

CITY OF LOMITA



# Cypress Water Production Facility Monthly Status Report

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**April 2018**

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**CITY COUNCIL**

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**ADMINISTRATION**

RYAN SMOOT  
CITY MANAGER

May 10, 2018

Mr. Dmitry Ginzburg, P.E.  
District Engineer – Hollywood District  
State Water Resources Control Board – Division of Drinking Water  
500 North Central Avenue, Suite 500  
Glendale, CA 91203

Subject: System No. 1910073 - Monthly Report for the Cypress Water Production Facility (CWPF) for the period of April 1 through April 30, 2018.

Dear Mr. Ginzburg,

In accordance with the Department of Public Health temporary approval letter dated March 15, 2013 and Permit Amendment No. 1910073, I am submitting the following report for the Cypress Water Production Facility operations for the month of April 2018.

If you should have any questions or concerns, please contact me at 310-325-7110 Ext. 310.

Sincerely,

Mark Andersen  
Field Operations Manager

## A. BACKGROUND

On March 15, 2013, the City of Lomita received conditional approval from the Department of Public Health (DPH) to distribute blended water from the Cypress Water Production Facility (CWPF) Well No. 5 to the City's customers.

The CWPF is an iron-manganese greensand filtration treatment system designed to remove primarily iron, manganese, and color. The CWPF was recently modified to enable aeration and blending with Metropolitan Water District (MWD) imported water to address the aesthetic secondary issues of Total Dissolved Solids (TDS), Hardness (as Calcium Carbonate), and Taste/Odor.

The CWPF came online on April 1, 2013. The first week of operations from April 1 to April 5, 2013 was utilized for conducting routine startup activities. The distribution of blended water to the City's residents began on April 5, 2013.

## B. WELL PRODUCTION

The CWPF operated continuously during the month of April 2018 maintaining water levels inside the reservoir ranging from 7 feet to 10 feet. The average flow from Well No. 5 was 400 gpm and 534 gpm from MWD. The blend ratio for month was 43% Well water and 57% MWD water. See Table 1 below for production totals for the month of April 2018.

Table 1. Monthly Production Totals.

|                | Production for April 2018 |           |                         |
|----------------|---------------------------|-----------|-------------------------|
| Well No. 5     | 35.86                     | ac-ft     | 11,683,700 (gallons)    |
| MWD            | 47.30                     | ac-ft     | 15,414,000 (gallons)    |
| Combined Total | 83.16                     | ac-ft     | 27,097,700 (gallons)    |
| Daily          | 4.38                      | ac-ft/day | 1,426,195 (gallons/day) |

## C. OPERATIONAL INTERRUPTIONS

The CWPF was offline during the first 12 days of the month due to routine and preventive maintenance of equipment. No major planned operational interruptions are anticipated for the following month.

## D. SAMPLE LOCATIONS

Compliance monitoring is performed at the following sample locations: SP1, SP2, SP3, SP5, and SP6. The SP1 sample location is the raw well water sample location. The SP2 sample location is on the effluent side of the greensand filter (before ammonia injection or full chloramination). The SP3 sample location is downstream of the greensand filter after full chloramination and the static mixer before entering the reservoir. The SP5 sample location is the reservoir effluent sample location before entering the distribution system. The SP6 sample location is the MWD source sample location before blending occurs.

## **E. WATER QUALITY MONITORING**

All water quality monitoring analyses were performed by laboratories certified by the Department of Health's Environmental Laboratory Accreditation Branch (ELAB). The CWPF has been continuously monitored, maintained and inspected, per the CWPF Operations Monitoring and Maintenance Plan. A brief discussion of the laboratory and/or monitoring results is provided below. Refer to Appendix A for laboratory results.

### **E1. IRON, MANGANESE AND COLOR**

See Table 2 below for a summary of the results for the compliance monitoring at the three sample locations SP1 through SP3. Color for raw water (SP1) was at the MCL level. Iron and Manganese in the raw water (SP1) for the month were both above the MCL, respectively. Iron and Manganese levels before entering the reservoir (SP3) show non-detect, indicating the greensand filtration system remains highly effective.

### **E2. FREE AND TOTAL CHLORINE RESIDUALS**

Daily free chlorine residuals were monitored at SP2, SP3, SP4 and SP5. Daily total chlorine residuals were monitored at SP3, SP4 and SP5. Free chlorine and total chlorine residuals, at all respective sample points, were monitored using a combination of continuous chlorine analyzers and SCADA. See Table 3 below for a weekly summary of results.

