

Daily Analysis Runlog For Sequence/QC Batch ID # LB92371

Review By		Review On				
SubDirectory		LB92371		Test : Anions		
STD. NAME		STD REF.#				
ICAL Standard		WP60078,WP60079,WP60080,WP60081,WP60082,WP60083,WP60084				
ICV Standard		WP60085				
CCV Standard		WP60581				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP60582				
Chk Standard		WP60018,WP60019				
Sr#	SampleId	ClientID	QcType	Date	Comment	Status
1	STD1	STD1	CAL1	12/04/17 10:36		OK
2	STD2	STD2	CAL2	12/04/17 11:08		OK
3	STD3	STD3	CAL3	12/04/17 11:40		OK
4	STD4	STD4	CAL4	12/04/17 12:12		OK
5	STD5	STD5	CAL5	12/04/17 12:44		OK
6	STD6	STD6	CAL6	12/04/17 13:16		OK
7	STD7	STD7	CAL7	12/04/17 13:48		OK
8	ICV1	ICV1	ICV	12/04/17 14:19		OK
9	ICB1	ICB1	ICB	12/04/17 14:51		OK
10	CCV1	CCV1	CCV	12/26/17 09:40		OK
11	CCB1	CCB1	CCB	12/26/17 10:11		OK
12	LB92371BLS	LB92371BLS	MB	12/26/17 10:42		OK
13	LB92371BSS	LB92371BSS	LCS	12/26/17 11:13		OK
14	I7064-01	SAMPLE-1	SAM	12/26/17 11:44		OK
15	I7064-03	SAMPLE-2	SAM	12/26/17 12:15		OK
16	I7064-05	SAMPLE-3	SAM	12/26/17 12:46		OK
17	I7064-07	SAMPLE-4	SAM	12/26/17 13:17		OK
18	I7064-09	SAMPLE-5	SAM	12/26/17 13:48		OK
19	I7064-11	SAMPLE-6	SAM	12/26/17 14:19		OK
20	I7064-13	SAMPLE-7	SAM	12/26/17 14:50		OK
21	I7064-15	SAMPLE-8	SAM	12/26/17 15:21		OK

Daily Analysis Runlog For Sequence/QC Batch ID # LB92371

Review By		Review On				
SubDirectory		LB92371		Test : Anions		
STD. NAME		STD REF.#				
ICAL Standard		WP60078,WP60079,WP60080,WP60081,WP60082,WP60083,WP60084				
ICV Standard		WP60085				
CCV Standard		WP60581				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP60582				
Chk Standard		WP60018,WP60019				
22	CCV2	CCV2	CCV	12/26/17 15:52		OK
23	CCB2	CCB2	CCB	12/26/17 16:23		OK
24	I7064-17	SAMPLE-9	SAM	12/26/17 16:54		OK
25	I7064-19	SAMPLE-10	SAM	12/26/17 17:25		OK
26	I7064-03DUP	SAMPLE-2DUP	DUP	12/26/17 17:56		OK
27	CCV3	CCV3	CCV	12/26/17 19:28		OK
28	CCB3	CCB3	CCB	12/26/17 19:59		OK
29	CCV4	CCV4	CCV	12/27/17 10:54		OK
30	CCB4	CCB4	CCB	12/27/17 11:39		OK
31	LB92371BLS2	LB92371BLS2	MB	12/27/17 12:10		OK
32	LB92371BSS2	LB92371BSS2	LCS	12/27/17 12:41		OK
33	I7064-03MS	SAMPLE-2MS	MS	12/27/17 13:13		OK
34	I7064-03MSD	SAMPLE-2MSD	MSD	12/27/17 13:44		OK
35	CCV5	CCV5	CCV	12/27/17 14:15		OK
36	CCB5	CCB5	CCB	12/27/17 14:46		OK



