



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

Report of Analysis

Client:		Date Collected:	
Project:	LB87449	Date Received:	
Client Sample ID:	HIGHPB98948	SDG No.:	LB87449
Lab Sample ID:	HIGHPB98948	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	0.49		1	0.003		0.005	mg/L		05/15/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/12/2017 12:00:00 AM
Project:	LB87449	Date Received:	5/12/2017 12:00:00 AM
Client Sample ID:	FK-PS-01_002	SDG No.:	LB87449
Lab Sample ID:	I3141-01	Matrix:	Solid
Level (low/med):	low	% Solid:	85.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.058	U	1	0.037		0.28	mg/Kg	05/15/2017	05/15/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/12/2017 12:00:00 AM
Project:	LB87449	Date Received:	5/12/2017 12:00:00 AM
Client Sample ID:	FK-PS-01-002	SDG No.:	LB87449
Lab Sample ID:	I3144-01	Matrix:	Solid
Level (low/med):	low	% Solid:	78.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.052	U	1	0.041		0.31	mg/Kg	05/15/2017	05/15/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/12/2017 12:00:00 AM
Project:	LB87449	Date Received:	5/12/2017 12:00:00 AM
Client Sample ID:	TP-1COMP	SDG No.:	LB87449
Lab Sample ID:	I3147-02	Matrix:	Solid
Level (low/med):	low	% Solid:	92

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.014	U	1	0.034		0.26	mg/Kg	05/15/2017	05/15/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/12/2017 12:00:00 AM
Project:	LB87449	Date Received:	5/12/2017 12:00:00 AM
Client Sample ID:	TP-2COMP	SDG No.:	LB87449
Lab Sample ID:	I3147-04	Matrix:	Solid
Level (low/med):	low	% Solid:	91.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.03	U	1	0.034		0.26	mg/Kg	05/15/2017	05/15/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/12/2017 12:00:00 AM
Project:	LB87449	Date Received:	5/12/2017 12:00:00 AM
Client Sample ID:	TP-3COMP	SDG No.:	LB87449
Lab Sample ID:	I3147-06	Matrix:	Solid
Level (low/med):	low	% Solid:	92.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.036	U	1	0.034		0.26	mg/Kg	05/15/2017	05/15/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/12/2017 12:00:00 AM
Project:	LB87449	Date Received:	5/12/2017 12:00:00 AM
Client Sample ID:	NM10-COMP-0-6	SDG No.:	LB87449
Lab Sample ID:	I3151-01	Matrix:	Solid
Level (low/med):	low	% Solid:	83.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.019	U	1	0.038		0.29	mg/Kg	05/15/2017	05/15/2017	9012B



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Report of Analysis

Client:		Date Collected:	5/12/2017 12:00:00 AM
Project:	LB87449	Date Received:	5/12/2017 12:00:00 AM
Client Sample ID:	NM10-COMP-6-18	SDG No.:	LB87449
Lab Sample ID:	I3151-02	Matrix:	Solid
Level (low/med):	low	% Solid:	88

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.014	U	1	0.036		0.28	mg/Kg	05/15/2017	05/15/2017	9012B



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Report of Analysis

Client:		Date Collected:	
Project:	LB87449	Date Received:	
Client Sample ID:	LOWPB98948	SDG No.:	LB87449
Lab Sample ID:	LOWPB98948	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	0.0099		1	0.003		0.005	mg/L		05/15/2017	9012B



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Report of Analysis

Client:		Date Collected:	
Project:	LB87449	Date Received:	
Client Sample ID:	LOWPB98948	SDG No.:	LB87449
Lab Sample ID:	LOWPB98948	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: LB87449

SDG No.: LB87449

Contract: _____

Lab Code: CHEM

Case No.: LB87449

SAS No.: LB87449

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	Cyanide	0.094	0.099	94.9	0	85 - 115		05/15/2017	12:35	LB87449



GENCHEM

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB87449

SDG No.: LB87449

Contract: _____ Lab Code: CHEM

Case No.: LB87449

SAS No.: LB87449

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	Cyanide	0.24	0.25	96	0	90 - 110		05/15/2017	12:35	LB87449
CCV2	Cyanide	0.24	0.25	96	0	90 - 110		05/15/2017	12:42	LB87449
CCV3	Cyanide	0.26	0.25	104	0	90 - 110		05/15/2017	12:55	LB87449



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB87449

SDG No.: LB87449

Contract:

Lab Code: CHEM

Case No.: LB87449

SAS No.: LB87449

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB1	Cyanide	-0.00015	+/-0.005	U		0.005		05/15/2017	12:35	LB87449

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB1	Cyanide	0.00015	+/-0.005	U		0.005		05/15/2017	12:35	LB87449
CCB2	Cyanide	-0.00029	+/-0.005	U		0.005		05/15/2017	12:42	LB87449
CCB3	Cyanide	0.00068	+/-0.005	U		0.005		05/15/2017	12:55	LB87449



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB87449

SDG No.: LB87449

Contract: Lab Code: CHEM

Case No.: LB87449

SAS No.: LB87449

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

Client: LB87449

SDG No.: LB87449

Instrument: Konelab 20

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB98948BL		SOLID		Batch Number:		PB98948		Prep Date:	05/15/2017	
	Cyanide	-0.0033	<0.24	U		0.24		05/15/2017	12:35	LB87449



