



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Report of Analysis

Client:		Date Collected:	7/3/2017 12:00:00 AM
Project:	LB89167	Date Received:	7/3/2017 12:00:00 AM
Client Sample ID:	MDL-WATER-1	SDG No.:	LB89167
Lab Sample ID:	I4047-01	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0.6		1	0.066		0.5	mg/L		07/07/2017	300.0
	Chloride	0.16		1	0.075		0.15	mg/L		07/07/2017	300.0
	Fluoride	0.09	J	1	0.043		0.1	mg/L		07/07/2017	300.0
	Nitrate	0.16		1	0.027		0.13	mg/L		07/07/2017	300.0
	Nitrite	0.2		1	0.022		0.15	mg/L		07/07/2017	300.0
	Phosphorus, Ortho	0.059	J	1	0.01		0.25	mg/L		07/07/2017	300.0
	Sulfate	1.1		1	0.13		0.75	mg/L		07/07/2017	300.0



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Report of Analysis

Client:		Date Collected:	7/3/2017 12:00:00 AM
Project:	LB89167	Date Received:	7/3/2017 12:00:00 AM
Client Sample ID:	MDL-WATER-2	SDG No.:	LB89167
Lab Sample ID:	I4047-02	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0.61		1	0.066		0.5	mg/L		07/07/2017	300.0
	Chloride	0.16		1	0.075		0.15	mg/L		07/07/2017	300.0
	Fluoride	0.095	J	1	0.043		0.1	mg/L		07/07/2017	300.0
	Nitrate	0.16		1	0.027		0.13	mg/L		07/07/2017	300.0
	Nitrite	0.2		1	0.022		0.15	mg/L		07/07/2017	300.0
	Phosphorus, Ortho	0.1	J	1	0.01		0.25	mg/L		07/07/2017	300.0
	Sulfate	1.1		1	0.13		0.75	mg/L		07/07/2017	300.0



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Report of Analysis

Client:		Date Collected:	7/3/2017 12:00:00 AM
Project:	LB89167	Date Received:	7/3/2017 12:00:00 AM
Client Sample ID:	MDL-WATER-3	SDG No.:	LB89167
Lab Sample ID:	I4047-03	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0.61		1	0.066		0.5	mg/L		07/07/2017	300.0
	Chloride	0.16		1	0.075		0.15	mg/L		07/07/2017	300.0
	Fluoride	0.093	J	1	0.043		0.1	mg/L		07/07/2017	300.0
	Nitrate	0.16		1	0.027		0.13	mg/L		07/07/2017	300.0
	Nitrite	0.21		1	0.022		0.15	mg/L		07/07/2017	300.0
	Phosphorus, Ortho	0.094	J	1	0.01		0.25	mg/L		07/07/2017	300.0
	Sulfate	1.1		1	0.13		0.75	mg/L		07/07/2017	300.0



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Report of Analysis

Client:		Date Collected:	7/3/2017 12:00:00 AM
Project:	LB89167	Date Received:	7/3/2017 12:00:00 AM
Client Sample ID:	MDL-WATER-4	SDG No.:	LB89167
Lab Sample ID:	I4047-04	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0.61		1	0.066		0.5	mg/L		07/07/2017	300.0
	Chloride	0.16		1	0.075		0.15	mg/L		07/07/2017	300.0
	Fluoride	0.094	J	1	0.043		0.1	mg/L		07/07/2017	300.0
	Nitrate	0.16		1	0.027		0.13	mg/L		07/07/2017	300.0
	Nitrite	0.2		1	0.022		0.15	mg/L		07/07/2017	300.0
	Phosphorus, Ortho	0.099	J	1	0.01		0.25	mg/L		07/07/2017	300.0
	Sulfate	1.1		1	0.13		0.75	mg/L		07/07/2017	300.0



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Report of Analysis

Client:		Date Collected:	7/3/2017 12:00:00 AM
Project:	LB89167	Date Received:	7/3/2017 12:00:00 AM
Client Sample ID:	MDL-WATER-5	SDG No.:	LB89167
Lab Sample ID:	I4047-05	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0.61		1	0.066		0.5	mg/L		07/07/2017	300.0
	Chloride	0.16		1	0.075		0.15	mg/L		07/07/2017	300.0
	Fluoride	0.094	J	1	0.043		0.1	mg/L		07/07/2017	300.0
	Nitrate	0.16		1	0.027		0.13	mg/L		07/07/2017	300.0
	Nitrite	0.2		1	0.022		0.15	mg/L		07/07/2017	300.0
	Phosphorus, Ortho	0.095	J	1	0.01		0.25	mg/L		07/07/2017	300.0
	Sulfate	1.1		1	0.13		0.75	mg/L		07/07/2017	300.0



