

Daily Analysis Runlog For Sequence/QC Batch ID # LB94870

Review By		Review On				
SubDirectory		LB94870		Test : Cyanide		
STD. NAME		STD REF.#				
ICAL Standard		WP63949,WP63951,WP63953,WP63954,WP63955,WP63957,WP63959				
ICV Standard		W1542				
CCV Standard		WP63960				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP62802				
Chk Standard		WP63963,WP59958,WP60878				

Sr#	SampleID	ClientID	QcType	Date	Comment	Status
1	0.0PPBCN	0.0PPBCN	CAL1	04/25/18 08:33		OK
2	5.0PPBCN	5.0PPBCN	CAL2	04/25/18 08:33		OK
3	10PPBCN	10PPBCN	CAL3	04/25/18 08:33		OK
4	50PPBCN	50PPBCN	CAL4	04/25/18 08:33		OK
5	100PPBCN	100PPBCN	CAL5	04/25/18 08:33		OK
6	250PPBCN	250PPBCN	CAL6	04/25/18 08:33		OK
7	500PPBCN	500PPBCN	CAL7	04/25/18 08:33		OK
8	ICV1	ICV1	ICV	04/25/18 10:04		OK
9	ICB1	ICB1	ICB	04/25/18 10:04		OK
10	CCV1	CCV1	CCV	04/25/18 10:04		OK
11	CCB1	CCB1	CCB	04/25/18 10:04		OK
12	PB108566BL	PB108566BL	MB	04/25/18 10:04		OK
13	PB108566BS	PB108566BS	LCS	04/25/18 10:04		OK
14	LOWPB108566	LOWPB108566	SAM	04/25/18 10:04		OK
15	HIGHPB108566	HIGHPB108566	SAM	04/25/18 10:04		OK
16	J2512-01	TP-1-1-3	SAM	04/25/18 10:04		OK
17	J2512-01DUP	TP-1-1-3DUP	DUP	04/25/18 10:04		OK
18	J2512-01MS	TP-1-1-3MS	MS	04/25/18 10:04		OK
19	J2512-01MSD	TP-1-1-3MSD	MSD	04/25/18 10:12		OK
20	J2512-02	TP-2-12	SAM	04/25/18 10:12		OK
21	CCV2	CCV2	CCV	04/25/18 10:12		OK

Daily Analysis Runlog For Sequence/QC Batch ID # LB94870

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SubDirectory		LB94870		Test : Cyanide		
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ICV Standard		W1542				
CCV Standard		WP63960				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		WP62802				
Chk Standard		WP63963,WP59958,WP60878				
22	CCB2	CCB2	CCB	04/25/18 10:12		OK
23	J2512-03	TP-3-2	SAM	04/25/18 10:12		OK
24	J2512-04	TP-5-7-9	SAM	04/25/18 10:12		OK
25	J2522-01	CO-W-1	SAM	04/25/18 10:12		OK
26	J2522-02	CO-S-1	SAM	04/25/18 10:12		OK
27	J2522-03	CO-W-2	SAM	04/25/18 10:12		OK
28	J2522-04	CO-S-2	SAM	04/25/18 10:12		OK
29	J2522-05	CO-W-3	SAM	04/25/18 10:12		OK
30	J2522-06	CO-S-3	SAM	04/25/18 10:19		OK
31	PB108567BL	PB108567BL	MB	04/25/18 10:19		OK
32	PB108567BS	PB108567BS	LCS	04/25/18 10:19		OK
33	CCV3	CCV3	CCV	04/25/18 10:19		OK
34	CCB3	CCB3	CCB	04/25/18 10:19		OK
35	J2510-02	FADW4710L	SAM	04/25/18 10:19		OK
36	J2510-02DUP	FADW4710LDUP	DUP	04/25/18 10:19		OK
37	J2510-02MS	FADW4710LMS	MS	04/25/18 10:19		OK
38	J2510-02MSD	FADW4710LMSD	MSD	04/25/18 10:19		OK
39	CCV4	CCV4	CCV	04/25/18 10:19		OK
40	CCB4	CCB4	CCB	04/25/18 10:19		OK