### **E3. TOTAL DISSOLVED SOLIDS (TDS), ODOR, HARDNESS AND METHANE**

See Table 4 below for a summary of the results for the monitoring of Total Dissolved Solids (TDS), Odor (as measured by the Threshold Odor No. - T.O.N.), Total Hardness as Calcium Carbonate, and Methane levels in water at three sample locations SP1, SP5 and SP6.

#### **E3-1 TOTAL DISSOLVED SOLIDS (TDS)**

The sampling results indicate the TDS levels of the effluent blended water to be on average 646.7 mg/L. The TDS level of the effluent water meets the City's Water Quality Objective/Goal of 500 to 750 mg/L. The sampling results indicate the TDS levels in the raw water and MWD water source to be 820 mg/L and 630 mg/L, respectively.

#### **E3-2 HARDNESS**

The sampling results for the month indicate the hardness levels of the blended water to be on average 280 mg/L. This hardness level is within the City's Water Quality Objective/Goal of 180 to 250 mg/L; staff continues to monitor hardness levels at the CWPF effluent (SP5) and within the water distribution system. The City has maintained a consistent blend ratio to ensure acceptable hardness levels are met.

Staff continues to use an orthophosphate/polyphosphate additive to sequester calcium hardness. Orthophosphate/Polyphosphate is a food grade National Sanitation Foundation (NSF 60) approved additive which decreases iron tuberculation, diminishes calcium scale deposits, minimizes corrosion, reduces discoloration, reduces staining and mineral build-up resulting in fewer customer complaints.

### **E3-3 DISSOLVED METHANE (IN WATER)**

The methane levels in the CWPF effluent after aeration treatment remain negligible averaging 0.20 mg/L.

### **E3-4 METHANE (IN AIR)**

The methane levels in the reservoir headspace are monitored daily by staff using a handheld device. These readings have consistently read non-detect to low concentrations for methane in air. Available methane hand held monitoring instruments can only detect levels of 1% Lower Explosive Limit (LEL) or greater. The handheld methane readings during the month were below the 50,000 ppm LEL. See attached methane log for the month of April 2018 in Appendix B.

### **E3-5 ODOR**

The odor levels at the CWPF effluent averaged 2.0 units for the month.

## **E4. NITRIFICATION MONITORING**

Weekly nitrification sampling was performed during the month of April 2018 following the City's Nitrification Monitoring Plan. Refer to Appendix C for results.

## F. TABLES

Table 2. Monitoring Results for SP1, SP2, and SP3 Sample Locations.

| Date, week of | SP1, Well Raw Water Discharge |                 |                 |                |       |         |                | SP2, Combined Pressure Filter Effluent |                |         | SP3, After chloramination static mixer; reservoir entry |                 |                 |                |       |         |
|---------------|-------------------------------|-----------------|-----------------|----------------|-------|---------|----------------|--|----------------|---------|---|-----------------|-----------------|----------------|-------|---------|
|               | Iron, ug/L                    | *MCL = 300 ug/L | Manganese, ug/L | *MCL = 50 ug/L | Color | *MCL=15 | Total Coliform | Total Coliform                         | HPC, MPN/100mL | MCL=500 | Iron, mg/L  | *MCL = 300 ug/L | Manganese, mg/L | *MCL = 50 ug/L | Color | *MCL=15 |
| 4/4/2018      |                               |                 |                 |                |       |         |                |  |                |         | Offline   |                 |                 |                |       |         |
| 4/11/2018     | 220                           | 300             | 160             | 50             | 5     | 15      | A              | A                                      | ND             | 500     | ND  | 300             | ND              | 50             | ND    | 15      |
| 4/18/2018     |                               |                 |                 |                |       |         |                |  |                |         | ND  | 300             | ND              | 50             | 5     | 15      |
| 4/25/2018     |                               |                 |                 |                |       |         |                |  |                |         | 210   | 300             | 32              | 50             | ND    | 15      |

**Notes:**

Monthly- Orange; Weekly- Yellow

A – Absent

ND – Non Detect

\*Per the SWRCB Drinking Water “Chemicals and Contaminants in Drinking Water” Regulations

Table 3. Monitoring Results for Free and Total Chlorine at SP2, SP3, SP4 and SP5 Sample Locations.

