CHEMTECH

Instrument ID : IC-1

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

Daily Analysis Runlog For Sequence/QCBatch ID # LB93594

Review By

Review On

SubDirectory LB93594

Test : Anions

STD. NAME	STD REF.#
ICAL Standard	WP62070,WP62071,WP62072,WP62073,WP62074,WP62075,WP62076
ICV Standard	WP62077
CCV Standard	wp62305
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	wp62316
Chk Standard	WP61543,WP61544

Sr#	SampleId	ClientID	QcType	Date	Comment	Status
1	STD1	STD1	CAL1	02/19/18 11:21		OK
2	STD2	STD2	CAL2	02/19/18 11:52		OK
3	STD3	STD3	CAL3	02/19/18 12:23		OK
4	STD4	STD4	CAL4	02/19/18 12:54		OK
5	STD5	STD5	CAL5	02/19/18 13:25		OK
6	STD6	STD6	CAL6	02/19/18 13:56		OK
7	STD7	STD7	CAL7	02/19/18 14:27		OK
8	ICV1	ICV1	ICV	02/20/18 10:46		OK
9	ICB1	ICB1	ICB	02/20/18 11:28		OK
10	CCV1	CCV1	CCV	02/28/18 13:56		OK
11	CCB1	CCB1	CCB	02/28/18 14:31		OK
12	LB93594BLW	LB93594BLW	MB	02/28/18 15:05		OK
13	LB93594BSW	LB93594BSW	LCS	02/28/18 15:36		OK
14	J1734-01	PB-2-OW	SAM	02/28/18 17:12		OK
15	J1734-01DUP	PB-2-OWDUP	DUP	02/28/18 17:43		OK
16	J1734-01MS	PB-2-OWMS	MS	02/28/18 18:14		OK
17	CCV2	CCV2	CCV	02/28/18 18:45		OK
18	CCB2	CCB2	CCB	02/28/18 19:16		OK

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Report of Analysis

Client:		Date Collected:	2/28/2018 12:00:00 AM
Project:	LB93594	Date Received:	2/28/2018 12:00:00 AM
Client Sample ID:	PB-2-OW	SDG No.:	LB93594
Lab Sample ID:	J1734-01	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	0.96		1	0.066		0.5	mg/L		02/28/2018	300.0
	Chloride	1870	OR	1	0.075		0.15	mg/L		02/28/2018	300.0
	Fluoride	0	U	1	0.043		0.1	mg/L		02/28/2018	300.0
	Nitrate	3.6		1	0.027		0.13	mg/L		02/28/2018	300.0
	Nitrite	0.18		1	0.022		0.15	mg/L		02/28/2018	300.0
	Phosphorus, Ortho	0	U	1	0.01		0.25	mg/L		02/28/2018	300.0
	Sulfate	119	OR	1	0.13		0.75	mg/L		02/28/2018	300.0

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Report of Analysis

Client:		Date Collected:	2/28/2018 12:00:00 AM
Project:	LB93594	Date Received:	2/28/2018 12:00:00 AM
Client Sample ID:	PB-2-OW	SDG No.:	LB93594
Lab Sample ID:	J1734-01	Matrix:	WATER
Level (low/med):	low	% Solid:	0

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

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

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB93594 **SDG No.:** LB93594

Contract: **Lab Code:** CHEM **Case No.:** LB93594 **SAS No.:** LB93594

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result mg/L	True Value	% Recovery	Qual	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV1	Bromide	9.8	10	98		90 - 110		02/20/2018	10:46	LB93594
	Chloride	2.9	3	96.7		90 - 110		02/20/2018	10:46	LB93594
	Fluoride	2.1	2	105		90 - 110		02/20/2018	10:46	LB93594
	Phosphorus, Ortho	5	5	100		90 - 110		02/20/2018	10:46	LB93594
	Nitrite	3	3	100		90 - 110		02/20/2018	10:46	LB93594
	Nitrate	2.4	2.5	96		90 - 110		02/20/2018	10:46	LB93594
	Sulfate	15.4	15	102.7		90 - 110		02/20/2018	10:46	LB93594