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Report of Analysis

Client:		Date Collected:	12/22/2017 12:00:00 AM
Project:	LB92371	Date Received:	12/22/2017 12:00:00 AM
Client Sample ID:	SAMPLE-1	SDG No.:	LB92371
Lab Sample ID:	I7064-01	Matrix:	Solid
Level (low/med):	low	% Solid:	91.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.21		0.54	mg/Kg		12/26/2017	9056
	Chloride	0.59		1	0.035		0.16	mg/Kg		12/26/2017	9056
	Fluoride	0.096	J	1	0.018		0.11	mg/Kg		12/26/2017	9056
	Nitrate	0.13		1	0.012		0.12	mg/Kg		12/26/2017	9056
	Nitrite	0	U	1	0.011		0.17	mg/Kg		12/26/2017	9056
	Phosphorus, Ortho	0	U	1	0.0022		0.26	mg/Kg		12/26/2017	9056
	Sulfate	8.8		1	0.1		0.82	mg/Kg		12/26/2017	9056



Report of Analysis

Client:		Date Collected:	12/22/2017 12:00:00 AM
Project:	LB92371	Date Received:	12/22/2017 12:00:00 AM
Client Sample ID:	SAMPLE-2	SDG No.:	LB92371
Lab Sample ID:	I7064-03	Matrix:	Solid
Level (low/med):	low	% Solid:	89.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.21		0.56	mg/Kg		12/26/2017	9056
	Chloride	0.77		1	0.036		0.17	mg/Kg		12/26/2017	9056
	Fluoride	0.098	J	1	0.019		0.11	mg/Kg		12/26/2017	9056
	Nitrate	0.13		1	0.012		0.13	mg/Kg		12/26/2017	9056
	Nitrite	0	U	1	0.011		0.17	mg/Kg		12/26/2017	9056
	Phosphorus, Ortho	0	U	1	0.0022		0.27	mg/Kg		12/26/2017	9056
	Sulfate	11.3		1	0.11		0.84	mg/Kg		12/26/2017	9056



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Report of Analysis

Client:		Date Collected:	12/22/2017 12:00:00 AM
Project:	LB92371	Date Received:	12/22/2017 12:00:00 AM
Client Sample ID:	SAMPLE-3	SDG No.:	LB92371
Lab Sample ID:	I7064-05	Matrix:	Solid
Level (low/med):	low	% Solid:	91.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.21		0.55	mg/Kg		12/26/2017	9056
	Chloride	0.84		1	0.035		0.16	mg/Kg		12/26/2017	9056
	Fluoride	0.09	J	1	0.019		0.11	mg/Kg		12/26/2017	9056
	Nitrate	0.14		1	0.012		0.12	mg/Kg		12/26/2017	9056
	Nitrite	0	U	1	0.011		0.17	mg/Kg		12/26/2017	9056
	Phosphorus, Ortho	0	U	1	0.0022		0.27	mg/Kg		12/26/2017	9056
	Sulfate	9.5		1	0.11		0.82	mg/Kg		12/26/2017	9056



Report of Analysis

Client:		Date Collected:	12/22/2017 12:00:00 AM
Project:	LB92371	Date Received:	12/22/2017 12:00:00 AM
Client Sample ID:	SAMPLE-4	SDG No.:	LB92371
Lab Sample ID:	I7064-07	Matrix:	Solid
Level (low/med):	low	% Solid:	89.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.21		0.56	mg/Kg		12/26/2017	9056
	Chloride	1		1	0.036		0.17	mg/Kg		12/26/2017	9056
	Fluoride	0.099	J	1	0.019		0.11	mg/Kg		12/26/2017	9056
	Nitrate	0.16		1	0.012		0.13	mg/Kg		12/26/2017	9056
	Nitrite	0	U	1	0.011		0.17	mg/Kg		12/26/2017	9056
	Phosphorus, Ortho	0	U	1	0.0022		0.27	mg/Kg		12/26/2017	9056
	Sulfate	6.9		1	0.11		0.84	mg/Kg		12/26/2017	9056



