CHEMTECH

Instrument ID : CN

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

Daily Analysis Runlog For Sequence/QCBatch ID # LB88934

Review By

Review On

SubDirectory LB88934

Test : Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP56554,WP56553,WP56552,WP56551,WP56550,WP56549
ICV Standard	WP56555
CCV Standard	WP56556
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP56611,WP55355,WP53945

Sr#	SampleId	ClientID	QcType	Date	Comment	Status
1	S0.0	S0.0	CAL1	07/24/17 08:43		OK
2	S5.0	S5.0	CAL2	07/24/17 08:43		OK
3	S10.0	S10.0	CAL3	07/24/17 08:43		OK
4	S100.0	S100.0	CAL4	07/24/17 08:43		OK
5	S250.0	S250.0	CAL5	07/24/17 08:43		OK
6	S500.0	S500.0	CAL6	07/24/17 08:43		OK
7	ICV	ICV	ICV	07/24/17 09:18		OK
8	ICB	ICB	ICB	07/24/17 09:18		OK
9	CCV001	CCV001	CCV	07/24/17 09:18		OK
10	CCB001	CCB001	CCB	07/24/17 09:18		OK
11	PB100809BL	PBW003	MB	07/24/17 09:18		OK
12	I4259-01	MC0AC7	SAM	07/24/17 09:18		OK
13	I4259-02	MC0AC8	SAM	07/24/17 09:18		OK
14	I4259-03	MC0AC9	SAM	07/24/17 09:18		OK
15	I4259-04	MC0AC9D	DUP	07/24/17 09:18		OK
16	I4259-06	MC0AD1	SAM	07/24/17 09:18		OK
17	I4259-07	MC0AD2	SAM	07/24/17 09:23		OK
18	I4259-08	MC0AD3	SAM	07/24/17 09:23		OK
19	I4259-05	MC0AC9S	MS	07/24/17 09:36		OK
20	CCV002	CCV002	CCV	07/24/17 09:36		OK
21	CCB002	CCB002	CCB	07/24/17 09:38		OK

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Report of Analysis

Client:		Date Collected:	7/16/2017 12:00:00 AM
Project:	LB88934	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	MC0AC7	SDG No.:	LB88934
Lab Sample ID:	I4259-01	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	1.5	J	1	1.5	5	10	ug/L	07/20/2017	07/24/2017	ISM02.4_CN

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Report of Analysis

Client:		Date Collected:	7/16/2017 12:00:00 AM
Project:	LB88934	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	MC0AC8	SDG No.:	LB88934
Lab Sample ID:	I4259-02	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.23	U	1	1.5	5	10	ug/L	07/20/2017	07/24/2017	ISM02.4_CN

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Report of Analysis

Client:		Date Collected:	7/16/2017 12:00:00 AM
Project:	LB88934	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	MC0AC9	SDG No.:	LB88934
Lab Sample ID:	I4259-03	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0	U	1	1.5	5	10	ug/L	07/20/2017	07/24/2017	ISM02.4_CN

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Report of Analysis

Client:		Date Collected:	7/16/2017 12:00:00 AM
Project:	LB88934	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	MC0AD1	SDG No.:	LB88934
Lab Sample ID:	I4259-06	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.2	U	1	1.5	5	10	ug/L	07/20/2017	07/24/2017	ISM02.4_CN

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Report of Analysis

Client:		Date Collected:	7/16/2017 12:00:00 AM
Project:	LB88934	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	MC0AD2	SDG No.:	LB88934
Lab Sample ID:	I4259-07	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0	U	1	1.5	5	10	ug/L	07/20/2017	07/24/2017	ISM02.4_CN

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Report of Analysis

Client:		Date Collected:	7/16/2017 12:00:00 AM
Project:	LB88934	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	MC0AD3	SDG No.:	LB88934
Lab Sample ID:	I4259-08	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	2.0	J	1	1.5	5	10	ug/L	07/20/2017	07/24/2017	ISM02.4_CN

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Report of Analysis

Client:		Date Collected:	7/16/2017 12:00:00 AM
Project:	LB88934	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	MC0AD3	SDG No.:	LB88934
Lab Sample ID:	I4259-08	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

CHEMTECH

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB88934 **SDG No.:** LB88934

Contract: **Lab Code:** CHEM **Case No.:** LB88934 **SAS No.:** LB88934

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value	% Recovery	% RSD	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV	Cyanide	92.1	99	93	0	85 - 115	CN	07/24/2017	09:18	LB88934

