

Daily Analysis Runlog For Sequence/QC Batch ID # LB91171

Review By

Review On

SubDirectory

LB91171

Test :

Cyanide

STD. NAME		STD REF.#				
ICAL Standard		WP59164,WP59165,WP59166,WP59167,WP59168,WP59169,WP59162				
ICV Standard		WP59171				
CCV Standard		WP59170				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		N/A				
Chk Standard		WP55836,WP59172,WP55355				

Sr#	SampleID	ClientID	QcType	Date	Comment	Status
1	0.0PPBCN	0.0PPBCN	CAL1	10/27/17 14:30		OK
2	5.0PPBCN	5.0PPBCN	CAL2	10/27/17 14:30		OK
3	10PPBCN	10PPBCN	CAL3	10/27/17 14:30		OK
4	50PPBCN	50PPBCN	CAL4	10/27/17 14:30		OK
5	100PPBCN	100PPBCN	CAL5	10/27/17 14:30		OK
6	250PPBCN	250PPBCN	CAL6	10/27/17 14:30		OK
7	500PPBCN	500PPBCN	CAL7	10/27/17 14:30		OK
8	ICV1	ICV1	ICV	10/27/17 17:24		OK
9	ICB1	ICB1	ICB	10/27/17 17:24		OK
10	CCV1	CCV1	CCV	10/27/17 17:24		OK
11	CCB1	CCB1	CCB	10/27/17 17:24		OK
12	PB103728BL	PB103728BL	MB	10/27/17 17:24		OK
13	PB103728BS	PB103728BS	LCS	10/27/17 17:24		OK
14	LOWPB103728	LOWPB103728	SAM	10/27/17 17:32		OK
15	HIGHPB103728	HIGHPB103728	SAM	10/27/17 17:32		OK
16	I6157-01	RLF-SD-1	SAM	10/27/17 17:32		OK
17	I6157-01DUP	RLF-SD-1DUP	DUP	10/27/17 17:32		OK
18	I6157-01MS	RLF-SD-1MS	MS	10/27/17 17:32		OK
19	I6157-01MSD	RLF-SD-1MSD	MSD	10/27/17 17:32		OK
20	I6157-02	RLF-SD-3	SAM	10/27/17 17:32		OK
21	I6157-03	RLF-SD-4	SAM	10/27/17 17:32		OK

Daily Analysis Runlog For Sequence/QC Batch ID # LB91171

Review By		Review On				
SubDirectory		LB91171		Test : Cyanide		
STD. NAME		STD REF.#				
ICAL Standard		WP59164,WP59165,WP59166,WP59167,WP59168,WP59169,WP59162				
ICV Standard		WP59171				
CCV Standard		WP59170				
ICSA Standard		N/A				
CRI Standard		N/A				
LCS Standard		N/A				
Chk Standard		WP55836,WP59172,WP55355				
22	CCV2	CCV2	CCV	10/27/17 17:39		OK
23	CCB2	CCB2	CCB	10/27/17 17:39		OK
24	I6157-04	RLF-SD-5	SAM	10/27/17 17:39		OK
25	I6157-05	RLF-SD-6	SAM	10/27/17 17:39		OK
26	I6157-06	RLF-FD-02	SAM	10/27/17 17:39		OK
27	I6166-01	RO-72-11966	SAM	10/27/17 17:39		OK
28	I6167-01	S13-SP2C	SAM	10/27/17 17:39		OK
29	I6171-01	CL-01-102617-A	SAM	10/27/17 17:59		OK
30	I6171-03	CL-01-102617-B	SAM	10/27/17 17:59		OK
31	I6171-05	CL-01-102617-C	SAM	10/27/17 17:59		OK
32	I6171-07	CL-01-102617-D	SAM	10/27/17 17:59		OK
33	CCV3	CCV3	CCV	10/27/17 17:59		OK
34	CCB3	CCB3	CCB	10/27/17 17:59		OK
35	I6171-09	CL-01-102617-E	SAM	10/27/17 17:59		OK
36	I6174-02	B7(0-10)COMP	SAM	10/27/17 17:59		OK
37	I6169-01	SU-04-102617	SAM	10/27/17 18:09		OK
38	CCV4	CCV4	CCV	10/27/17 18:09		OK
39	CCB4	CCB4	CCB	10/27/17 18:11		OK



