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 # LB92982

Review By

Review On

SubDirectory LB92982

Test : Cyanide

STD. NAME	STD REF.#
ICAL Standard	WP61350,WP61351,WP61352,WP61353,WP61354,WP61355
ICV Standard	WP61356
CCV Standard	WP61357
ICSA Standard	N/A
CRI Standard	N/A
LCS Standard	N/A
Chk Standard	WP61433,WP59958,WP58653

Sr#	SampleId	ClientID	QcType	Date	Comment	Status
1	S0.0	S0.0	CAL1	01/30/18 07:47		OK
2	S5.0	S5.0	CAL2	01/30/18 07:47		OK
3	S10.0	S10.0	CAL3	01/30/18 07:47		OK
4	S100.0	S100.0	CAL4	01/30/18 07:47		OK
5	S250.0	S250.0	CAL5	01/30/18 07:47		OK
6	S500.0	S500.0	CAL6	01/30/18 07:47		OK
7	ICV	ICV	ICV	01/30/18 08:13		OK
8	ICB	ICB	ICB	01/30/18 08:13		OK
9	CCV001	CCV001	CCV	01/30/18 08:13		OK
10	CCB001	CCB001	CCB	01/30/18 08:13		OK
11	PB106065BL	PBW005	MB	01/30/18 08:13		OK
12	PB106066BL	PBS006	MB	01/30/18 08:13		OK
13	J1323-10	MX2C00	SAM	01/30/18 08:42		OK
14	J1323-11	MX2C00D	DUP	01/30/18 08:42		OK
15	J1323-12	MX2C00S	MS	01/30/18 08:42		OK
16	J1323-19	MX2C03	SAM	01/30/18 08:42		OK
17	J1323-20	MX2C03D	DUP	01/30/18 08:42		OK
18	J1323-21	MX2C03S	MS	01/30/18 08:42		OK
19	CCV002	CCV002	CCV	01/30/18 08:43		OK
20	CCB002	CCB002	CCB	01/30/18 08:43		OK

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Report of Analysis

Client:		Date Collected:	1/24/2018 12:00:00 AM
Project:	LB92982	Date Received:	1/25/2018 12:00:00 AM
Client Sample ID:	MX2C00	SDG No.:	LB92982
Lab Sample ID:	J1323-10	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	219		1	2.1	5	10	ug/L	01/26/2018	01/30/2018	ISM02.4_CN

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Report of Analysis

Client:		Date Collected:	1/24/2018 12:00:00 AM
Project:	LB92982	Date Received:	1/25/2018 12:00:00 AM
Client Sample ID:	MX2C03	SDG No.:	LB92982
Lab Sample ID:	J1323-19	Matrix:	Solid
Level (low/med):	low	% Solid:	100

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	1.6		1	0.11	0.012	0.5	mg/kg	01/26/2018	01/30/2018	ISM02.4_CN

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Report of Analysis

Client:		Date Collected:	1/24/2018 12:00:00 AM
Project:	LB92982	Date Received:	1/25/2018 12:00:00 AM
Client Sample ID:	MX2C03	SDG No.:	LB92982
Lab Sample ID:	J1323-19	Matrix:	Solid
Level (low/med):	low	% Solid:	100

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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Hit Summary Sheet
SW-846

SDG No.: LB92982 **Order ID:** LB92982

Client: LB92982 **Project ID:** LB92982

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : MX2C00									
J1323-10	MX2C00	WATER	Cyanide	219.000		2.1	5	10	ug/L
Client ID : MX2C03									
J1323-19	MX2C03	Solid	Cyanide	1.600		0.11	0.25	0.5	mg/kg

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SAMPLE PREPARATION SUMMARY

Client: LB92982 **SDG No.:** LB92982

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

Case No.: LB92982 **SAS No.:** LB92982

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB106065**						
PB106065BL	PBW005	MB	SOLID	01/30/2018	1.00	50.0	100.00
J1323-19	MX2C03	SAM	SOLID	01/30/2018	1.01	50.0	100.00
J1323-20	MX2C03D	DUP	SOLID	01/30/2018	1.02	50.0	100.00
J1323-21	MX2C03S	MS	SOLID	01/30/2018	1.03	50.0	100.00

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SAMPLE PREPARATION SUMMARY

Client: LB92982 **SDG No.:** LB92982

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

Case No.: LB92982 **SAS No.:** LB92982

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB106066**						
PB106066BL	PBS006	MB	WATER	01/30/2018	50.0	50.0	
J1323-10	MX2C00	SAM	WATER	01/30/2018	50.0	50.0	
J1323-11	MX2C00D	DUP	WATER	01/30/2018	50.0	50.0	
J1323-12	MX2C00S	MS	WATER	01/30/2018	50.0	50.0	

