

## Daily Analysis Runlog For Sequence/QC Batch ID # LB93585

Review By

Review On

SubDirectory

LB93585

Test :

Cyanide

| STD. NAME     | STD REF.#                                               |
|---------------|---------------------------------------------------------|
| ICAL Standard | WP62332,WP62333,WP62334,WP62335,WP62336,WP62337,WP62338 |
| ICV Standard  | W1542                                                   |
| CCV Standard  | WP62339                                                 |
| ICSA Standard | N/A                                                     |
| CRI Standard  | N/A                                                     |
| LCS Standard  | WP58910                                                 |
| Chk Standard  | WP62341,WP59958,WP60878                                 |

| Sr# | SampleID    | ClientID         | QcType | Date           | Comment | Status |
|-----|-------------|------------------|--------|----------------|---------|--------|
| 1   | 0.0PPBCN    | 0.0PPBCN         | CAL1   | 02/28/18 10:00 |         | OK     |
| 2   | 5.0PPBCN    | 5.0PPBCN         | CAL2   | 02/28/18 10:00 |         | OK     |
| 3   | 10PPBCN     | 10PPBCN          | CAL3   | 02/28/18 10:00 |         | OK     |
| 4   | 50PPBCN     | 50PPBCN          | CAL4   | 02/28/18 10:00 |         | OK     |
| 5   | 100PPBCN    | 100PPBCN         | CAL5   | 02/28/18 10:00 |         | OK     |
| 6   | 250PPBCN    | 250PPBCN         | CAL6   | 02/28/18 10:00 |         | OK     |
| 7   | 500PPBCN    | 500PPBCN         | CAL7   | 02/28/18 10:00 |         | OK     |
| 8   | ICV1        | ICV1             | ICV    | 02/28/18 15:59 |         | OK     |
| 9   | ICB1        | ICB1             | ICB    | 02/28/18 15:59 |         | OK     |
| 10  | CCV1        | CCV1             | CCV    | 02/28/18 15:59 |         | OK     |
| 11  | CCB1        | CCB1             | CCB    | 02/28/18 15:59 |         | OK     |
| 12  | PB106935BL  | PB106935BL       | MB     | 02/28/18 15:59 |         | OK     |
| 13  | PB106935BS  | PB106935BS       | LCS    | 02/28/18 15:59 |         | OK     |
| 14  | J1709-04    | OILY-WATER       | SAM    | 02/28/18 16:32 |         | OK     |
| 15  | J1709-04DUP | OILY-WATERDUP    | DUP    | 02/28/18 16:32 |         | OK     |
| 16  | J1709-04MS  | OILY-WATERMS     | MS     | 02/28/18 16:32 |         | OK     |
| 17  | J1709-04MSD | OILY-WATERMSD    | MSD    | 02/28/18 16:32 |         | OK     |
| 18  | J1715-04    | 500kV-OILY-WATER | SAM    | 02/28/18 16:32 |         | OK     |
| 19  | CCV2        | CCV2             | CCV    | 02/28/18 16:32 |         | OK     |
| 20  | CCB2        | CCB2             | CCB    | 02/28/18 16:32 |         | OK     |
| 21  | J1709-01    | DRUM-1-2         | SAM    | 02/28/18 16:32 |         | OK     |



Instrument ID : KONELAB

284 Sheffield Street, Mountainside, New Jersey 07092 Phone : 908 789 8900 Fax : 908 789 8922

**Daily Analysis Runlog For Sequence/QCBatch ID # LB93585**

|                  |          |                                                         |     |                |  |    |
|------------------|----------|---------------------------------------------------------|-----|----------------|--|----|
| Review By        |          | Review On                                               |     |                |  |    |
| SubDirectory     |          | Test : Cyanide                                          |     |                |  |    |
| LB93585          |          |                                                         |     |                |  |    |
| <b>STD. NAME</b> |          | <b>STD REF.#</b>                                        |     |                |  |    |
| ICAL Standard    |          | WP62332,WP62333,WP62334,WP62335,WP62336,WP62337,WP62338 |     |                |  |    |
| ICV Standard     |          | W1542                                                   |     |                |  |    |
| CCV Standard     |          | WP62339                                                 |     |                |  |    |
| ICSA Standard    |          | N/A                                                     |     |                |  |    |
| CRI Standard     |          | N/A                                                     |     |                |  |    |
| LCS Standard     |          | WP58910                                                 |     |                |  |    |
| Chk Standard     |          | WP62341,WP59958,WP60878                                 |     |                |  |    |
| 22               | J1710-07 | RO-215                                                  | SAM | 02/28/18 16:32 |  | OK |
| 23               | CCV3     | CCV3                                                    | CCV | 02/28/18 16:35 |  | OK |
| 24               | CCB3     | CCB3                                                    | CCB | 02/28/18 16:35 |  | OK |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 2/27/2018 12:00:00 AM |
| Project:          | LB93585  | Date Received:  | 2/27/2018 12:00:00 AM |
| Client Sample ID: | DRUM-1-2 | SDG No.:        | LB93585               |
| Lab Sample ID:    | J1709-01 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 77                    |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.008 | U    | 1  | 0.041 |     | 0.31       | mg/Kg | 02/28/2018 | 02/28/2018 | 9012B    |