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Report of Analysis

Client:		Date Collected:	7/3/2017 12:00:00 AM
Project:	LB89167	Date Received:	7/3/2017 12:00:00 AM
Client Sample ID:	MDL-WATER-6	SDG No.:	LB89167
Lab Sample ID:	I4047-06	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0.61		1	0.066		0.5	mg/L		07/07/2017	300.0
	Chloride	0.16		1	0.075		0.15	mg/L		07/07/2017	300.0
	Fluoride	0.092	J	1	0.043		0.1	mg/L		07/07/2017	300.0
	Nitrate	0.16		1	0.027		0.13	mg/L		07/07/2017	300.0
	Nitrite	0.21		1	0.022		0.15	mg/L		07/07/2017	300.0
	Phosphorus, Ortho	0.093	J	1	0.01		0.25	mg/L		07/07/2017	300.0
	Sulfate	1.1		1	0.13		0.75	mg/L		07/07/2017	300.0

Report of Analysis

Client:		Date Collected:	7/3/2017 12:00:00 AM
Project:	LB89167	Date Received:	7/3/2017 12:00:00 AM
Client Sample ID:	MDL-WATER-7	SDG No.:	LB89167
Lab Sample ID:	I4047-07	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
	Bromide	0.61		1	0.066		0.5	mg/L		07/07/2017	300.0
	Bromide	0.61		1	0.066		0.5	mg/L		07/07/2017	300.0
	Bromide	0.61		1	0.066		0.5	mg/L		07/07/2017	300.0
	Bromide	0.61		1	0.066		0.5	mg/L		07/07/2017	300.0
	Chloride	0.16		1	0.075		0.15	mg/L		07/07/2017	300.0
	Chloride	0.16		1	0.075		0.15	mg/L		07/07/2017	300.0
	Chloride	0.16		1	0.075		0.15	mg/L		07/07/2017	300.0
	Chloride	0.16		1	0.075		0.15	mg/L		07/07/2017	300.0
	Fluoride	0.094	J	1	0.043		0.1	mg/L		07/07/2017	300.0
	Fluoride	0.095	J	1	0.043		0.1	mg/L		07/07/2017	300.0
	Fluoride	0.094	J	1	0.043		0.1	mg/L		07/07/2017	300.0
	Fluoride	0.095	J	1	0.043		0.1	mg/L		07/07/2017	300.0
	Nitrate	0.16		1	0.027		0.13	mg/L		07/07/2017	300.0
	Nitrate	0.16		1	0.027		0.13	mg/L		07/07/2017	300.0
	Nitrate	0.16		1	0.027		0.13	mg/L		07/07/2017	300.0
	Nitrate	0.16		1	0.027		0.13	mg/L		07/07/2017	300.0
	Nitrite	0.2		1	0.022		0.15	mg/L		07/07/2017	300.0
	Nitrite	0.2		1	0.022		0.15	mg/L		07/07/2017	300.0
	Nitrite	0.2		1	0.022		0.15	mg/L		07/07/2017	300.0
	Nitrite	0.2		1	0.022		0.15	mg/L		07/07/2017	300.0
	Phosphorus, Ortho	0.095	J	1	0.01		0.25	mg/L		07/07/2017	300.0
	Phosphorus, Ortho	0.096	J	1	0.01		0.25	mg/L		07/07/2017	300.0
	Phosphorus, Ortho	0.095	J	1	0.01		0.25	mg/L		07/07/2017	300.0
	Phosphorus, Ortho	0.096	J	1	0.01		0.25	mg/L		07/07/2017	300.0
	Sulfate	1.1		1	0.13		0.75	mg/L		07/07/2017	300.0
	Sulfate	1.1		1	0.13		0.75	mg/L		07/07/2017	300.0
	Sulfate	1.1		1	0.13		0.75	mg/L		07/07/2017	300.0
	Sulfate	1.1		1	0.13		0.75	mg/L		07/07/2017	300.0



