LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone: (512)356-6022
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August 14, 2017

TERRY McCALPIN
CITY OF LEONARD
PO BOX 1270
Leonard, TX 75452

RE: Final Analytical Report
ELS Sample Q1732973010
CITY OF LEONARD

Attn:

Enclosed are the analytical results for the above referenced sample received by LCRA Environmental Laboratory Services. Results reported herein conform to the most current NELAP standards, where applicable, unless otherwise narrated in the body of the report. This final report provides results related only to the sample as received.

Thank you for selecting ELS for your analytical needs. If you have any questions regarding this report, please contact us at (512) 356-6022. We look forward to assisting you again.

Authorized for release by:

Angel Mata, Jr

angel.mata@lcra.org

Project Manager

Enclosures

9640113

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SAMPLE SUMMARY

Workorder: Q1732973

Lab ID	Sample ID	matrix	Date Collected	Date Received
Q1732973010	1752985	Drinking Water	8/7/2017 15:32	8/8/2017 09:00

Report Definitions

RL	Reporting Limit
MCL	Maximum Contaminant Level
DF	Dilution Factor
Qual	Qualifiers

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ANALYTICAL RESULTS

Workorder: Q1732973

Lab ID:	Q1732973010	**Date Received:**	8/8/2017 09:00	**Matrix:**	Drinking Water
Sample ID:	1752985	**Date Collected:**	8/7/2017 15:32	**Sample Type:**	SAMPLE
Facility:	DS01	**Location:**	221 WESTLAKE, LEONARD		
Sample	DBP2-01	**Client ID:**	TX0740005		

Parameter	Result	Units	MRL	LOD	MCL	DF	Prepared	By	Analyzed	By	Qual
552.2 Haloacetic Acids by GC											
Analysis Desc: 552.2 Haloacetic Acids by GC											
Bromochloroacetic Acid	1.30	ug/L	1.00	0.500		1	08/11/17 17:08	AFP	08/11/17 21:34	JC	N
Dibromoacetic Acid	2.50	ug/L	1.00	0.500		1	08/11/17 17:08	AFP	08/11/17 21:34	JC	N
Dichloroacetic Acid	<1.00	ug/L	1.00	0.500		1	08/11/17 17:08	AFP	08/11/17 21:34	JC	N
Monobromoacetic Acid	<1.00	ug/L	1.00	0.500		1	08/11/17 17:08	AFP	08/11/17 21:34	JC	N
Monochloroacetic Acid	<1.00	ug/L	1.00	0.500		1	08/11/17 17:08	AFP	08/11/17 21:34	JC	N
Total Regulated HAA	2.50	ug/L	1.00	0.500	60	1	08/11/17 17:08	AFP	08/11/17 21:34	JC	
Trichloroacetic acid	<1.00	ug/L	1.00	0.500		1	08/11/17 17:08	AFP	08/11/17 21:34	JC	N
2,3-Dibromopropionic acid (S)	96.2	%				1	08/11/17 17:08	AFP	08/11/17 21:34	JC	
E524.2 Volatiles by GC/MS											
Analysis Desc: E524.2 Volatiles by GC/MS											
Bromodichloromethane	1.81	ug/L	1.00	0.500		1			08/10/17 01:49	MH	N
Bromoform	7.15	ug/L	1.00	0.500		1			08/10/17 01:49	MH	N
Chloroform	<1.00	ug/L	1.00	0.500		1			08/10/17 01:49	MH	N
Dibromochloromethane	5.53	ug/L	1.00	0.500		1			08/10/17 01:49	MH	N
Total Trihalomethanes	14.5	ug/L	1.00	0.500	80	1			08/10/17 01:49	MH	
1,2-Dichlorobenzene-d4 (S)	91.4	%				1			08/10/17 01:49	MH	
4-Bromofluorobenzene (S)	83.7	%				1			08/10/17 01:49	MH	

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PARAMETER QUALIFIERS

Workorder: Q1732973

Parameter Qualifiers	
J	Analyte Detected Below Quantitation Limit
N	N|Not Accredited
SH	Spike Recovery High
SL	Spike Recovery Low