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Report of Analysis

Client:		Date Collected:	
Project:	LB94870	Date Received:	
Client Sample ID:	HIGHPB108566	SDG No.:	LB94870
Lab Sample ID:	HIGHPB108566	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		04/25/2018	9012B



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Report of Analysis

Client:		Date Collected:	4/23/2018 12:00:00 AM
Project:	LB94870	Date Received:	4/23/2018 12:00:00 AM
Client Sample ID:	FADW4710L	SDG No.:	LB94870
Lab Sample ID:	J2510-02	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	0.0036	J	1	0.003		0.005	mg/L	04/24/2018	04/25/2018	9012B



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Report of Analysis

Client:		Date Collected:	4/20/2018 12:00:00 AM
Project:	LB94870	Date Received:	4/20/2018 12:00:00 AM
Client Sample ID:	TP-1-1-3	SDG No.:	LB94870
Lab Sample ID:	J2512-01	Matrix:	Solid
Level (low/med):	low	% Solid:	83.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.054	J	1	0.038		0.29	mg/Kg	04/24/2018	04/25/2018	9012B



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Report of Analysis

Client:		Date Collected:	4/20/2018 12:00:00 AM
Project:	LB94870	Date Received:	4/20/2018 12:00:00 AM
Client Sample ID:	TP-2-12	SDG No.:	LB94870
Lab Sample ID:	J2512-02	Matrix:	Solid
Level (low/med):	low	% Solid:	76.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.0014	U	1	0.04		0.3	mg/Kg	04/24/2018	04/25/2018	9012B



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Report of Analysis

Client:		Date Collected:	4/20/2018 12:00:00 AM
Project:	LB94870	Date Received:	4/20/2018 12:00:00 AM
Client Sample ID:	TP-3-2	SDG No.:	LB94870
Lab Sample ID:	J2512-03	Matrix:	Solid
Level (low/med):	low	% Solid:	86.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.021	U	1	0.035		0.26	mg/Kg	04/24/2018	04/25/2018	9012B



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Report of Analysis

Client:		Date Collected:	4/20/2018 12:00:00 AM
Project:	LB94870	Date Received:	4/20/2018 12:00:00 AM
Client Sample ID:	TP-5-7-9	SDG No.:	LB94870
Lab Sample ID:	J2512-04	Matrix:	Solid
Level (low/med):	low	% Solid:	75.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.052	U	1	0.042		0.32	mg/Kg	04/24/2018	04/25/2018	9012B



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Report of Analysis

Client:		Date Collected:	4/23/2018 12:00:00 AM
Project:	LB94870	Date Received:	4/23/2018 12:00:00 AM
Client Sample ID:	CO-W-1	SDG No.:	LB94870
Lab Sample ID:	J2522-01	Matrix:	Solid
Level (low/med):	low	% Solid:	87

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.054	J	1	0.036		0.27	mg/Kg	04/24/2018	04/25/2018	9012B



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Report of Analysis

Client:		Date Collected:	4/23/2018 12:00:00 AM
Project:	LB94870	Date Received:	4/23/2018 12:00:00 AM
Client Sample ID:	CO-S-1	SDG No.:	LB94870
Lab Sample ID:	J2522-02	Matrix:	Solid
Level (low/med):	low	% Solid:	96.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.03	U	1	0.032		0.24	mg/Kg	04/24/2018	04/25/2018	9012B



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Report of Analysis

Client:		Date Collected:	4/23/2018 12:00:00 AM
Project:	LB94870	Date Received:	4/23/2018 12:00:00 AM
Client Sample ID:	CO-W-2	SDG No.:	LB94870
Lab Sample ID:	J2522-03	Matrix:	Solid
Level (low/med):	low	% Solid:	93.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.056	J	1	0.033		0.25	mg/Kg	04/24/2018	04/25/2018	9012B



