

LB86168

Client:

GENCHEM

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

SDG No.: LB86168

Contract:		Lab C	Lab Code: CHEM Case No.: LB86168		SAS	SAS No.: <u>LB86168</u>				
Initial Calibrat	ion Source: libration Source:									
Comple ID	Analysta	Result mg/L	True Value		% DCD	Acceptance	м	Analysis	Analysis	Run
Sample ID	Analyte			Recovery	RSD	Window (%R)	M	Date	Time	Number
ICV1	Cyanide	0.093	0.099	93.9	0	85 - 115		03/06/2017	11:28	LB86168



- 2a - INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB86168			SDG No.:	LB86168	
Contract:	Lab Code:	СНЕМ	Case No.:	LB86168	SAS No.: LB86168
Initial Calibration Source:		_			
Continuing Calibration Source:					

		Result mg/L	True Value	%	%	Acceptance		Analysis	Analysis	Run
Sample ID	Analyte	_		Recovery	RSD	Window (%R)	M	Date	Time	Number
CCV1	Cyanide	0.24	0.25	96	0	90 - 110		03/06/2017	11:28	LB86168
CCV2	Cyanide	0.26	0.25	104	0	90 - 110		03/06/2017	11:58	LB86168



- 3a -INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

 Client:
 LB86168

 SDG No.:
 LB86168

 Contract:
 Lab Code:
 CHEM
 Case No.:
 LB86168
 SAS No.:
 LB86168

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICR1	Cvanide	0.00038	+/-0.005	IJ		0.00	5	03/06/2017	11:28	LB86168



- 3a INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB86168 SDG No.: LB86168

 Contract:
 Lab Code:
 CHEM
 Case No.:
 LB86168
 SAS No.:
 LB86168

Sample ID	Analyte	Result mg/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB1	Cyanide	-0.0000714	+/-0.005	U		0.003	5	03/06/2017	11:28	LB86168
CCB2	Cyanide	0.00034	+/-0.005	U		0.003	5	03/06/2017	11:58	LB86168



- 3a -INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client:	LB86168		_		SDG No.	:	LB86168				
Contract:		Lab Code:	СНЕМ		Case No.	:	LB86168	_	SAS No.: LB	36168	_
Sample ID	Analyta	Result	Acceptance	Conc	TOD CI	ρΛΙ	M	Analysis	Analysis Time	Run Number	



Lab Sample ID:

Report of Analysis

Matrix:

WATER

Client: Date Collected:

Project: LB86168 Date Received:

HIGHPB97334

Client Sample ID: HIGHPB97334 SDG No.: LB86168

Level (low/med): low % Solid: 0

Cas	Parameter	Conc.	Qua. Dl	MDL	LOD	LOQ / CRQL	Units Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.49	1	0.003		0.005	mg/L	03/06/2017	7 9012B



Report of Analysis

Client: Date Collected: 3/3/2017 12:00:00 AM

Project: LB86168 Date Received: 3/3/2017 12:00:00 AM

Client Sample ID: FRAC-TANK-252657 SDG No.: LB86168
Lab Sample ID: I2100-01 Matrix: WATER

Level (low/med): low % Solid: 0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Unit	s Prep Date	Date Ana.	Ana Met.
57-12-5	Cyanide	0.00039	U	1	0.003		0.005	mg/L	03/03/2017	03/06/2017	9012B



Lab Sample ID:

Report of Analysis

Matrix:

WATER

Client: Date Collected:

Project: LB86168 Date Received:

LOWPB97334

Client Sample ID: LOWPB97334 SDG No.: LB86168

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	0.01		1	0.003		0.005	mg/L	03/06/2017	7 9012B



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Report of Analysis

Client: Date Collected:

Project: LB86168 Date Received:

Client Sample ID: LOWPB97334 SDG No.: LB86168
Lab Sample ID: LOWPB97334 Matrix: WATER

Level (low/med): low % Solid: 0

Cas Parameter Conc. Qua. DF MDL LOD LOQ/CRQL Units Prep Date Date Ana. Ana Met.