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Report of Analysis

Client:		Date Collected:	7/3/2017 12:00:00 AM
Project:	LB89167	Date Received:	7/3/2017 12:00:00 AM
Client Sample ID:	MDL-WATER-7	SDG No.:	LB89167
Lab Sample ID:	I4047-07	Matrix:	WATER
Level (low/med):	low	% Solid:	0

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: LB89167

SDG No.: LB89167

Contract: _____ Lab Code: CHEM

Case No.: LB89167

SAS No.: LB89167

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
CCV1	Bromide	10	10	100	0	90 - 110		07/07/2017	16:48	LB89167
	Chloride	3.1	3	103.3	0	90 - 110		07/07/2017	16:48	LB89167
	Fluoride	2	2	100	0	90 - 110		07/07/2017	16:48	LB89167
	Phosphorus, Ortho	5	5	100	0	90 - 110		07/07/2017	16:48	LB89167
	Nitrite	3	3	100	0	90 - 110		07/07/2017	16:48	LB89167
	Nitrate	2.5	2.5	100	0	90 - 110		07/07/2017	16:48	LB89167
	Sulfate	14.5	15	96.7	0	90 - 110		07/07/2017	16:48	LB89167
CCV2	Bromide	9.8	10	98	0	90 - 110		07/07/2017	23:00	LB89167
	Chloride	2.9	3	96.7	0	90 - 110		07/07/2017	23:00	LB89167
	Fluoride	1.9	2	95	0	90 - 110		07/07/2017	23:00	LB89167
	Phosphorus, Ortho	4.8	5	96	0	90 - 110		07/07/2017	23:00	LB89167
	Nitrite	2.9	3	96.7	0	90 - 110		07/07/2017	23:00	LB89167
	Nitrate	2.4	2.5	96	0	90 - 110		07/07/2017	23:00	LB89167
	Sulfate	14.1	15	94	0	90 - 110		07/07/2017	23:00	LB89167



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB89167

SDG No.: LB89167

Contract: Lab Code: CHEM

Case No.: LB89167

SAS No.: LB89167

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		06/08/2017	17:26	LB89167
	Chloride	0.075	+/-0.15	U		0.15		06/08/2017	17:26	LB89167
	Fluoride	0.043	+/-0.1	U		0.1		06/08/2017	17:26	LB89167
	Phosphorus, Ortho	0.01	+/-0.25	U		0.25		06/08/2017	17:26	LB89167
	Nitrite	0.022	+/-0.15	U		0.15		06/08/2017	17:26	LB89167
	Nitrate	0.027	+/-0.13	U		0.13		06/08/2017	17:26	LB89167
	Sulfate	0.13	+/-0.75	U		0.75		06/08/2017	17:26	LB89167



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB89167

SDG No.: LB89167

Contract:

Lab Code: CHEM

Case No.: LB89167

SAS No.: LB89167

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		07/07/2017	17:19	LB89167
	Chloride	0.075	+/-0.15	U		0.15		07/07/2017	17:19	LB89167
	Fluoride	0.043	+/-0.1	U		0.1		07/07/2017	17:19	LB89167
	Phosphorus, Ortho	0.01	+/-0.25	U		0.25		07/07/2017	17:19	LB89167
	Nitrite	0.022	+/-0.15	U		0.15		07/07/2017	17:19	LB89167
	Nitrate	0.027	+/-0.13	U		0.13		07/07/2017	17:19	LB89167
	Sulfate	0.13	+/-0.75	U		0.75		07/07/2017	17:19	LB89167
CCB2	Bromide	0.066	+/-0.5	U		0.5		07/07/2017	23:31	LB89167
	Chloride	0.075	+/-0.15	U		0.15		07/07/2017	23:31	LB89167
	Fluoride	0.043	+/-0.1	U		0.1		07/07/2017	23:31	LB89167
	Phosphorus, Ortho	0.01	+/-0.25	U		0.25		07/07/2017	23:31	LB89167
	Nitrite	0.022	+/-0.15	U		0.15		07/07/2017	23:31	LB89167
	Nitrate	0.027	+/-0.13	U		0.13		07/07/2017	23:31	LB89167
	Sulfate	0.13	+/-0.75	U		0.75		07/07/2017	23:31	LB89167