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Report of Analysis

Client:		Date Collected:	4/23/2018 12:00:00 AM
Project:	LB94870	Date Received:	4/23/2018 12:00:00 AM
Client Sample ID:	CO-S-2	SDG No.:	LB94870
Lab Sample ID:	J2522-04	Matrix:	Solid
Level (low/med):	low	% Solid:	96.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.13	U	1	0.032		0.25	mg/Kg	04/24/2018	04/25/2018	9012B



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Report of Analysis

Client:		Date Collected:	4/23/2018 12:00:00 AM
Project:	LB94870	Date Received:	4/23/2018 12:00:00 AM
Client Sample ID:	CO-W-3	SDG No.:	LB94870
Lab Sample ID:	J2522-05	Matrix:	Solid
Level (low/med):	low	% Solid:	94

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.11	J	1	0.033		0.25	mg/Kg	04/24/2018	04/25/2018	9012B



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Report of Analysis

Client:		Date Collected:	4/23/2018 12:00:00 AM
Project:	LB94870	Date Received:	4/23/2018 12:00:00 AM
Client Sample ID:	CO-S-3	SDG No.:	LB94870
Lab Sample ID:	J2522-06	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	0.09	J	1	0.031		0.23	mg/Kg	04/24/2018	04/25/2018	9012B



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Report of Analysis

Client:		Date Collected:	
Project:	LB94870	Date Received:	
Client Sample ID:	LOWPB108566	SDG No.:	LB94870
Lab Sample ID:	LOWPB108566	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	0.0093		1	0.003		0.005	mg/L		04/25/2018	9012B



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Report of Analysis

Client:		Date Collected:	
Project:	LB94870	Date Received:	
Client Sample ID:	LOWPB108566	SDG No.:	LB94870
Lab Sample ID:	LOWPB108566	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: LB94870

SDG No.: LB94870

Contract: _____ Lab Code: CHEM

Case No.: LB94870

SAS No.: LB94870

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	Cyanide	0.098	0.099	99		85 - 115		04/25/2018	10:04	lb94870



GENCHEM

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB94870

SDG No.: LB94870

Contract: _____ Lab Code: CHEM

Case No.: LB94870

SAS No.: LB94870

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	Cyanide	0.24	0.25	96		90 - 110		04/25/2018	10:04	lb94870
CCV2	Cyanide	0.24	0.25	96		90 - 110		04/25/2018	10:12	lb94870
CCV3	Cyanide	0.24	0.25	96		90 - 110		04/25/2018	10:19	lb94870
CCV4	Cyanide	0.25	0.25	100		90 - 110		04/25/2018	10:19	lb94870



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB94870 **SDG No.:** LB94870
Contract: **Lab Code:** CHEM **Case No.:** LB94870 **SAS No.:** LB94870

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB1	Cyanide	-0.00027	+/-0.005	U		0.005		04/25/2018	10:04	lb94870

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB1	Cyanide	-0.00038	+/-0.005	U		0.005		04/25/2018	10:04	1b94870
CCB2	Cyanide	-0.00052	+/-0.005	U		0.005		04/25/2018	10:12	1b94870
CCB3	Cyanide	-0.00032	+/-0.005	U		0.005		04/25/2018	10:19	1b94870
CCB4	Cyanide	-0.0002	+/-0.005	U		0.005		04/25/2018	10:19	1b94870



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB94870

SDG No.: LB94870

Contract: Lab Code: CHEM

Case No.: LB94870

SAS No.: LB94870

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: LB94870

SDG No.: LB94870

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
PB108566BL	Cyanide	SOLID		Batch Number:		PB108566		Prep Date:	04/24/2018	
		-0.026	<0.25	U		0.25		04/25/2018	10:04	lb94870
Sample ID	Analyte	Result (mg/L)	Acceptance Limit	Conc Qual	LOD mg/L	CRQL mg/L	M	Analysis Date	Analysis Time	Run
PB108567BL	Cyanide	WATER		Batch Number:		PB108567		Prep Date:	04/24/2018	
		-0.00058	<0.005	U		0.005		04/25/2018	10:19	lb94870