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QUALITY CONTROL

QC Batch: 63065

QC Batch Method: 552.2 Haloacetic Acids by GC

Analytical Method: 552.2 Haloacetic Acids by GC

MATRIX SPIKE: 907506 Original Sample: Q1732972001

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limit	Qual
Bromochloroacetic Acid	ug/L	5.1	100	106	101	70-130	
Dibromoacetic Acid	ug/L	1.4	100	92.8	91.4	70-130	
Trichloroacetic acid	ug/L	6.7	100	99.5	92.8	70-130	
Monobromoacetic Acid	ug/L	0	100	106	106	70-130	
Monochloroacetic Acid	ug/L	0	100	63.9	63.9	70-130	SL
Dichloroacetic Acid	ug/L	13.9	100	127	113	70-130	
2,3-Dibromopropionic acid	%				82.2	70-130	

MATRIX SPIKE: 907509 Original Sample: Q1733014001

Parameter	Units	Original Result	Spike Conc.	MS Result	MS % Rec	% Rec Limit	Qual
2,3-Dibromopropionic acid	%				68.6	70-130	SL
Bromochloroacetic Acid	ug/L	3.6	100	88.8	85.2	70-130	
Dibromoacetic Acid	ug/L	2.8	100	79.6	76.8	70-130	
Trichloroacetic acid	ug/L	1.4	100	74.7	73.3	70-130	
Monobromoacetic Acid	ug/L	0	100	96.7	96.7	70-130	
Monochloroacetic Acid	ug/L	0	100	61.3	61.3	70-130	SL
Dichloroacetic Acid	ug/L	3.7	100	102	98.3	70-130	

Qualifiers

SL - Spike Recovery Low

SH - Spike Recovery High

R - RPD Outside Recovery Limit

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QUALITY CONTROL

QC Batch: 62839

QC Batch Method: E524.2 Volatiles by GC/MS

Analytical Method: E524.2 Volatiles by GC/MS

LABORATORY CONTROL SAMPLE: 904660

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qual
1,2-Dichlorobenzene-d4	%	25			90.2	90.9	70-130	.442		
4-Bromofluorobenzene	%	25			88.2	87.7	70-130	.456		
Dibromochloromethane	ug/L	50	44	46.1	88	92.2	70-130	4.66	20	
Chloroform	ug/L	50	45.1	47	90.3	94	70-130	4.13	20	
Bromoform	ug/L	50	42.1	44.4	84.3	88.8	70-130	5.32	20	
Bromodichloromethane	ug/L	50	44.3	46	88.6	92.1	70-130	3.77	20	

Qualifiers

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QUALITY CONTROL

QC Batch: 63065

QC Batch Method: 552.2 Haloacetic Acids by GC

Analytical Method: 552.2 Haloacetic Acids by GC

LABORATORY CONTROL SAMPLE: 907501

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qual
2,3-Dibromopropionic acid	%	50			81.2	79.6	70-130	1.99		
Bromochloroacetic Acid	ug/L	50	47.2	47.4	94.4	94.8	70-130	.423	30	
Dibromoacetic Acid	ug/L	50	44.7	44.8	89.4	89.6	70-130	.223	30	
Trichloroacetic acid	ug/L	50	46.9	44.6	93.8	89.2	70-130	5.03	30	
Monobromoacetic Acid	ug/L	50	47.1	47.1	94.2	94.2	70-130	0	30	
Monochloroacetic Acid	ug/L	50	56.4	54.7	113	109	70-130	3.06	30	
Dichloroacetic Acid	ug/L	50	58.3	54.7	117	109	70-130	6.37	30	

LABORATORY CONTROL SAMPLE: 907507

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qual
2,3-Dibromopropionic acid	%	50			79.6	95.4	70-130	18.1		
Bromochloroacetic Acid	ug/L	50	47.4	52.1	94.8	104	70-130	9.45	30	
Dibromoacetic Acid	ug/L	50	44.8	51.7	89.6	103	70-130	14.3	30	
Trichloroacetic acid	ug/L	50	44.6	50.1	89.2	100	70-130	11.6	30	
Monobromoacetic Acid	ug/L	50	47.1	49.1	94.2	98.2	70-130	4.16	30	
Monochloroacetic Acid	ug/L	50	54.7	51.3	109	103	70-130	6.42	30	
Dichloroacetic Acid	ug/L	50	54.7	55	109	110	70-130	.547	30	