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB89167

SDG No.: LB89167

Contract: Lab Code: CHEM

Case No.: LB89167

SAS No.: LB89167

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: LB89167

SDG No.: LB89167

Instrument: IC-2

Sample ID	Analyte	Result (mg/L)	Acceptance Limit	Conc Qual	LOD mg/L	CRQL mg/L	M	Analysis Date	Analysis Time	Run
LB89167BLW		WATER		Batch Number:				Prep Date:		
	Bromide	0.066	<0.5	U		0.5		07/07/2017	17:50	LB89167
	Chloride	0.075	<0.15	U		0.15		07/07/2017	17:50	LB89167
	Fluoride	0.043	<0.1	U		0.1		07/07/2017	17:50	LB89167
	Phosphorus, Ortho	0.01	<0.25	U		0.25		07/07/2017	17:50	LB89167
	Nitrite	0.022	<0.15	U		0.15		07/07/2017	17:50	LB89167
	Nitrate	0.027	<0.13	U		0.13		07/07/2017	17:50	LB89167
	Sulfate	0.13	<0.75	U		0.75		07/07/2017	17:50	LB89167



GENCHEM

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LABORATORY CONTROL SAMPLE SUMMARY

Client: LB89167

SDG No.: LB89167

Contract: _____

Lab Code: CHEM

Case No.: LB89167

SAS No.: LB89167

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
LB89167BSW							
Bromide	mg/L	10	10		100	90 - 110	
Chloride	mg/L	3	3		100	90 - 110	
Fluoride	mg/L	2	2		100	90 - 110	
Phosphorus, Ortho	mg/L	5	5		100	90 - 110	
Nitrite	mg/L	3	3		100	90 - 110	
Nitrate	mg/L	2.5	2.5		100	90 - 110	
Sulfate	mg/L	15	14.5		96.7	90 - 110	

Daily Analysis Runlog For Sequence/QC Batch ID # LB89167

Review By

Review On

SubDirectory

LB89167

Test :

Anions

STD. NAME	STD REF.#
ICAL Standard	WP55462,WP55463,WP55464,WP55465,WP55466,WP55467,WP55468
ICV Standard	WP55469
CCV Standard	WP55464
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	WP55469
Chk Standard	WP55554,WP55555,WP56215

Sr#	SampleID	ClientID	QcType	Date	Comment	Status
1	STD1	STD1	CAL1	06/08/17 10:57		OK
2	STD2	STD2	CAL2	06/08/17 11:28		OK
3	STD3	STD3	CAL3	06/08/17 11:59		OK
4	STD4	STD4	CAL4	06/08/17 12:30		OK
5	STD5	STD5	CAL5	06/08/17 13:01		OK
6	STD6	STD6	CAL6	06/08/17 13:32		OK
7	STD7	STD7	CAL7	06/08/17 14:03		OK
8	ICV1	ICV1	ICV	06/08/17 15:47		OK
9	ICB1	ICB1	ICB	06/08/17 17:26		OK
10	CCV1	CCV1	CCV	07/07/17 16:48		OK
11	CCB1	CCB1	CCB	07/07/17 17:19		OK
12	LB89167BLW	LB89167BLW	MB	07/07/17 17:50		OK
13	LB89167BSW	LB89167BSW	LCS	07/07/17 18:21		OK
14	I4047-01	MDL-WATER-1	SAM	07/07/17 18:52		OK
15	I4047-02	MDL-WATER-2	SAM	07/07/17 19:23		OK
16	I4047-03	MDL-WATER-3	SAM	07/07/17 19:54		OK
17	I4047-04	MDL-WATER-4	SAM	07/07/17 20:25		OK
18	I4047-05	MDL-WATER-5	SAM	07/07/17 20:56		OK
19	I4047-06	MDL-WATER-6	SAM	07/07/17 21:27		OK
20	I4047-07	MDL-WATER-7	SAM	07/07/17 21:58		OK
21	I4047-07	MDL-WATER-7	SAM	07/07/17 22:29		OK



Instrument ID : IC-2

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

Daily Analysis Runlog For Sequence/QC Batch ID # LB89167

Review By		Review On				
SubDirectory		Test : Anions				
LB89167						
STD. NAME		STD REF.#				
ICAL Standard		WP55462,WP55463,WP55464,WP55465,WP55466,WP55467,WP55468				
ICV Standard		WP55469				
CCV Standard		WP55464				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP55469				
Chk Standard		WP55554,WP55555,WP56215				
22	CCV2	CCV2	CCV	07/07/17 23:00		OK
23	CCB2	CCB2	CCB	07/07/17 23:31		OK