FORM 15-IN

INITIAL CALIBRATION

Lab Name: LB92982 Contract:

Lab Code: CHEM Case No.: LB92982 MA No.: SDG No.: LB92982

Instrument ID: CN Start Date: 01/30/2018

Analytical Method: Run Batch: LB92982.mdb

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Cyanide	0	0.54	0	5	4.9	-2	10	10.1	1

FORM 15-IN

INITIAL CALIBRATION

Lab Name: LB92982 Contract:

Lab Code: CHEM Case No.: LB92982 MA No.: SDG No.: LB92982

Instrument ID: CN Start Date: 01/30/2018

Analytical Method: Run Batch: LB92982.mdb

Concentration Units: ug/L

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Cyanide	100	99.7	0	250	249	0	500	500	0

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB92982 **SDG No.:** LB92982

Contract: **Lab Code:** CHEM **Case No.:** LB92982 **SAS No.:** LB92982

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	97.3	99	98	0	85 - 115	CN	01/30/2018	08:13	LB92982

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB92982 **SDG No.:** LB92982

Contract: **Lab Code:** CHEM **Case No.:** LB92982 **SAS No.:** LB92982

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	01/30/2018	08:13	LB92982
CCV002	Cyanide	244	250	98	0	85 - 115	CN	01/30/2018	08:43	LB92982

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB92982 **SDG No.:** LB92982

Contract: **Lab Code:** CHEM **Case No.:** LB92982 **SAS No.:** LB92982

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB	Cyanide	0.32	+/-10.0	U	5.0	10.0	CN	01/30/2018	08:13	LB92982

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB92982 **SDG No.:** LB92982

Contract: **Lab Code:** CHEM **Case No.:** LB92982 **SAS No.:** LB92982

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB001	Cyanide	0.022	+/-10.0	U	5.0	10.0	CN	01/30/2018	08:13	LB92982
CCB002	Cyanide	1.1	+/-10.0	U	5.0	10.0	CN	01/30/2018	08:43	LB92982

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB92982 **SDG No.:** LB92982

Contract: **Lab Code:** CHEM **Case No.:** LB92982 **SAS No.:** LB92982

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: LB92982 **SDG No.:** LB92982

Instrument: CN

Sample ID	Analyte	Result (mg/kg)	Acceptance Limit	Conc Qual	LOD mg/kg	CRQL mg/kg	M	Analysis Date	Analysis Time	Run
PB106065BL		**SOLID**		**Batch Number:**		**PB106065**		**Prep Date:**	**01/26/2018**	
	Cyanide	0.008	<0.5	U	0.013	0.5	CN	01/30/2018	08:13	LB92982

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB106066BL		**WATER**		**Batch Number:**		**PB106066**		**Prep Date:**	**01/26/2018**	
	Cyanide	0.017	<10	U	5.0	10	CN	01/30/2018	08:13	LB92982

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metals
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MATRIX SPIKE SUMMARY

client: LB92982 **level:** low **sdg no.:** LB92982

contract: **lab code:** CHEM **case no.:** LB92982 **sas no.:** LB92982

matrix: WATER **sample id:** J1323-10 **client id:** MX2C00S

Percent Solids for Sample: 0 **Spiked ID:** J1323-12 **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	303		219		100	84		CN

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metals
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MATRIX SPIKE SUMMARY

client: LB92982 **level:** low **sdg no.:** LB92982

contract: **lab code:** CHEM **case no.:** LB92982 **sas no.:** LB92982

matrix: Solid **sample id:** J1323-19 **client id:** MX2C03S

Percent Solids for Sample: 100 **Spiked ID:** J1323-21 **Percent Solids for Spike Sample:** 100

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/kg	75 - 125	6.4		1.6		4.9	100		CN

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: LB92982 **Level:** LOW **SDG No.:** LB92982

Contract: **Lab Code:** CHEM **Case No.:** LB92982 **SAS No.:** LB92982

Matrix: WATER **Sample ID:** J1323-10 **Client ID:** MX2C00D

Percent Solids for Sample: 0 **Duplicate ID** J1323-11 **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	ug/L	20	219		227		4		CN

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

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DUPLICATE SAMPLE SUMMARY

Client: LB92982 **Level:** LOW **SDG No.:** LB92982

Contract: **Lab Code:** CHEM **Case No.:** LB92982 **SAS No.:** LB92982

Matrix: Solid **Sample ID:** J1323-19 **Client ID:** MX2C03D

Percent Solids for Sample: 100 **Duplicate ID** J1323-20 **Percent Solids for Spike Sample:** 100

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/kg	20	1.6		1.5		6		CN

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