Report of Analysis

Client:		Date Collected:	12/22/2017 12:00:00 AM
Project:	LB92371	Date Received:	12/22/2017 12:00:00 AM
Client Sample ID:	SAMPLE-5	SDG No.:	LB92371
Lab Sample ID:	I7064-09	Matrix:	Solid
Level (low/med):	low	% Solid:	91.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.21		0.54	mg/Kg		12/26/2017	9056
	Chloride	4.7		1	0.035		0.16	mg/Kg		12/26/2017	9056
	Fluoride	0.088	J	1	0.018		0.11	mg/Kg		12/26/2017	9056
	Nitrate	0.33		1	0.012		0.12	mg/Kg		12/26/2017	9056
	Nitrite	0	U	1	0.011		0.17	mg/Kg		12/26/2017	9056
	Phosphorus, Ortho	0	U	1	0.0022		0.26	mg/Kg		12/26/2017	9056
	Sulfate	13.3		1	0.1		0.82	mg/Kg		12/26/2017	9056



Report of Analysis

Client:		Date Collected:	12/22/2017 12:00:00 AM
Project:	LB92371	Date Received:	12/22/2017 12:00:00 AM
Client Sample ID:	SAMPLE-6	SDG No.:	LB92371
Lab Sample ID:	I7064-11	Matrix:	Solid
Level (low/med):	low	% Solid:	88.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.22		0.57	mg/Kg		12/26/2017	9056
	Chloride	1.8		1	0.036		0.17	mg/Kg		12/26/2017	9056
	Fluoride	0.088	J	1	0.019		0.11	mg/Kg		12/26/2017	9056
	Nitrate	0.2		1	0.012		0.13	mg/Kg		12/26/2017	9056
	Nitrite	0	U	1	0.011		0.17	mg/Kg		12/26/2017	9056
	Phosphorus, Ortho	0	U	1	0.0023		0.27	mg/Kg		12/26/2017	9056
	Sulfate	13.2		1	0.11		0.85	mg/Kg		12/26/2017	9056



Report of Analysis

Client:		Date Collected:	12/22/2017 12:00:00 AM
Project:	LB92371	Date Received:	12/22/2017 12:00:00 AM
Client Sample ID:	SAMPLE-7	SDG No.:	LB92371
Lab Sample ID:	I7064-13	Matrix:	Solid
Level (low/med):	low	% Solid:	82

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.23		0.61	mg/Kg		12/26/2017	9056
	Chloride	4.1		1	0.039		0.18	mg/Kg		12/26/2017	9056
	Fluoride	0.085	J	1	0.021		0.12	mg/Kg		12/26/2017	9056
	Nitrate	0.3		1	0.013		0.14	mg/Kg		12/26/2017	9056
	Nitrite	0	U	1	0.012		0.19	mg/Kg		12/26/2017	9056
	Phosphorus, Ortho	0	U	1	0.0024		0.3	mg/Kg		12/26/2017	9056
	Sulfate	27.9		1	0.12		0.91	mg/Kg		12/26/2017	9056



Report of Analysis

Client:		Date Collected:	12/22/2017 12:00:00 AM
Project:	LB92371	Date Received:	12/22/2017 12:00:00 AM
Client Sample ID:	SAMPLE-8	SDG No.:	LB92371
Lab Sample ID:	I7064-15	Matrix:	Solid
Level (low/med):	low	% Solid:	88.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.21		0.56	mg/Kg		12/26/2017	9056
	Chloride	1.3		1	0.036		0.17	mg/Kg		12/26/2017	9056
	Fluoride	0.11		1	0.019		0.11	mg/Kg		12/26/2017	9056
	Nitrate	0.17		1	0.012		0.13	mg/Kg		12/26/2017	9056
	Nitrite	0	U	1	0.011		0.17	mg/Kg		12/26/2017	9056
	Phosphorus, Ortho	0	U	1	0.0023		0.27	mg/Kg		12/26/2017	9056
	Sulfate	14.3		1	0.11		0.85	mg/Kg		12/26/2017	9056



