueous	ICP 7300	07/12/16	07/13/16 18:32	160712LA2			
Parameter		Result	RL	:	DF	Qua	alifiers			
Antimony		ND	0.0	150	1.00					
Arsenic		ND	0.0	0100	1.00					
Barium		ND	0.0	0100	1.00					
Beryllium		ND	0.0	0100	1.00					
Cadmium		ND	0.0	0100	1.00					
Chromium		ND	0.0	0100	1.00					
Cobalt		ND	0.0	0100	1.00					
Copper		ND	0.0	0100	1.00					
Lead		ND	0.0	100	1.00					
Molybdenum		ND	0.0	100	1.00					
Nickel		ND	0.0	100	1.00					
Phosphorus		ND	0.1	00	1.00					
Selenium		ND	0.0	150	1.00					
Silver		ND	0.0	0500	1.00					
Thallium		ND	0.0	150	1.00					
Vanadium		ND	0.0	100	1.00					
Aluminum		ND	0.0	500	1.00					
Calcium		ND	0.1	00	1.00					
Iron		ND	0.1	00	1.00					
Magnesium		ND	0.1	00	1.00					
Manganese		ND	0.0	0500	1.00					
Potassium		ND	0.5	500	1.00					
Sodium		ND	0.5	500	1.00					
Strontium		ND	0.0	200	1.00					
Tin		ND	0.0	500	1.00					
Titanium		ND	0.0	300	1.00					
Boron		ND	0.0	200	1.00					
Silicon		ND	0.0	500	1.00					
Zinc		ND	0.0	100	1.00					



Leighton Consulting, Inc. Date Received:							07/12/16		
17781 Cowan, Suite 140			Work Orde	r:		16-07-0660			
Irvine, CA 92614-6009			Preparation	n:		EPA 7470A Total			
	Method:						EPA 7470A		
					mg/L				
Project: LCI / 603287049						Pa	ige 1 of 1		
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID		
НСР-РТ	16-07-0660-1-B	07/09/16 11:00	Aqueous	Mercury 04	07/12/16	07/13/16 18:07	160712LA3		
Parameter		Result	RL	:	DF	Qua	alifiers		
Mercury		ND	0.0	000500	1.00				
Method Blank	099-04-008-7920	N/A	Aqueous	Mercury 04	07/12/16	07/12/16 15:52	160712LA3		
Parameter		Result	RL		DF	Qua	alifiers		
Mercury		ND	0.0	00500	1.00				

Leighton Consulting, Inc.	Date Received:	07/12/16
17781 Cowan, Suite 140	Work Order:	16-07-0660
Irvine, CA 92614-6009	Preparation:	EPA 3010A Total
	Method:	EPA 6010B
Project: LCI / 603287049		Page 1 of 2