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## Report of Analysis

|                   |            |                 |                       |
|-------------------|------------|-----------------|-----------------------|
| Client:           |            | Date Collected: | 2/27/2018 12:00:00 AM |
| Project:          | LB93585    | Date Received:  | 2/27/2018 12:00:00 AM |
| Client Sample ID: | OILY-WATER | SDG No.:        | LB93585               |
| Lab Sample ID:    | J1709-04   | 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   | 0.0077 |      | 1  | 0.003 |     | 0.005      | mg/L  | 02/28/2018 | 02/28/2018 | 9012B    |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 2/27/2018 12:00:00 AM |
| Project:          | LB93585  | Date Received:  | 2/27/2018 12:00:00 AM |
| Client Sample ID: | RO-215   | SDG No.:        | LB93585               |
| Lab Sample ID:    | J1710-07 | 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   | 0.013 | U    | 1  | 0.039 |     | 0.3        | mg/Kg | 02/28/2018 | 02/28/2018 | 9012B    |



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## Report of Analysis

|                   |                  |                 |                       |
|-------------------|------------------|-----------------|-----------------------|
| Client:           |                  | Date Collected: | 2/27/2018 12:00:00 AM |
| Project:          | LB93585          | Date Received:  | 2/27/2018 12:00:00 AM |
| Client Sample ID: | 500kV-OILY-WATER | SDG No.:        | LB93585               |
| Lab Sample ID:    | J1715-04         | 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   | 0.0063 |      | 1  | 0.003 |     | 0.005      | mg/L  | 02/28/2018 | 02/28/2018 | 9012B    |



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## Report of Analysis

|                   |                  |                 |                       |
|-------------------|------------------|-----------------|-----------------------|
| Client:           |                  | Date Collected: | 2/27/2018 12:00:00 AM |
| Project:          | LB93585          | Date Received:  | 2/27/2018 12:00:00 AM |
| Client Sample ID: | 500kV-OILY-WATER | SDG No.:        | LB93585               |
| Lab Sample ID:    | J1715-04         | 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:

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: LB93585

SDG No.: LB93585

Contract: \_\_\_\_\_

Lab Code: CHEM

Case No.: LB93585

SAS No.: LB93585

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: \_\_\_\_\_

---

| Sample ID | Analyte | Result<br>mg/L | True Value | %<br>Recovery | Qual | Acceptance<br>Window (%R) | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|------------|---------------|------|---------------------------|---|------------------|------------------|---------------|
| ICV1      | Cyanide | 0.097          | 0.099      | 98            |      | 85 - 115                  |   | 02/28/2018       | 15:59            | LB93585       |

---





## GENCHEM

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB93585

SDG No.: LB93585

Contract: \_\_\_\_\_ Lab Code: CHEM

Case No.: LB93585

SAS No.: LB93585

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: \_\_\_\_\_

| Sample ID | Analyte | Result<br>mg/L | True Value | %<br>Recovery | Qual | Acceptance<br>Window (%R) | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|------------|---------------|------|---------------------------|---|------------------|------------------|---------------|
| CCV1      | Cyanide | 0.26           | 0.25       | 104           |      | 90 - 110                  |   | 02/28/2018       | 15:59            | LB93585       |
| CCV2      | Cyanide | 0.25           | 0.25       | 100           |      | 90 - 110                  |   | 02/28/2018       | 16:32            | LB93585       |
| CCV3      | Cyanide | 0.27           | 0.25       | 108           |      | 90 - 110                  |   | 02/28/2018       | 16:35            | LB93585       |



**GENCHEM**

**- 3a -**

**INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY**

**Client:** LB93585 **SDG No.:** LB93585  
**Contract:**                      **Lab Code:** CHEM **Case No.:** LB93585 **SAS No.:** LB93585

| Sample ID | Analyte | Result<br>mg/L | Acceptance<br>Limit | Conc<br>Qual | LOD | CRQL  | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|---------------------|--------------|-----|-------|---|------------------|------------------|---------------|
| ICB1      | Cyanide | 0.00019        | +/-0.005            | U            |     | 0.005 |   | 02/28/2018       | 15:59            | LB93585       |

| Sample ID | Analyte | Result<br>mg/L | Acceptance<br>Limit | Conc<br>Qual | LOD | CRQL  | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|---------------------|--------------|-----|-------|---|------------------|------------------|---------------|
| CCB1      | Cyanide | 0.00011        | +/-0.005            | U            |     | 0.005 |   | 02/28/2018       | 15:59            | LB93585       |
| CCB2      | Cyanide | 0.00022        | +/-0.005            | U            |     | 0.005 |   | 02/28/2018       | 16:32            | LB93585       |
| CCB3      | Cyanide | -0.0001        | +/-0.005            | U            |     | 0.005 |   | 02/28/2018       | 16:35            | LB93585       |