Report of Analysis

Client:		Date Collected:	12/22/2017 12:00:00 AM
Project:	LB92371	Date Received:	12/22/2017 12:00:00 AM
Client Sample ID:	SAMPLE-9	SDG No.:	LB92371
Lab Sample ID:	I7064-17	Matrix:	Solid
Level (low/med):	low	% Solid:	88.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.22		0.57	mg/Kg		12/26/2017	9056
	Chloride	1.8		1	0.036		0.17	mg/Kg		12/26/2017	9056
	Fluoride	0.14		1	0.019		0.11	mg/Kg		12/26/2017	9056
	Nitrate	0.22		1	0.012		0.13	mg/Kg		12/26/2017	9056
	Nitrite	0	U	1	0.011		0.17	mg/Kg		12/26/2017	9056
	Phosphorus, Ortho	0	U	1	0.0023		0.27	mg/Kg		12/26/2017	9056
	Sulfate	36.4		1	0.11		0.85	mg/Kg		12/26/2017	9056



Report of Analysis

Client:		Date Collected:	12/22/2017 12:00:00 AM
Project:	LB92371	Date Received:	12/22/2017 12:00:00 AM
Client Sample ID:	SAMPLE-10	SDG No.:	LB92371
Lab Sample ID:	I7064-19	Matrix:	Solid
Level (low/med):	low	% Solid:	89.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0	U	1	0.21		0.56	mg/Kg		12/26/2017	9056
	Chloride	0.8		1	0.036		0.17	mg/Kg		12/26/2017	9056
	Fluoride	0.085	J	1	0.019		0.11	mg/Kg		12/26/2017	9056
	Nitrate	0.14		1	0.012		0.13	mg/Kg		12/26/2017	9056
	Nitrite	0	U	1	0.011		0.17	mg/Kg		12/26/2017	9056
	Phosphorus, Ortho	0	U	1	0.0022		0.27	mg/Kg		12/26/2017	9056
	Sulfate	15.5		1	0.11		0.84	mg/Kg		12/26/2017	9056



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Report of Analysis

Client:		Date Collected:	12/22/2017 12:00:00 AM
Project:	LB92371	Date Received:	12/22/2017 12:00:00 AM
Client Sample ID:	SAMPLE-10	SDG No.:	LB92371
Lab Sample ID:	I7064-19	Matrix:	Solid
Level (low/med):	low	% Solid:	89.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
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Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N = Spiked sample recovery not within control limits



GENCHEM

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB92371

SDG No.: LB92371

Contract: _____ Lab Code: CHEM

Case No.: LB92371

SAS No.: LB92371

Initial Calibration Source: _____

Continuing Calibration Source: _____

Sample ID	Analyte	Result mg/L	True Value	% Recovery	% RSD	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1	Bromide	9.7	10	97	0	90 - 110		12/04/2017	14:19	LB92371
	Chloride	2.9	3	96.7	0	90 - 110		12/04/2017	14:19	LB92371
	Fluoride	2.1	2	105	0	90 - 110		12/04/2017	14:19	LB92371
	Phosphorus, Ortho	5.2	5	104	0	90 - 110		12/04/2017	14:19	LB92371
	Nitrite	2.9	3	96.7	0	90 - 110		12/04/2017	14:19	LB92371
	Nitrate	2.4	2.5	96	0	90 - 110		12/04/2017	14:19	LB92371
	Sulfate	14.3	15	95.3	0	90 - 110		12/04/2017	14:19	LB92371



GENCHEM

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB92371

SDG No.: LB92371

Contract: _____ Lab Code: CHEM

Case No.: LB92371 SAS No.: LB92371

Initial Calibration Source: _____

Continuing Calibration Source: _____

Sample ID	Analyte	Result mg/L	True Value	% Recovery	% RSD	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV5	Sulfate	15.3	15	102	0	90 - 110		12/27/2017	14:15	LB92371



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB92371

SDG No.: LB92371

Contract:

Lab Code: CHEM

Case No.: LB92371

SAS No.: LB92371

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB1	Bromide	0.066	+/-0.5	U		0.5		12/04/2017	14:51	LB92371
	Chloride	0.075	+/-0.15	U		0.15		12/04/2017	14:51	LB92371
	Fluoride	0.043	+/-0.1	U		0.1		12/04/2017	14:51	LB92371
	Phosphorus, Ortho	0.01	+/-0.24	U		0.24		12/04/2017	14:51	LB92371
	Nitrite	0.022	+/-0.15	U		0.15		12/04/2017	14:51	LB92371
	Nitrate	0.027	+/-0.11	U		0.11		12/04/2017	14:51	LB92371
	Sulfate	0.13	+/-0.75	U		0.75		12/04/2017	14:51	LB92371

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB1	Bromide	0.066	+/-0.5	U		0.5		12/26/2017	10:11	LB92371
	Chloride	0.075	+/-0.15	U		0.15		12/26/2017	10:11	LB92371
	Fluoride	0.043	+/-0.1	U		0.1		12/26/2017	10:11	LB92371
	Phosphorus, Ortho	0.01	+/-0.24	U		0.24		12/26/2017	10:11	LB92371
	Nitrite	0.022	+/-0.15	U		0.15		12/26/2017	10:11	LB92371
	Nitrate	0.027	+/-0.11	U		0.11		12/26/2017	10:11	LB92371
	Sulfate	0.13	+/-0.75	U		0.75		12/26/2017	10:11	LB92371
CCB2	Bromide	0.066	+/-0.5	U		0.5		12/26/2017	16:23	LB92371
	Chloride	0.075	+/-0.15	U		0.15		12/26/2017	16:23	LB92371
	Fluoride	0.043	+/-0.1	U		0.1		12/26/2017	16:23	LB92371
	Phosphorus, Ortho	0.01	+/-0.24	U		0.24		12/26/2017	16:23	LB92371
	Nitrite	0.022	+/-0.15	U		0.15		12/26/2017	16:23	LB92371
	Nitrate	0.027	+/-0.11	U		0.11		12/26/2017	16:23	LB92371
	Sulfate	0.13	+/-0.75	U		0.75		12/26/2017	16:23	LB92371
CCB3	Bromide	0.066	+/-0.5	U		0.5		12/26/2017	19:59	LB92371
	Chloride	0.075	+/-0.15	U		0.15		12/26/2017	19:59	LB92371
	Fluoride	0.043	+/-0.1	U		0.1		12/26/2017	19:59	LB92371
	Phosphorus, Ortho	0.01	+/-0.24	U		0.24		12/26/2017	19:59	LB92371
	Nitrite	0.022	+/-0.15	U		0.15		12/26/2017	19:59	LB92371
	Nitrate	0.027	+/-0.11	U		0.11		12/26/2017	19:59	LB92371
	Sulfate	0.13	+/-0.75	U		0.75		12/26/2017	19:59	LB92371
CCB4	Bromide	0.066	+/-0.5	U		0.5		12/27/2017	11:39	LB92371
	Chloride	0.075	+/-0.15	U		0.15		12/27/2017	11:39	LB92371
	Fluoride	0.043	+/-0.1	U		0.1		12/27/2017	11:39	LB92371
	Phosphorus, Ortho	0.01	+/-0.24	U		0.24		12/27/2017	11:39	LB92371
	Nitrite	0.022	+/-0.15	U		0.15		12/27/2017	11:39	LB92371
	Nitrate	0.027	+/-0.11	U		0.11		12/27/2017	11:39	LB92371
	Sulfate	0.13	+/-0.75	U		0.75		12/27/2017	11:39	LB92371
CCB5	Bromide	0.066	+/-0.5	U		0.5		12/27/2017	14:46	LB92371
	Chloride	0.075	+/-0.15	U		0.15		12/27/2017	14:46	LB92371
	Fluoride	0.043	+/-0.1	U		0.1		12/27/2017	14:46	LB92371
	Phosphorus, Ortho	0.01	+/-0.24	U		0.24		12/27/2017	14:46	LB92371
	Nitrite	0.022	+/-0.15	U		0.15		12/27/2017	14:46	LB92371
	Nitrate	0.027	+/-0.11	U		0.11		12/27/2017	14:46	LB92371
	Sulfate	0.13	+/-0.75	U		0.75		12/27/2017	14:46	LB92371