Project: LCI / 603287049

Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepared	Date Ana	lyzed	MS/MSD Ba	tch Number
HCP-PT	Sample		Aqueous		ICP 7300	07/12/16	07/13/16	19:15	160712SA2	
HCP-PT	Matrix Spike		Aqueous	i	ICP 7300	07/12/16	07/13/16	19:16	160712SA2	
HCP-PT	Matrix Spike	Duplicate	Aqueous	i	ICP 7300	07/12/16	07/13/16	19:18	160712SA2	
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	<u>MS</u> Conc.	<u>MS</u> %Ree	<u>MSD</u> c. <u>Conc.</u>	<u>MSD</u> <u>%Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	Qualifiers
Antimony	ND	0.5000	0.5450	109	0.5359	107	72-132	2	0-10	
Arsenic	0.02212	0.5000	0.5667	109	0.5610	108	80-140	1	0-11	
Barium	0.2749	0.5000	0.7906	103	0.7755	100	87-123	2	0-6	
Beryllium	ND	0.5000	0.5243	105	0.5131	103	89-119	2	0-8	
Cadmium	ND	0.5000	0.5078	102	0.5001	100	82-124	2	0-7	
Chromium	ND	0.5000	0.5102	102	0.5001	100	86-122	2	0-8	
Cobalt	ND	0.5000	0.5170	103	0.5109	102	83-125	1	0-7	
Copper	0.07472	0.5000	0.6214	109	0.6079	107	78-126	2	0-7	
Lead	ND	0.5000	0.4909	98	0.4875	97	84-120	1	0-7	
Molybdenum	0.02251	0.5000	0.5398	103	0.5364	103	78-126	1	0-7	
Nickel	ND	0.5000	0.5224	104	0.5148	103	84-120	1	0-7	
Phosphorus	0.1449	0.5000	0.7282	117	0.7206	115	80-140	1	0-6	
Selenium	ND	0.5000	0.5850	117	0.5728	115	79-127	2	0-9	
Silver	ND	0.2500	0.2642	106	0.2589	104	86-128	2	0-7	
Thallium	ND	0.5000	0.4769	95	0.4776	96	79-121	0	0-8	
Vanadium	ND	0.5000	0.5134	103	0.5041	101	88-118	2	0-7	
Aluminum	ND	0.5000	0.5545	111	0.5656	113	73-145	2	0-16	
Calcium	206.0	0.5000	201.9	4X	207.4	4X	77-113	4X	0-11	Q
Iron	ND	0.5000	0.4233	85	0.4278	86	65-149	1	0-21	
Magnesium	18.77	0.5000	19.22	4X	18.81	4X	56-140	4X	0-11	Q
Manganese	ND	0.5000	0.5012	100	0.4915	98	86-116	2	0-7	
Potassium	13.51	5.000	18.77	105	19.50	120	83-131	4	0-7	
Sodium	273.7	5.000	275.5	4X	268.0	4X	73-127	4X	0-9	Q
Strontium	0.8638	0.5000	1.366	100	1.349	97	81-123	1	0-6	
Tin	ND	0.5000	0.5542	111	0.5434	109	49-151	2	0-5	
Titanium	ND	0.5000	0.5109	102	0.4996	100	92-128	2	0-5	
Boron	1.902	0.5000	2.440	108	2.391	98	81-135	2	0-7	
Silicon	14.26	0.5000	14.91	4X	14.61	4X	24-180	4X	0-15	Q
Zinc	0.03213	0.5000	0.5756	109	0.6166	117	89-131	7	0-8	



Leighton Consulting, Inc.				Da	ate Received:					07/12/16
17781 Cowan, Suite 140				W	ork Order:				16	6-07-0660
Irvine, CA 92614-6009				Pr	eparation:				EPA 74	70A Total
				Me	ethod:				E	PA 7470A
Project: LCI / 603287049									Page 2	? of 2
Quality Control Sample ID	Туре		Matrix		Instrument	Date Prepared	Date Anal	yzed	MS/MSD Bat	tch Number
16-07-0186-21	Sample		Sea Wate	ər	Mercury 04	07/12/16	07/12/16 1	15:56	160712SA3	
16-07-0186-21	Matrix Spike		Sea Wate	er	Mercury 04	07/12/16	07/12/16 1	15:59	160712SA3	
16-07-0186-21	Matrix Spike	Duplicate	Sea Wate	er	Mercury 04	07/12/16	07/12/16 1	16:01	160712SA3	
Parameter	<u>Sample</u> <u>Conc.</u>	<u>Spike</u> Added	<u>MS</u> Conc.	<u>MS</u> %Re	<u>MSD</u> ec. <u>Conc.</u>	<u>MSD</u> %Rec.	%Rec. CL	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	ND	0.01000	0.009863	99	0.009374	4 94	55-133	5	0-20	