Color Before: Clarity Before:

Color After: Clarity After:

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.

Texture:

Artifacts:

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 - 3b PREPARATION BLANK SUMMARY

Client: LB86168 **SDG No.:** LB86168

Instrument: Konelab 20

Sample ID	Analyte	Result (mg/L)	Acceptance Limit	Conc Qual	LOD mg/L	CRQL mg/L	M	Analysis Date	Analysis Time	Run
PB97334BL		WATER		Batch Nu	mber:	PB97334		Prep Date:	03/03/20	017
	Cyanide	0.0005	< 0.005	U		0.005		03/06/2017	11:28	LB86168



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MATRIX SPIKE SUMMARY

client:	LB86168		level:	low		sdg no.:	LB86168		_	
contract:			lab cod	e: <u>CHE</u>	M	case no.:	LB86168	s	as no.:	LB86168
matrix:	WATER		sample id:	<u>I2100-01</u>		_ client id:	FRAC-TANI	K-25265	7MS	
Percent So	olids for Sample:	0	Spiked ID:	I2100-01	MS	Percent Solid	ls for Spike Sa	mple:	0	
		Acceptance	Spiked	Sample		Spike	%			
Analyte	Units	Limit %R	Result C	Result	C	Added	Recovery	Qual	M	
Cvanide	mg/L	75 - 125	0.033	0.003	IJ	0.04	82.5			



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MATRIX SPIKE DUPLICATE SUMMARY

client:	LB86168		level:	low		sdg no.:	LB86168		_	
contract:			lab co	de: CHE	M	case no.:	LB86168	sa	s no.:	LB86168
matrix:	WATER		sample id:	<u>I2100-01</u>		_ client id:	FRAC-TANI	K-252657	MSD	
Percent Se	olids for Sample:	0	Spiked ID:	I2100-01	IMSD	Percent Solid	ls for Spike Sa	mple:	0	
		Acceptance	MSD	Sample		Spike	%			
Analyte	Units	Limit %R	Result (C Result	C	Added	Recovery	Qual	M	
Cvanide	mg/L	75 - 125	0.034	0.003	U	0.04	85			



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DUPLICATE SAMPLE SUMMARY

Client:	LB86168		Level: I	LOW	SDG 1	No.:	LB86168		_	
Contract:			Lab Code:	CHEM	Case l	No.:	LB86168	S.	AS No.:	LB86168
Matrix:	WATER		Sample ID: I	2100-01	Client ID	:	FRAC-TAN	K-252657	DUP	
Percent Solids for Sample: 0			Duplicate ID I	2100-01DUP	Percent S	Solids	s for Spike S	ample:	0	
Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M	
Cyanide	mg/L	20	0.003	U	0.001	U				



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DUPLICATE SAMPLE SUMMARY

Client:	LB86168		Level:	LOW	SDG N	lo.: <u>LB</u>	86168		_	
Contract:			Lab Cod	e: <u>CHEM</u>	Case N	o.: <u>LB</u>	86168	S.	AS No.:	LB86168
Matrix:	WATER		Sample ID:	<u>I2100-01MS</u>	Client ID:	FRA	.C-TANK	K-252657	MSD	
Percent Solids for Sample: 0			Duplicate ID	I2100-01MSD	Percent So	olids for	Spike Sa	mple:	0	
Analyte	Units	Acceptance Limit	Sample Result		Duplicate Result	C 1	RPD	Qual	M	
Cyanide	mg/L	20	0.033		0.034		3			



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LABORATORY CONTROL SAMPLE SUMMARY

Client:	LB86168			SDG No.:	LB86168			
Contract:		Lab Code:	CHEM	Case No.:	LB86168	SAS No.:	LB86168	

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M	
PB97334BS								
Cyanide	mg/L	0.1	0.097		97	85 - 115		