

Daily Analysis Runlog For Sequence/QC Batch ID # LB88811

Review By		Review On				
SubDirectory		LB88811		Test : Cyanide		
STD. NAME		STD REF.#				
ICAL Standard		WP56503,WP56504,WP56505,WP56506,WP56507,WP56508,WP56509				
ICV Standard		W1541				
CCV Standard		WP56510				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP54521				
Chk Standard		WP56512,WP55836,WP55355				
Sr#	SampleID	ClientID	QcType	Date	Comment	Status
1	0.0PPBCN	0.0PPBCN	CAL1	07/19/17 09:47		OK
2	5.0PPBCN	5.0PPBCN	CAL2	07/19/17 09:47		OK
3	10PPBCN	10PPBCN	CAL3	07/19/17 09:47		OK
4	50PPBCN	50PPBCN	CAL4	07/19/17 09:47		OK
5	100PPBCN	100PPBCN	CAL5	07/19/17 09:47		OK
6	250PPBCN	250PPBCN	CAL6	07/19/17 09:47		OK
7	500PPBCN	500PPBCN	CAL7	07/19/17 09:47		OK
8	ICV1	ICV1	ICV	07/19/17 15:47		OK
9	ICB1	ICB1	ICB	07/19/17 15:47		OK
10	CCV1	CCV1	CCV	07/19/17 15:47		OK
11	CCB1	CCB1	CCB	07/19/17 15:47		OK
12	PB100769BL	PB100769BL	MB	07/19/17 15:47		OK
13	PB100769BS	PB100769BS	LCS	07/19/17 15:47		OK
14	LOWPB100769	LOWPB100769	SAM	07/19/17 15:47		OK
15	HIGHPB100769	HIGHPB100769	SAM	07/19/17 15:47		OK
16	I4250-01	ROLL-OFF-4611-CO	SAM	07/19/17 15:47		OK
17	I4250-01DUP	ROLL-OFF-4611-CO	DUP	07/19/17 15:47		OK
18	I4250-01MS	ROLL-OFF-4611-CO	MS	07/19/17 15:47		OK
19	I4250-01MSD	ROLL-OFF-4611-CO	MSD	07/19/17 15:54		OK
20	I4254-01	72-12019/72-11985/7	SAM	07/19/17 15:54		OK
21	I4258-01	OK-02-071817-A	SAM	07/19/17 15:54		OK

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STD. NAME		STD REF.#				
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ICV Standard		W1541				
CCV Standard		WP56510				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP54521				
Chk Standard		WP56512,WP55836,WP55355				
22	CCV2	CCV2	CCV	07/19/17 15:54		OK
23	CCB2	CCB2	CCB	07/19/17 15:54		OK
24	I4258-04	OK-02-071817-B	SAM	07/19/17 15:54		OK
25	I4258-07	OK-02-071817-C	SAM	07/19/17 15:54		OK
26	I4265-01	SU-03-071817	SAM	07/19/17 15:54		OK
27	I4272-01	HDD-P1LWC2	SAM	07/19/17 15:54		OK
28	I4276-01	TP-2-COMP-(0-8)	SAM	07/19/17 15:54		OK
29	I4276-05	TP-6-COMP-(0-8)	SAM	07/19/17 15:54		OK
30	I4280-01	CL-01-071817-A	SAM	07/19/17 16:02		OK
31	I4280-04	CL-01-071817-B	SAM	07/19/17 16:02		OK
32	I4280-07	CL-01-071817-C	SAM	07/19/17 16:02		OK
33	I4280-10	CL-01-071817-D	SAM	07/19/17 16:02		OK
34	CCV3	CCV3	CCV	07/19/17 16:02		OK
35	CCB3	CCB3	CCB	07/19/17 16:02		OK
36	I4282-01	FK-GF-02-007-A	SAM	07/19/17 16:02		OK
37	I4282-03	FK-GF-02-007-B	SAM	07/19/17 16:02		OK
38	CCV4	CCV4	CCV	07/19/17 16:02		OK
39	CCB4	CCB4	CCB	07/19/17 16:02		OK