Leighton Consulting, Inc.				Date Receiv	red:					07/12/16
17781 Cowan, Suite 140				Work Order						16-07-0660
Irvine, CA 92614-6009				Preparation					E	EPA 3510C
				Method:					EPA	8015B (M)
Project: LCI / 603287049									Page	1 of 3
Quality Control Sample ID	Туре	Matrix	x	Instrument	Date Prep	bared	Date A	Analyzed	LCS/LCSD B	atch Number
Quality Control Sample ID 099-15-498-382	Type LCS	Matrix Aque	x eous	Instrument GC 48	Date Prep 07/12/16	bared	Date / 07/12/	Analyzed 16 23:51	LCS/LCSD B	atch Number
Quality Control Sample ID 099-15-498-382 099-15-498-382	Type LCS LCSD	Matrix Aque Aque	x eous eous	Instrument GC 48 GC 48	Date Prep 07/12/16 07/12/16	bared	Date / 07/12/ 07/13/	Analyzed 16 23:51 16 00:06	LCS/LCSD B 160712B12 160712B12	atch Number
Quality Control Sample ID 099-15-498-382 099-15-498-382 Parameter	Type LCS LCSD Spike Added	Matrix Aque Aque	x eous eous LCS %Rec.	Instrument GC 48 GC 48 LCSD Conc.	Date Prep 07/12/16 07/12/16 LCSD %Rec.	oared <u>%Rec</u>	Date / 07/12/ 07/13/ . CL	Analyzed 16 23:51 16 00:06 <u>RPD</u>	LCS/LCSD B 160712B12 160712B12 <u>RPD CL</u>	atch Number

Return to Contents

Page 2 of 3



Leighton Consulting, Inc.	Date Received:	07/12/16
17781 Cowan, Suite 140	Work Order:	16-07-0660
Irvine, CA 92614-6009	Preparation:	EPA 3010A Total
	Method:	EPA 6010B

Project: LCI / 603287049

Quality Control Sample ID	Туре	Matrix	Instrumer	nt Date Prep	ared Date Ana	lyzed LCS Batc	h Number
097-01-003-15930	LCS	Aqueo	ous ICP 7300	07/12/16	07/13/16	18:34 160712L	42
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	<u>%Rec. CL</u>	ME CL	<u>Qualifiers</u>
Antimony		0.5000	0.5438	109	80-120	73-127	
Arsenic		0.5000	0.5505	110	80-120	73-127	
Barium		0.5000	0.5527	111	80-120	73-127	
Beryllium		0.5000	0.5251	105	80-120	73-127	
Cadmium		0.5000	0.5499	110	80-120	73-127	
Chromium		0.5000	0.5363	107	80-120	73-127	
Cobalt		0.5000	0.5703	114	80-120	73-127	
Copper		0.5000	0.5178	104	80-120	73-127	
Lead		0.5000	0.5445	109	80-120	73-127	
Molybdenum		0.5000	0.5464	109	80-120	73-127	
Nickel		0.5000	0.5691	114	80-120	73-127	
Phosphorus		0.5000	0.5952	119	80-120	73-127	
Selenium		0.5000	0.5404	108	80-120	73-127	
Silver		0.2500	0.2584	103	80-120	73-127	
Thallium		0.5000	0.5336	107	80-120	73-127	
Vanadium		0.5000	0.5184	104	80-120	73-127	
Aluminum		0.5000	0.4798	96	80-120	73-127	
Calcium		0.5000	0.5404	108	80-120	73-127	
Iron		0.5000	0.4723	94	80-120	73-127	
Magnesium		0.5000	0.5290	106	80-120	73-127	
Manganese		0.5000	0.5449	109	80-120	73-127	
Potassium		5.000	4.937	99	80-120	73-127	
Sodium		5.000	4.970	99	80-120	73-127	
Strontium		0.5000	0.5274	105	80-120	73-127	
Tin		0.5000	0.5861	117	80-120	73-127	
Titanium		0.5000	0.5344	107	80-120	73-127	
Boron		0.5000	0.5151	103	80-120	73-127	
Silicon		0.5000	0.5696	114	80-120	73-127	
Zinc		0.5000	0.5594	112	80-120	73-127	

Total number of LCS compounds: 29 Total number of ME compounds: 0 Total number of ME compounds allowed: 1 LCS ME CL validation result: Pass



0				
(2	CC	10	n	00
Cal	130	IC		

Leighton Consulting, Inc.			Date Receive	ed:		07/12/16
17781 Cowan, Suite 140			Work Order:			16-07-0660
Irvine, CA 92614-6009			Preparation:			EPA 7470A Total
			Method:			EPA 7470A
Project: LCI / 603287049						Page 3 of 3
Quality Control Sample ID	Туре	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number