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB92371

SDG No.: LB92371

Contract: Lab Code: CHEM

Case No.: LB92371

SAS No.: LB92371

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
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GENCHEM
- 3b -
PREPARATION BLANK SUMMARY

Client: LB92371

SDG No.: LB92371

Instrument: IC-2

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
LB92371BLS		SOLID		Batch Number:				Prep Date:		
	Bromide	0.19	<0.5	U		0.5		12/26/2017	10:42	LB92371
	Chloride	0.032	<0.15	U		0.15		12/26/2017	10:42	LB92371
	Fluoride	0.017	<0.1	U		0.1		12/26/2017	10:42	LB92371
	Phosphorus, Ortho	0.002	<0.24	U		0.24		12/26/2017	10:42	LB92371
	Nitrite	0.01	<0.15	U		0.15		12/26/2017	10:42	LB92371
	Nitrate	0.011	<0.11	U		0.11		12/26/2017	10:42	LB92371
	Sulfate	0.096	<0.75	U		0.75		12/26/2017	10:42	LB92371
Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
LB92371BLS2		SOLID		Batch Number:				Prep Date:		
	Bromide	0.19	<0.5	U		0.5		12/27/2017	12:10	LB92371
	Chloride	0.032	<0.15	U		0.15		12/27/2017	12:10	LB92371
	Fluoride	0.017	<0.1	U		0.1		12/27/2017	12:10	LB92371
	Phosphorus, Ortho	0.002	<0.24	U		0.24		12/27/2017	12:10	LB92371
	Nitrite	0.01	<0.15	U		0.15		12/27/2017	12:10	LB92371
	Nitrate	0.011	<0.11	U		0.11		12/27/2017	12:10	LB92371
	Sulfate	0.096	<0.75	U		0.75		12/27/2017	12:10	LB92371



GENCHEM
- 5a -
MATRIX SPIKE SUMMARY

client: LB92371 **level:** low **sdg no.:** LB92371
contract: **lab code:** CHEM **case no.:** LB92371 **sas no.:** LB92371
matrix: Solid **sample id:** I7064-03 **client id:** SAMPLE-2MS
Percent Solids for Sample: 89.7 **Spiked ID:** I7064-03MS **Percent Solids for Spike Sample:** 89.7

Analyte	Units	Acceptance	Spiked	Sample		Spike	%	Qual	M
		Limit %R	Result	C	Result	C	Added	Recovery	
Bromide	mg/Kg	80 - 120	11.4		0.21	U	11.1	102.7	
Chloride	mg/Kg	80 - 120	4.4		0.77		3.3	110	
Fluoride	mg/Kg	80 - 120	2.4		0.098	J	2.2	105	
Phosphorus, Ortho	mg/Kg	80 - 120	6.7		0.0022	U	5.6	119.6	
Nitrite	mg/Kg	80 - 120	3.4		0.011	U	3.3	103	
Nitrate	mg/Kg	80 - 120	2.9		0.13		2.8	99	
Sulfate	mg/Kg	80 - 120	30		11.3		16.7	112	



GENCHEM
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client:	<u>LB92371</u>	level:	<u>low</u>	sdg no.:	<u>LB92371</u>			
contract:	<u> </u>	lab code:	<u>CHEM</u>	case no.:	<u>LB92371</u>	sas no.:	<u>LB92371</u>	
matrix:	<u>Solid</u>	sample id:	<u>I7064-03</u>	client id:	<u>SAMPLE-2MSD</u>			
Percent Solids for Sample:		<u>89.7</u>	Spiked ID:		<u>I7064-03MSD</u>	Percent Solids for Spike Sample:		<u>89.7</u>