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB93594 **SDG No.:** LB93594

Contract: **Lab Code:** CHEM **Case No.:** LB93594 **SAS No.:** LB93594

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result mg/L	True Value	% Recovery	Qual	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV1	Bromide	9.6	10	96		90 - 110		02/28/2018	13:56	LB93594
	Chloride	2.9	3	96.7		90 - 110		02/28/2018	13:56	LB93594
	Fluoride	0.51	2	25.5	*	90 - 110		02/28/2018	13:56	LB93594
	Phosphorus, Ortho	5.1	5	102		90 - 110		02/28/2018	13:56	LB93594
	Nitrite	2.9	3	96.7		90 - 110		02/28/2018	13:56	LB93594
	Nitrate	2.4	2.5	96		90 - 110		02/28/2018	13:56	LB93594
	Sulfate	14.1	15	94		90 - 110		02/28/2018	13:56	LB93594
CCV2	Bromide	9.6	10	96		90 - 110		02/28/2018	18:45	LB93594
	Chloride	2.9	3	96.7		90 - 110		02/28/2018	18:45	LB93594
	Fluoride	2	2	100		90 - 110		02/28/2018	18:45	LB93594
	Phosphorus, Ortho	5.5	5	110		90 - 110		02/28/2018	18:45	LB93594
	Nitrite	2.9	3	96.7		90 - 110		02/28/2018	18:45	LB93594
	Nitrate	2.4	2.5	96		90 - 110		02/28/2018	18:45	LB93594
	Sulfate	13.9	15	92.7		90 - 110		02/28/2018	18:45	LB93594

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB93594 **SDG No.:** LB93594

Contract: **Lab Code:** CHEM **Case No.:** LB93594 **SAS No.:** LB93594

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		02/20/2018	11:28	LB93594
	Chloride	0.075	+/-0.15	U		0.15		02/20/2018	11:28	LB93594
	Fluoride	0.043	+/-0.1	U		0.1		02/20/2018	11:28	LB93594
	Phosphorus, Ortho	0.01	+/-0.25	U		0.25		02/20/2018	11:28	LB93594
	Nitrite	0.022	+/-0.15	U		0.15		02/20/2018	11:28	LB93594
	Nitrate	0.027	+/-0.13	U		0.13		02/20/2018	11:28	LB93594
	Sulfate	0.13	+/-0.75	U		0.75		02/20/2018	11:28	LB93594

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB93594 **SDG No.:** LB93594

Contract: **Lab Code:** CHEM **Case No.:** LB93594 **SAS No.:** LB93594

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		02/28/2018	14:31	LB93594
	Chloride	0.075	+/-0.15	U		0.15		02/28/2018	14:31	LB93594
	Fluoride	0.043	+/-0.1	U		0.1		02/28/2018	14:31	LB93594
	Phosphorus, Ortho	0.01	+/-0.25	U		0.25		02/28/2018	14:31	LB93594
	Nitrite	0.022	+/-0.15	U		0.15		02/28/2018	14:31	LB93594
	Nitrate	0.027	+/-0.13	U		0.13		02/28/2018	14:31	LB93594
	Sulfate	0.13	+/-0.75	U		0.75		02/28/2018	14:31	LB93594
CCB2	Bromide	0.066	+/-0.5	U		0.5		02/28/2018	19:16	LB93594
	Chloride	0.075	+/-0.15	U		0.15		02/28/2018	19:16	LB93594
	Fluoride	0.043	+/-0.1	U		0.1		02/28/2018	19:16	LB93594
	Phosphorus, Ortho	0.01	+/-0.25	U		0.25		02/28/2018	19:16	LB93594
	Nitrite	0.022	+/-0.15	U		0.15		02/28/2018	19:16	LB93594
	Nitrate	0.027	+/-0.13	U		0.13		02/28/2018	19:16	LB93594
	Sulfate	0.13	+/-0.75	U		0.75		02/28/2018	19:16	LB93594