	Type	IVIALITA	Instrument	Dale Flepaleu	Date Analyzeu	LCS Datch Number
099-04-008-7920	LCS	Aqueous	Mercury 04	07/12/16	07/12/16 15:54	160712LA3
Parameter		Spike Added	Conc. Recover	red LCS %Re	<u>c. %Rec</u>	. CL Qualifiers
Mercury		0.01000	0.009331	93	80-120)



Page 1 of 1



Calscience

Sample Analysis Summary Report

Work Order: 16-07-0660

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 7470A	EPA 7470A Total	868	Mercury 04	1
EPA 8015B (M)	EPA 3510C	682	GC 48	1

Return to Contents

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

Page 1 of 1



Calscience

Work Order: 16-07-0660

Qualifiers Definition * See applicable analysis comment. Less than the indicated value. < > Greater than the indicated value. Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further 1 clarification. 2 Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification. 3 Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control. 4 The MS/MSD RPD was out of control due to suspected matrix interference. 5 The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference. 6 Surrogate recovery below the acceptance limit. 7 Surrogate recovery above the acceptance limit. В Analyte was present in the associated method blank. ΒU Sample analyzed after holding time expired. ΒV Sample received after holding time expired. CI See case narrative. F Concentration exceeds the calibration range. ET Sample was extracted past end of recommended max. holding time. HD The chromatographic pattern was inconsistent with the profile of the reference fuel standard. HDH The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).

Glossary of Terms and Qualifiers

HDL The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).

- J Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
- JA Analyte positively identified but quantitation is an estimate.
- ME LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
- ND Parameter not detected at the indicated reporting limit.
- Q Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
- SG The sample extract was subjected to Silica Gel treatment prior to analysis.
- X % Recovery and/or RPD out-of-range.
- Z Analyte presence was not confirmed by second column or GC/MS analysis.

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

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

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

eurofins						I						CHA	IN OF, CUST	DDY RECORI	۵
	Calscie	nce				ettî:	U.BALINE U	SEONLY			DATE	Γ_{ii}	9/16/	•	
7440 Lincoln Way, Garden Grove, CA 9	32841-1427 • (714)	895-5494					9		990	0	PAGE			-	
Levanta survey cuent	JH M			call de.			OLIENT PRO		NUMBER.	.tal	6		P.O. NO.:		
ADDRESS ASI PUM							PROJECT CO	INTACT:					SAMPLER(S): (PRI	T)	T
or the second			STATE:	ZIP			Mere		JUNIC	ų			Ð		
0hah LLh bhb	MAIL:	hallian	Hanan	10)'G	-					REQ	UESTE	DAN	ALYSES		
TURNAROUND TIME (Rush surcharges ma SAME DAY 24 HR	y apply to any TAT not "	'STANDARD");" 72 HR	5 DAYS	D STAND,	ARD		24	<u>a</u>	lease chec	k box or 1	ili in blank	as neede			
					LOG CODE:	6.4	WE-Je ht								
SPECIAL INSTRUCTIONS:						. , , ,,	19-9) 1 forma	บลอง					****		
					pə. pənseq	tered	2110 (Hal	u Al							
LAB SAMPLE ID	SAMF	PLING	MATRIX	0. RO	npreserv	li-1 bl9i	DID SIQ	Lhl							
UHAD-DT	7/9/10	LDD LDD	N	CONT.		н Н) X) X								
				Ś											<u> </u>
															1
								_							
								-							
															1
Relinquished by: (Slangure)	Melle			Rec	eived by: (Sig	inature/Aft	iliation)						Date:	Time:	Г
Relinquished by: (Signature)				Rec	eived by: (Sig	inature/Aft	iliation)						Date:	Time:	
Relinquished by: (Signature)			(Fela	V Rec	eived aby: (Sig	Inature/Aft	iliation)				ý		Date: Julic	Time: D950	
			1			•								06/02/14 Revis	<u>io</u>

. 4.