Analyte	Units	Acceptance	MSD	Sample		Spike	%	Qual	M
		Limit %R	Result	C	Result	C	Added	Recovery	
Bromide	mg/Kg	80 - 120	11.4		0.21	U	11.1	102.7	
Chloride	mg/Kg	80 - 120	4.4		0.77		3.3	110	
Fluoride	mg/Kg	80 - 120	2.3		0.098	J	2.2	100	
Phosphorus, Ortho	mg/Kg	80 - 120	6.5		0.0022	U	5.6	116.1	
Nitrite	mg/Kg	80 - 120	3.4		0.011	U	3.3	103	
Nitrate	mg/Kg	80 - 120	2.9		0.13		2.8	99	
Sulfate	mg/Kg	80 - 120	30.1		11.3		16.7	113	

GENCHEM

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB92371 **Level:** LOW **SDG No.:** LB92371
Contract: _____ **Lab Code:** CHEM **Case No.:** LB92371 **SAS No.:** LB92371
Matrix: Solid **Sample ID:** I7064-03 **Client ID:** SAMPLE-2DUP
Percent Solids for Sample: 89.7 **Duplicate ID** I7064-03DUP **Percent Solids for Spike Sample:** 89.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Bromide	mg/Kg	20	0.21	U	0	U			
Chloride	mg/Kg	20	0.77		0.76		1		
Fluoride	mg/Kg	20	0.098	J	0.11		12		
Phosphorus, Ortho	mg/Kg	20	0.0022	U	0	U			
Nitrite	mg/Kg	20	0.011	U	0	U			
Nitrate	mg/Kg	20	0.13		0.12	J	8		
Sulfate	mg/Kg	20	11.3		12		6		

GENCHEM

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB92371 **Level:** LOW **SDG No.:** LB92371
Contract: **Lab Code:** CHEM **Case No.:** LB92371 **SAS No.:** LB92371
Matrix: Solid **Sample ID:** I7064-03MS **Client ID:** SAMPLE-2MSD
Percent Solids for Sample: 89.7 **Duplicate ID** I7064-03MSD **Percent Solids for Spike Sample:** 89.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Bromide	mg/Kg	20	11.4		11.4		0		
Chloride	mg/Kg	20	4.4		4.4		0		
Fluoride	mg/Kg	20	2.4		2.3		4		
Phosphorus, Ortho	mg/Kg	20	6.7		6.5		3		
Nitrite	mg/Kg	20	3.4		3.4		0		
Nitrate	mg/Kg	20	2.9		2.9		0		
Sulfate	mg/Kg	20	30		30.1		0		



GENCHEM

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB92371

SDG No.: LB92371

Contract:

Lab Code: CHEM

Case No.: LB92371

SAS No.: LB92371

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
LB92371BSS							
Bromide	mg/Kg	10	9.5		95	90 - 110	
Chloride	mg/Kg	3	2.9		96.7	90 - 110	
Fluoride	mg/Kg	2	2		100	90 - 110	
Phosphorus, Ortho	mg/Kg	5	4.8		96	90 - 110	
Nitrite	mg/Kg	3	2.9		96.7	90 - 110	
Nitrate	mg/Kg	2.5	2.4		96	90 - 110	
Sulfate	mg/Kg	15	14.2		94.7	90 - 110	



GENCHEM

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB92371

SDG No.: LB92371

Contract:

Lab Code: CHEM

Case No.: LB92371

SAS No.: LB92371

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
LB92371BSS2							
Bromide	mg/Kg	10	9.5		95	90 - 110	
Chloride	mg/Kg	3	2.9		96.7	90 - 110	
Fluoride	mg/Kg	2	2.1		105	90 - 110	
Phosphorus, Ortho	mg/Kg	5	5.2		104	90 - 110	
Nitrite	mg/Kg	3	2.9		96.7	90 - 110	
Nitrate	mg/Kg	2.5	2.4		96	90 - 110	
Sulfate	mg/Kg	15	14.2		94.7	90 - 110	