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB93594 **SDG No.:** LB93594

Contract: **Lab Code:** CHEM **Case No.:** LB93594 **SAS No.:** LB93594

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number

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PREPARATION BLANK SUMMARY

Client: LB93594 **SDG No.:** LB93594

Instrument: IC-1

Sample ID	Analyte	Result (mg/L)	Acceptance Limit	Conc Qual	LOD mg/L	CRQL mg/L	M	Analysis Date	Analysis Time	Run
LB93594BLW		**WATER**		**Batch Number:**				**Prep Date:**		
	Bromide	0.066	<0.5	U		0.5		02/28/2018	15:05	LB93594
	Chloride	0.075	<0.15	U		0.15		02/28/2018	15:05	LB93594
	Fluoride	0.043	<0.1	U		0.1		02/28/2018	15:05	LB93594
	Phosphorus, Ortho	0.01	<0.25	U		0.25		02/28/2018	15:05	LB93594
	Nitrite	0.022	<0.15	U		0.15		02/28/2018	15:05	LB93594
	Nitrate	0.027	<0.13	U		0.13		02/28/2018	15:05	LB93594
	Sulfate	0.13	<0.75	U		0.75		02/28/2018	15:05	LB93594

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MATRIX SPIKE SUMMARY

client: LB93594 **level:** low **sdg no.:** LB93594

contract: **lab code:** CHEM **case no.:** LB93594 **sas no.:** LB93594

matrix: WATER **sample id:** J1734-01 **client id:** PB-2-OWMS

Percent Solids for Sample: 0 **Spiked ID:** J1734-01MS **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Bromide	mg/L	80 - 120	10.9		0.96		10	99		
Chloride	mg/L	80 - 120	1700	OR	1870	OR	3	-5667	*	
Fluoride	mg/L	80 - 120	2.5		0.043	U	2	125	*	
Phosphorus, Ortho	mg/L	80 - 120	7.2		0.01	U	5	144	*	
Nitrite	mg/L	80 - 120	2.2		0.18		3	67	*	
Nitrate	mg/L	80 - 120	6.2		3.6		2.5	104		
Sulfate	mg/L	80 - 120	124	OR	119	OR	15	33	*	

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DUPLICATE SAMPLE SUMMARY

Client: LB93594 **Level:** LOW **SDG No.:** LB93594

Contract: **Lab Code:** CHEM **Case No.:** LB93594 **SAS No.:** LB93594

Matrix: WATER **Sample ID:** J1734-01 **Client ID:** PB-2-OWDUP

Percent Solids for Sample: 0 **Duplicate ID** J1734-01DUP **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Bromide	mg/L	20	0.96		0.96		0		
Chloride	mg/L	20	1870	OR	1850	OR	1		
Fluoride	mg/L	20	0.043	U	0	U			
Phosphorus, Ortho	mg/L	20	0.01	U	0	U			
Nitrite	mg/L	20	0.18		0.18		0		
Nitrate	mg/L	20	3.6		3.6		0		
Sulfate	mg/L	20	119	OR	118	OR	1		

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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LABORATORY CONTROL SAMPLE SUMMARY

Client: LB93594 **SDG No.:** LB93594

Contract: **Lab Code:** CHEM **Case No.:** LB93594 **SAS No.:** LB93594

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
LB93594BSW							
Bromide	mg/L	10	9.9		99	90 - 110	
Chloride	mg/L	3	3		100	90 - 110	
Fluoride	mg/L	2	1.9		95	90 - 110	
Phosphorus, Ortho	mg/L	5	5.4		108	90 - 110	
Nitrite	mg/L	3	3		100	90 - 110	
Nitrate	mg/L	2.5	2.5		100	90 - 110	
Sulfate	mg/L	15	15.6		104	90 - 110	