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Report of Analysis

Client:		Date Collected:	
Project:	LB88811	Date Received:	
Client Sample ID:	HIGHPB100769	SDG No.:	LB88811
Lab Sample ID:	HIGHPB100769	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		07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	7/17/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/17/2017 12:00:00 AM
Client Sample ID:	ROLL-OFF-4611-COMP	SDG No.:	LB88811
Lab Sample ID:	I4250-01	Matrix:	Solid
Level (low/med):	low	% Solid:	96.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.12	J	1	0.033		0.25	mg/Kg	07/19/2017	07/19/2017	9012B

Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	72-12019/72-11985/72-12016-COMP	SDG No.:	LB88811
Lab Sample ID:	I4254-01	Matrix:	Solid
Level (low/med):	low	% Solid:	86.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.12	J	1	0.037		0.28	mg/Kg	07/19/2017	07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	OK-02-071817-A	SDG No.:	LB88811
Lab Sample ID:	I4258-01	Matrix:	Solid
Level (low/med):	low	% Solid:	85.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.13	J	1	0.037		0.28	mg/Kg	07/19/2017	07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	OK-02-071817-B	SDG No.:	LB88811
Lab Sample ID:	I4258-04	Matrix:	Solid
Level (low/med):	low	% Solid:	90.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.1	J	1	0.035		0.26	mg/Kg	07/19/2017	07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	OK-02-071817-C	SDG No.:	LB88811
Lab Sample ID:	I4258-07	Matrix:	Solid
Level (low/med):	low	% Solid:	82.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.065	J	1	0.039		0.29	mg/Kg	07/19/2017	07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	SU-03-071817	SDG No.:	LB88811
Lab Sample ID:	I4265-01	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	0.071	J	1	0.035		0.26	mg/Kg	07/19/2017	07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	HDD-P1LWC2	SDG No.:	LB88811
Lab Sample ID:	I4272-01	Matrix:	Solid
Level (low/med):	low	% Solid:	81

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.064	J	1	0.039		0.3	mg/Kg	07/19/2017	07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	TP-2-COMP-(0-8)	SDG No.:	LB88811
Lab Sample ID:	I4276-01	Matrix:	Solid
Level (low/med):	low	% Solid:	87.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	1.7		1	0.036		0.28	mg/Kg	07/19/2017	07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	TP-6-COMP-(0-8)	SDG No.:	LB88811
Lab Sample ID:	I4276-05	Matrix:	Solid
Level (low/med):	low	% Solid:	75.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.34		1	0.042		0.32	mg/Kg	07/19/2017	07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	CL-01-071817-A	SDG No.:	LB88811
Lab Sample ID:	I4280-01	Matrix:	Solid
Level (low/med):	low	% Solid:	90.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.075	J	1	0.035		0.27	mg/Kg	07/19/2017	07/19/2017	9012B

Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	CL-01-071817-B	SDG No.:	LB88811
Lab Sample ID:	I4280-04	Matrix:	Solid
Level (low/med):	low	% Solid:	90.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.11	J	1	0.036		0.27	mg/Kg	07/19/2017	07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	CL-01-071817-C	SDG No.:	LB88811
Lab Sample ID:	I4280-07	Matrix:	Solid
Level (low/med):	low	% Solid:	94.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.061	J	1	0.034		0.26	mg/Kg	07/19/2017	07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/18/2017 12:00:00 AM
Client Sample ID:	CL-01-071817-D	SDG No.:	LB88811
Lab Sample ID:	I4280-10	Matrix:	Solid
Level (low/med):	low	% Solid:	94.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.16	J	1	0.034		0.26	mg/Kg	07/19/2017	07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/19/2017 12:00:00 AM
Client Sample ID:	FK-GF-02-007-A	SDG No.:	LB88811
Lab Sample ID:	I4282-01	Matrix:	Solid
Level (low/med):	low	% Solid:	91.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.098	J	1	0.035		0.27	mg/Kg	07/19/2017	07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	7/18/2017 12:00:00 AM
Project:	LB88811	Date Received:	7/19/2017 12:00:00 AM
Client Sample ID:	FK-GF-02-007-B	SDG No.:	LB88811
Lab Sample ID:	I4282-03	Matrix:	Solid
Level (low/med):	low	% Solid:	91.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.086	J	1	0.035		0.27	mg/Kg	07/19/2017	07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	
Project:	LB88811	Date Received:	
Client Sample ID:	LOWPB100769	SDG No.:	LB88811
Lab Sample ID:	LOWPB100769	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	0.011		1	0.003		0.005	mg/L		07/19/2017	9012B