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Report of Analysis

Client:		Date Collected:	
Project:	LB91171	Date Received:	
Client Sample ID:	HIGHPB103728	SDG No.:	LB91171
Lab Sample ID:	HIGHPB103728	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		10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/25/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	RLF-SD-1	SDG No.:	LB91171
Lab Sample ID:	I6157-01	Matrix:	Solid
Level (low/med):	low	% Solid:	70.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.017	U	1	0.045		0.34	mg/Kg	10/27/2017	10/27/2017	9012B

Report of Analysis

Client:		Date Collected:	10/25/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	RLF-SD-3	SDG No.:	LB91171
Lab Sample ID:	I6157-02	Matrix:	Solid
Level (low/med):	low	% Solid:	66

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.0078	U	1	0.048		0.36	mg/Kg	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/25/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	RLF-SD-4	SDG No.:	LB91171
Lab Sample ID:	I6157-03	Matrix:	Solid
Level (low/med):	low	% Solid:	64.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.01	U	1	0.049		0.37	mg/Kg	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/25/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	RLF-SD-5	SDG No.:	LB91171
Lab Sample ID:	I6157-04	Matrix:	Solid
Level (low/med):	low	% Solid:	52.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.0041	U	1	0.06		0.46	mg/Kg	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/25/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	RLF-SD-6	SDG No.:	LB91171
Lab Sample ID:	I6157-05	Matrix:	Solid
Level (low/med):	low	% Solid:	54.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.024	U	1	0.057		0.43	mg/Kg	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/25/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	RLF-FD-02	SDG No.:	LB91171
Lab Sample ID:	I6157-06	Matrix:	Solid
Level (low/med):	low	% Solid:	57.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.074	U	1	0.056		0.42	mg/Kg	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/26/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	RO-72-11966	SDG No.:	LB91171
Lab Sample ID:	I6166-01	Matrix:	Solid
Level (low/med):	low	% Solid:	94.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.034	J	1	0.034		0.25	mg/Kg	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/26/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	S13-SP2C	SDG No.:	LB91171
Lab Sample ID:	I6167-01	Matrix:	Solid
Level (low/med):	low	% Solid:	67.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.17	J	1	0.047		0.36	mg/Kg	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/26/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	SU-04-102617	SDG No.:	LB91171
Lab Sample ID:	I6169-01	Matrix:	Solid
Level (low/med):	low	% Solid:	91.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.024	U	1	0.034		0.26	mg/Kg	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/26/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	CL-01-102617-A	SDG No.:	LB91171
Lab Sample ID:	I6171-01	Matrix:	Solid
Level (low/med):	low	% Solid:	93.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	-0.012	U	1	0.034		0.26	mg/Kg	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/26/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	CL-01-102617-B	SDG No.:	LB91171
Lab Sample ID:	I6171-03	Matrix:	Solid
Level (low/med):	low	% Solid:	92.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.074	J	1	0.035		0.26	mg/Kg	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/26/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	CL-01-102617-C	SDG No.:	LB91171
Lab Sample ID:	I6171-05	Matrix:	Solid
Level (low/med):	low	% Solid:	93.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.0038	U	1	0.034		0.26	mg/Kg	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/26/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	CL-01-102617-D	SDG No.:	LB91171
Lab Sample ID:	I6171-07	Matrix:	Solid
Level (low/med):	low	% Solid:	93

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	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/26/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	CL-01-102617-E	SDG No.:	LB91171
Lab Sample ID:	I6171-09	Matrix:	Solid
Level (low/med):	low	% Solid:	92.3

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.0018	U	1	0.035		0.27	mg/Kg	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	10/26/2017 12:00:00 AM
Project:	LB91171	Date Received:	10/26/2017 12:00:00 AM
Client Sample ID:	B7(0-10)COMP	SDG No.:	LB91171
Lab Sample ID:	I6174-02	Matrix:	Solid
Level (low/med):	low	% Solid:	97.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.065	J	1	0.033		0.25	mg/Kg	10/27/2017	10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	
Project:	LB91171	Date Received:	
Client Sample ID:	LOWPB103728	SDG No.:	LB91171
Lab Sample ID:	LOWPB103728	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	0.0096		1	0.003		0.005	mg/L		10/27/2017	9012B