Page 16 of 18

Return to Contents

cl


seurofins							
Calscienc	e SAMPLE RECEIPT	CHECKLIST	C	OOLER	<u>/</u> c)F _/	
CLIENT: Leighton	Consulting		DA	re: 07 /	12	/ 2016	
TEMPERATURE: (Criteria: 0.0°C Thermometer ID: SC1B (CF: 0.0°C Sample(s) outside temperate Sample(s) outside temperate Sample(s) received at ambient Ambient Temperature:	- 6.0°C, not frozen except sedim C); Temperature (w/o CF): <u>うつ</u> ure criteria (PM/APM contacted b ure criteria but received on ice/ch temperature; placed on ice for tra Filter	nent/tissue) <u> </u> °C (w/ CF): <u> </u> oy:) nilled on same day c ansport by courier	g-g°C;∫	2 Blank Checke	⊡ Sam d by:	ple ঠንሪ	
CUSTODY SEAL:Cooler□ Present and IntaSample(s)□ Present and Inta	ct □ Present but Not Intact ct □ Present but Not Intact	Not Present	□ N/A □ N/A	Checke Checke	d by: d by:	876 836	
SAMPLE CONDITION: Chain-of-Custody (COC) docume COC document(s) received comp	nt(s) received with samples lete g time	containers		Yes	No D	N/A □ □	
□ No analysis requested □ No Sampler's name indicated on CO Sample container label(s) consist Sample container(s) intact and in Proper containers for analyses re Sufficient volume/mass for analyses Samples received within holding	Iot relinquished ☐ No relinquish C ent with COC good condition quested ses requested	hed date ,⊒√No relin	nquished time				
Aqueous samples for certain a pH □ Residual Chlorine Proper preservation chemical(s) Unpreserved aqueous sample □ Volatile Organics □ Total	Inalyses received within 15-minut □ Dissolved Sulfide □ Dissolve noted on COC and/or sample cor (s) received for certain analyses Metals □ Dissolved Metals	te holding time d Oxygenn ntainer				J D	
Container(s) for certain analysis f Volatile Organics Disso Carbon Dioxide (SM 4500)	ree of headspace lved Gases (RSK-175) □ Disso □ Ferrous Iron (SM 3500) □ I	lved Oxygen (SM 4 Hydrogen Sulfide (H	500) lach)	. 🗆		Ŗ	
Tedlar™ bag(s) free of condensa CONTAINER TYPE: Aqueous: □ VOA □ 125PBznna □ 250AGB □ 500PB □ 1AGB □ 1AGB □ 1AGBna2 Solid: □ 4ozCGJ □ 8ozCGJ Air: □ Tedlar™ □ Canister □ S Container: A = Amber. B = Bottle. C	tion $(OAna_2 \square 100PJ \square 100PJna_2 OCGB \square 250CGBs \square 250PB J \square 1AGBs \square 1PB \square 1PBna [16ozCGJ \square Sleeve () \square Gorbent Tube \square PUF □= Clear, E = Envelope, G = Glass, J$	(Trip Bla □ 125AGB □ 125A □ 250PBn □ 500A □ □ EnCores [®] () □ Other Matrix (= Jar, P = Plastic, an	nk Lot Numb AGBh □ 125/ GB □ 500AG □ □ □ TerraCores [®]): I d z = Ziploc/Re	• GBp □ •J □ 500/ □ •J □ • () □	 AGJs) 	
Preservative: $\mathbf{b} = \text{buffered}, \mathbf{f} = \text{filtere}$ $\mathbf{s} = H_2 SO_4, \mathbf{u} = \text{ultra-p}$	d, h = HCl, n = HNO ₃ , na = NaOH, n ure, znna = Zn(CH ₃ CO ₂) ₂ + NaOH	$\mathbf{na_2} = \mathbf{Na_2S_2O_3}, \mathbf{p} = \mathbf{H_3}$	PO ₄ , Label	ed/Check Review	ed by: _ ed by: _	016 (107	

. . . . **.**

Return to Contents