GENCHEM
- 5a -
MATRIX SPIKE SUMMARY

client: LB87449 level: low sdg no.: LB87449
contract: lab code: CHEM case no.: LB87449 sas no.: LB87449
matrix: Solid sample id: I3141-01 client id: FK-PS-01_002MS
Percent Solids for Sample: 85.8 Spiked ID: I3141-01MS Percent Solids for Spike Sample: 85.8

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	2.3		0.037	U	2.2	104.5		



GENCHEM
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: LB87449 level: low sdg no.: LB87449
contract: lab code: CHEM case no.: LB87449 sas no.: LB87449
matrix: Solid sample id: I3141-01 client id: FK-PS-01_002MSD
Percent Solids for Sample: 85.8 Spiked ID: I3141-01MSD Percent Solids for Spike Sample: 85.8

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	2.2		0.037	U	2.3	95.7		

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DUPLICATE SAMPLE SUMMARY

Client: LB87449 **Level:** LOW **SDG No.:** LB87449
Contract: **Lab Code:** CHEM **Case No.:** LB87449 **SAS No.:** LB87449
Matrix: Solid **Sample ID:** I3141-01 **Client ID:** FK-PS-01_002DUP
Percent Solids for Sample: 85.8 **Duplicate ID** I3141-01DUP **Percent Solids for Spike Sample:** 85.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	0.037	U	-0.02	U			

GENCHEM

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DUPLICATE SAMPLE SUMMARY

Client: LB87449 **Level:** LOW **SDG No.:** LB87449
Contract: **Lab Code:** CHEM **Case No.:** LB87449 **SAS No.:** LB87449
Matrix: Solid **Sample ID:** I3141-01MS **Client ID:** FK-PS-01_002MSD
Percent Solids for Sample: 85.8 **Duplicate ID** I3141-01MSD **Percent Solids for Spike Sample:** 85.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	2.3		2.2		4		



GENCHEM

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LABORATORY CONTROL SAMPLE SUMMARY

Client: LB87449

SDG No.: LB87449

Contract:

Lab Code: CHEM

Case No.: LB87449

SAS No.: LB87449

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB98948BS Cyanide	mg/Kg	4.9	4.8		98	85 - 115	

Daily Analysis Runlog For Sequence/QC Batch ID # LB87449

Review By		Review On				
SubDirectory		LB87449		Test : Cyanide		
STD. NAME		STD REF.#				
ICAL Standard		WP54925,WP54926,WP54927,WP54928,WP54929,WP54930,WP54931,WP54932				
ICV Standard		W1540				
CCV Standard		WP54934				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP54521				
Chk Standard		WP54933,WP51626,WP51276				
Sr#	SampleID	ClientID	QcType	Date	Comment	Status
1	0.0PPBCN	0.0PPBCN	CAL1	05/15/17 09:46		OK
2	5.0PPBCN	5.0PPBCN	CAL2	05/15/17 09:46		OK
3	10PPBCN	10PPBCN	CAL3	05/15/17 09:46		OK
4	50PPBCN	50PPBCN	CAL4	05/15/17 09:46		OK
5	100PPBCN	100PPBCN	CAL5	05/15/17 09:46		OK
6	250PPBCN	250PPBCN	CAL6	05/15/17 09:46		OK
7	500PPBCN	500PPBCN	CAL7	05/15/17 09:46		OK
8	ICV1	ICV1	ICV	05/15/17 12:35		OK
9	ICB1	ICB1	ICB	05/15/17 12:35		OK
10	CCV1	CCV1	CCV	05/15/17 12:35		OK
11	CCB1	CCB1	CCB	05/15/17 12:35		OK
12	PB98948BL	PB98948BL	MB	05/15/17 12:35		OK
13	PB98948BS	PB98948BS	LCS	05/15/17 12:35		OK
14	LOWPB98948	LOWPB98948	SAM	05/15/17 12:35		OK
15	HIGHPB98948	HIGHPB98948	SAM	05/15/17 12:35		OK
16	I3144-01	FK-PS-01-002	SAM	05/15/17 12:42		OK
17	I3147-02	TP-1COMP	SAM	05/15/17 12:42		OK
18	CCV2	CCV2	CCV	05/15/17 12:42		OK
19	CCB2	CCB2	CCB	05/15/17 12:42		OK
20	I3147-04	TP-2COMP	SAM	05/15/17 12:42		OK
21	I3147-06	TP-3COMP	SAM	05/15/17 12:42		OK

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Daily Analysis Runlog For Sequence/QCBatch ID # LB87449

Review By		Review On				
SubDirectory		LB87449		Test : Cyanide		
STD. NAME		STD REF.#				
ICAL Standard		WP54925,WP54926,WP54927,WP54928,WP54929,WP54930,WP54931,WP54932				
ICV Standard		W1540				
CCV Standard		WP54934				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP54521				
Chk Standard		WP54933,WP51626,WP51276				
22	I3151-01	NM10-COMP-0-6	SAM	05/15/17 12:42		OK
23	I3151-02	NM10-COMP-6-18	SAM	05/15/17 12:42		OK
24	I3141-01	FK-PS-01_002	SAM	05/15/17 12:50		OK
25	I3141-01DUP	FK-PS-01_002DUP	DUP	05/15/17 12:55		OK
26	I3141-01MS	FK-PS-01_002MS	MS	05/15/17 12:55		OK
27	I3141-01MSD	FK-PS-01_002MSD	MSD	05/15/17 12:55		OK
28	CCV3	CCV3	CCV	05/15/17 12:55		OK
29	CCB3	CCB3	CCB	05/15/17 12:55		OK