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Report of Analysis

Client:		Date Collected:	
Project:	LB91171	Date Received:	
Client Sample ID:	LOWPB103728	SDG No.:	LB91171
Lab Sample ID:	LOWPB103728	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

Sample ID	Analyte	Result	True Value	% Recovery	% RSD	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
		mg/L								
ICV1	Cyanide	0.098	0.099	99	0	85 - 115		10/27/2017	17:24	LB91171



GENCHEM

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB91171

SDG No.: LB91171

Contract: _____ Lab Code: CHEM

Case No.: LB91171

SAS No.: LB91171

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	0.25	0.25	100	0	90 - 110		10/27/2017	17:24	LB91171
CCV2	Cyanide	0.24	0.25	96	0	90 - 110		10/27/2017	17:39	LB91171
CCV3	Cyanide	0.25	0.25	100	0	90 - 110		10/27/2017	17:59	LB91171
CCV4	Cyanide	0.24	0.25	96	0	90 - 110		10/27/2017	18:09	LB91171



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB91171

SDG No.: LB91171

Contract:

Lab Code: CHEM

Case No.: LB91171

SAS No.: LB91171

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB1	Cyanide	0.00047	+/-0.005	U		0.005		10/27/2017	17:24	LB91171

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB1	Cyanide	0.00047	+/-0.005	U		0.005		10/27/2017	17:24	LB91171
CCB2	Cyanide	0.0023	+/-0.005	U		0.005		10/27/2017	17:39	LB91171
CCB3	Cyanide	-0.00037	+/-0.005	U		0.005		10/27/2017	17:59	LB91171
CCB4	Cyanide	-0.00063	+/-0.005	U		0.005		10/27/2017	18:11	LB91171



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB91171

SDG No.: LB91171

Contract: Lab Code: CHEM

Case No.: LB91171

SAS No.: LB91171

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: LB91171

SDG No.: LB91171

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
PB103728BL		SOLID		Batch Number:		PB103728		Prep Date:	10/27/2017	
	Cyanide	-0.00039	<0.24	U		0.24		10/27/2017	17:24	LB91171



GENCHEM
- 5a -
MATRIX SPIKE SUMMARY

client: LB91171 level: low sdg no.: LB91171
contract: lab code: CHEM case no.: LB91171 sas no.: LB91171
matrix: Solid sample id: I6157-01 client id: RLF-SD-1MS
Percent Solids for Sample: 70.6 Spiked ID: I6157-01MS Percent Solids for Spike Sample: 70.6

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	2.4		0.045	U	2.8	85.7		

GENCHEM
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: <u>LB91171</u>	level: <u>low</u>	sdg no.: <u>LB91171</u>
contract: _____	lab code: <u>CHEM</u>	case no.: <u>LB91171</u> sas no.: <u>LB91171</u>
matrix: <u>Solid</u>	sample id: <u>I6157-01</u>	client id: <u>RLF-SD-1MSD</u>
Percent Solids for Sample: 70.6	Spiked ID: I6157-01MSD	Percent Solids for Spike Sample: 70.6

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cyanide	mg/Kg	75 - 125	2.3		0.045	U	2.8	82.1		

GENCHEM

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DUPLICATE SAMPLE SUMMARY

Client: LB91171 **Level:** LOW **SDG No.:** LB91171
Contract: **Lab Code:** CHEM **Case No.:** LB91171 **SAS No.:** LB91171
Matrix: Solid **Sample ID:** I6157-01 **Client ID:** RLF-SD-1DUP
Percent Solids for Sample: 70.6 **Duplicate ID** I6157-01DUP **Percent Solids for Spike Sample:** 70.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	0.045	U	0.022	U			

GENCHEM

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DUPLICATE SAMPLE SUMMARY

Client: LB91171 **Level:** LOW **SDG No.:** LB91171
Contract: **Lab Code:** CHEM **Case No.:** LB91171 **SAS No.:** LB91171
Matrix: Solid **Sample ID:** I6157-01MS **Client ID:** RLF-SD-1MSD
Percent Solids for Sample: 70.6 **Duplicate ID** I6157-01MSD **Percent Solids for Spike Sample:** 70.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Cyanide	mg/Kg	20	2.4		2.3		4		