Qualifiers

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QUALITY CONTROL

QC Batch: 62839

QC Batch Method: E524.2 Volatiles by GC/MS

Analytical Method: E524.2 Volatiles by GC/MS

MRL: 904658

Parameter	Units	Spike Conc.	MRL Result	MRL % Rec	% Rec Limit	Qual
Dibromochloromethane	ug/L	1	.975	97.5	50-150	
Chloroform	ug/L	1	1.17	117	50-150	
Bromoform	ug/L	1	.954	95.4	50-150	
Bromodichloromethane	ug/L	1	.999	99.9	50-150	

Qualifiers

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QUALITY CONTROL

QC Batch: 63065

QC Batch Method: 552.2 Haloacetic Acids by GC

Analytical Method: 552.2 Haloacetic Acids by GC

MRL: 907505

Parameter	Units	Spike Conc.	MRL Result	MRL % Rec	% Rec Limit	Qual
Bromochloroacetic Acid	ug/L	1	1.2	120	50-150	
Dibromoacetic Acid	ug/L	1	1.1	110	50-150	
Trichloroacetic acid	ug/L	1	1.3	130	50-150	
Monobromoacetic Acid	ug/L	1	.7	70	50-150	
Monochloroacetic Acid	ug/L	1	.5	50	50-150	
Dichloroacetic Acid	ug/L	1	1.2	120	50-150	

Qualifiers

SL - Spike Recovery Low

SH - Spike Recovery High

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QUALITY CONTROL

QC Batch: 62839

QC Batch Method: E524.2 Volatiles by GC/MS

Analytical Method: E524.2 Volatiles by GC/MS

METHOD BLANK: 904662

Parameter	Units	Blank Result	Reporting Limit	Qual
Bromoform	ug/L	<1.00	1.00	
Dibromochloromethane	ug/L	<1.00	1.00	
Bromodichloromethane	ug/L	<1.00	1.00	
Chloroform	ug/L	<1.00	1.00	

Qualifiers

SL - Spike Recovery Low

SH - Spike Recovery High

R - RPD Outside Recovery Limit

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QUALITY CONTROL

QC Batch: 63065

QC Batch Method: 552.2 Haloacetic Acids by GC

Analytical Method: 552.2 Haloacetic Acids by GC

METHOD BLANK: 907503

Parameter	Units	Blank Result	Reporting Limit	Qual
Dibromoacetic Acid	ug/L	<1.00	1.00	
Bromochloroacetic Acid	ug/L	<1.00	1.00	
Trichloroacetic acid	ug/L	<1.00	1.00	
Dichloroacetic Acid	ug/L	<1.00	1.00	
Monobromoacetic Acid	ug/L	<1.00	1.00	
Monochloroacetic Acid	ug/L	<1.00	1.00	

Qualifiers

SL - Spike Recovery Low

SH - Spike Recovery High

R - RPD Outside Recovery Limit

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QUALITY CONTROL

QC Batch: 62839

QC Batch Method: E524.2 Volatiles by GC/MS

Analytical Method: E524.2 Volatiles by GC/MS

METHOD BLANK: 904662

Parameter	Units	Blank Result	Reporting Limit	Qual
1,2-Dichlorobenzene-d4	%	89.8	70-130	
4-Bromofluorobenzene	%	82.1	70-130	

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QUALITY CONTROL

QC Batch: 63065

QC Batch Method: 552.2 Haloacetic Acids by GC

Analytical Method: 552.2 Haloacetic Acids by GC

METHOD BLANK: 907503

Parameter	Units	Blank Result	Reporting Limit	Qual
2,3-Dibromopropionic acid	%	70.2	70-130	

Qualifiers

SL - Spike Recovery Low

SH - Spike Recovery High

R - RPD Outside Recovery Limit