CHEMTECH

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB88934 **SDG No.:** LB88934

Contract: **Lab Code:** CHEM **Case No.:** LB88934 **SAS No.:** LB88934

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value	% Recovery	% RSD	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV001	Cyanide	238	250	95	0	85 - 115	CN	07/24/2017	09:18	LB88934
CCV002	Cyanide	256	250	102	0	85 - 115	CN	07/24/2017	09:36	LB88934

CHEMTECH

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB88934 **SDG No.:** LB88934

Contract: **Lab Code:** CHEM **Case No.:** LB88934 **SAS No.:** LB88934

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB	Cyanide	1.9	+/-10.0	J	5.0	10.0	CN	07/24/2017	09:18	LB88934

CHEMTECH

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB88934 **SDG No.:** LB88934

Contract: **Lab Code:** CHEM **Case No.:** LB88934 **SAS No.:** LB88934

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB001	Cyanide	2.2	+/-10.0	J	5.0	10.0	CN	07/24/2017	09:18	LB88934
CCB002	Cyanide	1.8	+/-10.0	J	5.0	10.0	CN	07/24/2017	09:38	LB88934

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB88934 **SDG No.:** LB88934

Contract: **Lab Code:** CHEM **Case No.:** LB88934 **SAS No.:** LB88934

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

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Metals
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PREPARATION BLANK SUMMARY

Client: LB88934 **SDG No.:** LB88934

Instrument: CN

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB100809BL		**WATER**		**Batch Number:**		**PB100809**		**Prep Date:**	**07/20/2017**	
	Cyanide	2	<10	J	5.0	10	CN	07/24/2017	09:18	LB88934

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metals
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MATRIX SPIKE SUMMARY

client: LB88934 **level:** low **sdg no.:** LB88934

contract: **lab code:** CHEM **case no.:** LB88934 **sas no.:** LB88934

matrix: WATER **sample id:** I4259-03 **client id:** MC0AC9S

Percent Solids for Sample: 0 **Spiked ID:** I4259-05 **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	ug/L	75 - 125	79.5		10.0	U	100	80		CN

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: LB88934 **Level:** LOW **SDG No.:** LB88934

Contract: **Lab Code:** CHEM **Case No.:** LB88934 **SAS No.:** LB88934

Matrix: WATER **Sample ID:** I4259-03 **Client ID:** MC0AC9D

Percent Solids for Sample: 0 **Duplicate ID** I4259-04 **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	ug/L	20	10.0	U	0.12	U			CN

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

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Metals
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SAMPLE PREPARATION SUMMARY

Client: LB88934 **SDG No.:** LB88934

Contract: **Lab Code:** CHEM **Method:**

Case No.: LB88934 **SAS No.:** LB88934

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB100809**						
PB100809BL	PBW003	MB	WATER	07/24/2017	50.0	50.0	
I4259-01	MC0AC7	SAM	WATER	07/24/2017	50.0	50.0	
I4259-02	MC0AC8	SAM	WATER	07/24/2017	50.0	50.0	
I4259-03	MC0AC9	SAM	WATER	07/24/2017	50.0	50.0	
I4259-04	MC0AC9D	DUP	WATER	07/24/2017	50.0	50.0	
I4259-06	MC0AD1	SAM	WATER	07/24/2017	50.0	50.0	
I4259-07	MC0AD2	SAM	WATER	07/24/2017	50.0	50.0	
I4259-08	MC0AD3	SAM	WATER	07/24/2017	50.0	50.0	
I4259-05	MC0AC9S	MS	WATER	07/24/2017	50.0	50.0	

FORM 15-IN

INITIAL CALIBRATION

Lab Name: LB88934 Contract:

Lab Code: CHEM Case No.: LB88934 MA No.: SDG No.: LB88934

Instrument ID: CN Start Date: 07/24/2017

Analytical Method: Run Batch: LB88934.mdb

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Cyanide	0	1.8	0	5	4.8	-4	10	9.6	-4

FORM 15-IN

INITIAL CALIBRATION

Lab Name: LB88934 Contract:

Lab Code: CHEM Case No.: LB88934 MA No.: SDG No.: LB88934

Instrument ID: CN Start Date: 07/24/2017

Analytical Method: Run Batch: LB88934.mdb

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Cyanide	100	98.4	-2	250	250	0	500	500	0