GENCHEM
- 5a -
MATRIX SPIKE SUMMARY

client: LB94870 level: low sdg no.: LB94870
contract: lab code: CHEM case no.: LB94870 sas no.: LB94870
matrix: WATER sample id: J2510-02 client id: FADW4710LMS
Percent Solids for Sample: 0 Spiked ID: J2510-02MS Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/L	75 - 125	0.04		0.0036	J	0.04	91		



GENCHEM
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: LB94870 level: low sdg no.: LB94870
contract: lab code: CHEM case no.: LB94870 sas no.: LB94870
matrix: WATER sample id: J2510-02 client id: FADW4710LMSD
Percent Solids for Sample: 0 Spiked ID: J2510-02MSD Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/L	75 - 125	0.04		0.0036	J	0.04	91		



GENCHEM
- 5a -
MATRIX SPIKE SUMMARY

client: LB94870 level: low sdg no.: LB94870
contract: lab code: CHEM case no.: LB94870 sas no.: LB94870
matrix: Solid sample id: J2512-01 client id: TP-1-1-3MS
Percent Solids for Sample: 83.8 Spiked ID: J2512-01MS Percent Solids for Spike Sample: 83.8

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	1.7		0.054	J	2.3	72	*	



GENCHEM
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: LB94870 level: low sdg no.: LB94870
contract: lab code: CHEM case no.: LB94870 sas no.: LB94870
matrix: Solid sample id: J2512-01 client id: TP-1-1-3MSD
Percent Solids for Sample: 83.8 Spiked ID: J2512-01MSD Percent Solids for Spike Sample: 83.8

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	1.6		0.054	J	2.3	67	*	



GENCHEM

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB94870 **Level:** LOW **SDG No.:** LB94870
Contract: **Lab Code:** CHEM **Case No.:** LB94870 **SAS No.:** LB94870
Matrix: WATER **Sample ID:** J2510-02 **Client ID:** FADW4710LDUP
Percent Solids for Sample: 0 **Duplicate ID** J2510-02DUP **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/L	20	0.0036	J	0.0035	J	3		

GENCHEM

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB94870 **Level:** LOW **SDG No.:** LB94870
Contract: **Lab Code:** CHEM **Case No.:** LB94870 **SAS No.:** LB94870
Matrix: WATER **Sample ID:** J2510-02MS **Client ID:** FADW4710LMSD
Percent Solids for Sample: 0 **Duplicate ID** J2510-02MSD **Percent Solids for Spike Sample:** 0

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/L	20	0.04		0.04		0		

GENCHEM

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB94870 **Level:** LOW **SDG No.:** LB94870
Contract: **Lab Code:** CHEM **Case No.:** LB94870 **SAS No.:** LB94870
Matrix: Solid **Sample ID:** J2512-01 **Client ID:** TP-1-1-3DUP
Percent Solids for Sample: 83.8 **Duplicate ID** J2512-01DUP **Percent Solids for Spike Sample:** 83.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	0.054	J	0.036	U	200.0	*	

GENCHEM

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: LB94870 **Level:** LOW **SDG No.:** LB94870
Contract: **Lab Code:** CHEM **Case No.:** LB94870 **SAS No.:** LB94870
Matrix: Solid **Sample ID:** J2512-01MS **Client ID:** TP-1-1-3MSD
Percent Solids for Sample: 83.8 **Duplicate ID** J2512-01MSD **Percent Solids for Spike Sample:** 83.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	1.7		1.6		6		



GENCHEM

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB94870

SDG No.: LB94870

Contract:

Lab Code: CHEM

Case No.: LB94870

SAS No.: LB94870

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB108566BS Cyanide	mg/Kg	4.9	4.7		95.9	85 - 115	



GENCHEM

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB94870

SDG No.: LB94870

Contract:

Lab Code: CHEM

Case No.: LB94870

SAS No.: LB94870

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB108567BS Cyanide	mg/L	0.1	0.098		98	85 - 115	