GENCHEM

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB93585

SDG No.: LB93585

Contract: Lab Code: CHEM

Case No.: LB93585

SAS No.: LB93585

| Sample ID | Analyte | Result<br>mg/L | Acceptance<br>Limit | Conc<br>Qual | LOD | CRQL | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|---------------------|--------------|-----|------|---|------------------|------------------|---------------|
|-----------|---------|----------------|---------------------|--------------|-----|------|---|------------------|------------------|---------------|



GENCHEM  
- 3b -  
PREPARATION BLANK SUMMARY

Client: LB93585

SDG No.: LB93585

Instrument: Konelab 20

| Sample ID  | Analyte | Result<br>(mg/L) | Acceptance<br>Limit | Conc<br>Qual       | LOD<br>mg/L | CRQL<br>mg/L      | M | Analysis<br>Date         | Analysis<br>Time    | Run     |
|------------|---------|------------------|---------------------|--------------------|-------------|-------------------|---|--------------------------|---------------------|---------|
| PB106935BL | Cyanide | WATER<br>0.00011 | <0.005              | Batch Number:<br>U |             | PB106935<br>0.005 |   | Prep Date:<br>02/28/2018 | 02/28/2018<br>15:59 | LB93585 |



GENCHEM  
- 5a -  
MATRIX SPIKE SUMMARY

client: LB93585 level: low sdg no.: LB93585  
contract: lab code: CHEM case no.: LB93585 sas no.: LB93585  
matrix: WATER sample id: J1709-04 client id: OILY-WATERMS  
Percent Solids for Sample: 0 Spiked ID: J1709-04MS Percent Solids for Spike Sample: 0

| Analyte | Units | Acceptance<br>Limit %R | Spiked<br>Result | C | Sample<br>Result | C | Spike<br>Added | %<br>Recovery | Qual | M |
|---------|-------|------------------------|------------------|---|------------------|---|----------------|---------------|------|---|
| Cyanide | mg/L  | 75 - 125               | 0.036            |   | 0.0077           |   | 0.04           | 71            | *    |   |



GENCHEM  
- 5a -  
MATRIX SPIKE DUPLICATE SUMMARY

client: LB93585 level: low sdg no.: LB93585  
contract: lab code: CHEM case no.: LB93585 sas no.: LB93585  
matrix: WATER sample id: J1709-04 client id: OILY-WATERMSD  
Percent Solids for Sample: 0 Spiked ID: J1709-04MSD Percent Solids for Spike Sample: 0

| Analyte | Units | Acceptance<br>Limit %R | MSD<br>Result | C | Sample<br>Result | C | Spike<br>Added | %<br>Recovery | Qual | M |
|---------|-------|------------------------|---------------|---|------------------|---|----------------|---------------|------|---|
| Cyanide | mg/L  | 75 - 125               | 0.036         |   | 0.0077           |   | 0.04           | 71            | *    |   |



# GENCHEM

- 6 -

## DUPLICATE SAMPLE SUMMARY

Client: LB93585 Level: LOW SDG No.: LB93585  
Contract:                      Lab Code: CHEM Case No.: LB93585 SAS No.: LB93585  
Matrix: WATER Sample ID: J1709-04 Client ID: OILY-WATERDUP  
Percent Solids for Sample: 0 Duplicate ID J1709-04DUP Percent Solids for Spike Sample: 0

| Analyte | Units | Acceptance<br>Limit | Sample<br>Result | C | Duplicate<br>Result | C | RPD | Qual | M |
|---------|-------|---------------------|------------------|---|---------------------|---|-----|------|---|
| Cyanide | mg/L  | 20                  | 0.0077           |   | 0.0078              |   | 1   |      |   |



# GENCHEM

- 6 -

## DUPLICATE SAMPLE SUMMARY

**Client:** LB93585      **Level:** LOW      **SDG No.:** LB93585  
**Contract:**                           **Lab Code:** CHEM      **Case No.:** LB93585      **SAS No.:** LB93585  
**Matrix:** WATER      **Sample ID:** J1709-04MS      **Client ID:** OILY-WATERMSD  
**Percent Solids for Sample:** 0      **Duplicate ID** J1709-04MSD      **Percent Solids for Spike Sample:** 0

| Analyte | Units | Acceptance<br>Limit | Sample<br>Result | C | Duplicate<br>Result | C | RPD | Qual | M |
|---------|-------|---------------------|------------------|---|---------------------|---|-----|------|---|
| Cyanide | mg/L  | 20                  | 0.036            |   | 0.036               |   | 0   |      |   |



GENCHEM

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB93585

SDG No.: LB93585

Contract:

Lab Code: CHEM

Case No.: LB93585

SAS No.: LB93585

| Analyte               | Units | True Value | Result | C | %<br>Recovery | Acceptance<br>Limits | M |
|-----------------------|-------|------------|--------|---|---------------|----------------------|---|
| PB106935BS<br>Cyanide | mg/L  | 0.1        | 0.098  |   | 98            | 85 - 115             |   |