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Report of Analysis

Client:		Date Collected:	
Project:	LB88811	Date Received:	
Client Sample ID:	LOWPB100769	SDG No.:	LB88811
Lab Sample ID:	LOWPB100769	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: LB88811

SDG No.: LB88811

Contract: **Lab Code:** CHEM

Case No.: LB88811

SAS No.: LB88811

Initial Calibration Source:

Continuing Calibration Source: _____

Sample ID	Analyte	Result	True Value	% Recovery	% RSD	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		mg/L								
CCV1	Cyanide	0.25	0.25	100	0	90 - 110		07/19/2017	15:47	LB88811
CCV2	Cyanide	0.25	0.25	100	0	90 - 110		07/19/2017	15:54	LB88811
CCV3	Cyanide	0.24	0.25	96	0	90 - 110		07/19/2017	16:02	LB88811
CCV4	Cyanide	0.25	0.25	100	0	90 - 110		07/19/2017	16:02	LB88811



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB88811

SDG No.: LB88811

Contract:

Lab Code: CHEM

Case No.: LB88811

SAS No.: LB88811

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB1	Cyanide	0.0015	+/-0.005	U		0.005		07/19/2017	15:47	LB88811



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB88811

SDG No.: LB88811

Contract:

Lab Code: CHEM

Case No.: LB88811

SAS No.: LB88811

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB1	Cyanide	0.0017	+/-0.005	U		0.005		07/19/2017	15:47	LB88811
CCB2	Cyanide	0.0018	+/-0.005	U		0.005		07/19/2017	15:54	LB88811
CCB3	Cyanide	0.0018	+/-0.005	U		0.005		07/19/2017	16:02	LB88811
CCB4	Cyanide	0.0016	+/-0.005	U		0.005		07/19/2017	16:02	LB88811



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB88811

SDG No.: LB88811

Contract: Lab Code: CHEM

Case No.: LB88811

SAS No.: LB88811

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: LB88811

SDG No.: LB88811

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
PB100769BL		SOLID		Batch Number:		PB100769		Prep Date:	07/19/2017	
	Cyanide	0.078	<0.25	J		0.25		07/19/2017	15:47	LB88811



GENCHEM
- 5a -
MATRIX SPIKE SUMMARY

client: LB88811 level: low sdg no.: LB88811
contract: lab code: CHEM case no.: LB88811 sas no.: LB88811
matrix: Solid sample id: I4250-01 client id: ROLL-OFF-4611-COMPMS
Percent Solids for Sample: 96.8 Spiked ID: I4250-01MS Percent Solids for Spike Sample: 96.8

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	1.9		0.12	J	2	89		

GENCHEM
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: LB88811 level: low sdg no.: LB88811
contract: lab code: CHEM case no.: LB88811 sas no.: LB88811
matrix: Solid sample id: I4250-01 client id: ROLL-OFF-4611-COMPMSD
Percent Solids for Sample: 96.8 Spiked ID: I4250-01MSD Percent Solids for Spike Sample: 96.8

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	1.8		0.12	J	2	84		

GENCHEM

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DUPLICATE SAMPLE SUMMARY

Client: LB88811 **Level:** LOW **SDG No.:** LB88811
Contract: **Lab Code:** CHEM **Case No.:** LB88811 **SAS No.:** LB88811
Matrix: Solid **Sample ID:** I4250-01 **Client ID:** ROLL-OFF-4611-COMPDUP
Percent Solids for Sample: 96.8 **Duplicate ID** I4250-01DUP **Percent Solids for Spike Sample:** 96.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	0.12	J	0.089	J	30	*	

GENCHEM

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DUPLICATE SAMPLE SUMMARY

Client: LB88811 **Level:** LOW **SDG No.:** LB88811
Contract: **Lab Code:** CHEM **Case No.:** LB88811 **SAS No.:** LB88811
Matrix: Solid **Sample ID:** I4250-01MS **Client ID:** ROLL-OFF-4611-COMPMSD
Percent Solids for Sample: 96.8 **Duplicate ID** I4250-01MSD **Percent Solids for Spike Sample:** 96.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	1.9		1.8		5		



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LABORATORY CONTROL SAMPLE SUMMARY

Client: LB88811

SDG No.: LB88811

Contract:

Lab Code: CHEM

Case No.: LB88811

SAS No.: LB88811

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB100769BS Cyanide	mg/Kg	4.9	4.7		95.9	85 - 115	