| Date, week of | SP2     | SP3     |          |                       | SP4     |          |                       | SP5     |          |                       |
|---------------|---------|---------|----------|-----------------------|---------|----------|-----------------------|---------|----------|-----------------------|
|               | Free Cl | Free Cl | Total Cl | Total NH <sub>3</sub> | Free Cl | Total Cl | Total NH <sub>3</sub> | Free Cl | Total Cl | Total NH <sub>3</sub> |
| 4/4/2018      | Offline |         |          |                       |         |          |                       |         |          |                       |
| 4/11/2018     | 10.51   | 1.14    | 7.57     | 0.80                  | 0.45    | 5.16     | 0.68                  | 0.14    | 3.58     | 0.66                  |
| 4/18/2018     | 11.70   | 0.84    | 8.70     | 0.85                  | 0.77    | 5.69     | 0.72                  | 0.16    | 3.66     | 0.61                  |
| 4/25/2018     | 8.98    | 1.15    | 6.74     | 0.81                  | 0.61    | 4.64     | 0.73                  | 0.07    | 3.52     | 0.66                  |



Table 4. Monitoring Requirements and Frequencies for SP1, SP5, and SP6.

| Date, week of  | TDS, mg/L            |                 |                          |                      | T.O.N.                   |          | Hardness, mg/L       |                 |                          |                      | Methane (Water), mg/L |                          |
|----------------|----------------------|-----------------|--------------------------|----------------------|--------------------------|----------|----------------------|-----------------|--------------------------|----------------------|-----------------------|--------------------------|
|                | SP1 - Raw Well Water | SP6 - MWD Water | SP5 - Reservoir Effluent | Goal= 500 - 750 mg/L | SP5 - Reservoir Effluent | MCL = 3  | SP1 - Raw Well Water | SP6 - MWD Water | SP5 - Reservoir Effluent | Goal= 180 - 250 mg/L | SP1 - Raw Well Water  | SP5 - Reservoir Effluent |
| 4/4/2018       |                      |                 | Offline                  |                      | Offline                  |          |                      |                 |                          |                      |                       | Offline                  |
| 4/11/2018      | 820                  | 630             | 680                      | 500-750              | 2                        | 3        | 390                  | 270             | 280                      | 180-250              | 1.9                   | 0.16                     |
| 4/18/2018      |                      |                 | 630                      | 500-750              | 2                        | 3        |                      |                 |                          |                      |                       | 0.24                     |
| 4/25/2018      |                      |                 | 630                      | 500-750              | 2                        | 3        |                      |                 |                          |                      |                       | 0.20                     |
| <b>Average</b> |                      |                 | <b>646.7</b>             | 500-750              | <b>2</b>                 | <b>3</b> |                      |                 |                          |                      |                       | <b>0.20</b>              |

**Notes:**

Monthly- Orange; Weekly- Yellow  
 ppm – parts per million  
 mg/L – milligram per liter  
 T.O.N. - Threshold Odor Number  
 TDS - Total Dissolved Solids  
 Hardness - As total CaCO<sub>3</sub>  
 Methane (Water) - Methane dissolved in water



**Cypress Water Production Facility**  
**City of Lomita; System No. 1910073**

Notes: <sup>1</sup>Self-Imposed (SI) Goals: TDS Goal-500-750 ppm; Hardness as CaCO<sub>3</sub> Goal-180-250 ppm.

**\*\*\*This Report is due to DDW by the 10<sup>th</sup> of the following month.**

**Other Notes/Comments:** (1) See comments on the last column

## **APPENDIX A**

### LABORATORY RESULTS

# *Clinical Laboratory of San Bernardino, Inc.*



27 April 2018

Clinical Lab No.: 18D1052

Mark Andersen  
Lomita, City of  
24373 Walnut Avenue  
Lomita, CA 91717

Project Name: Standard Analysis  
Sub Project: CWPF Monthly Compliance Samples, 2nd Wk of April

Enclosed are the results of the analyses for samples received at the laboratory on 04/11/18 . Samples were received within temperature range, in correct containers and preservation.

Analyses were performed pursuant to client's chain of custody, within hold times, utilizing EPA or other ELAP approved methodologies.

I certify that the results are within compliance both technically and for completeness. Analytical results are attached to this letter. Please call if any additional information and or assistance are needed.

Thank you for choosing Clinical Laboratory of San Bernardino for your analytical needs.

Sincerely,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles  
Client Services Manager

# Clinical Laboratory of San Bernardino, Inc.



**Lomita, City of**  
24373 Walnut Avenue  
Lomita CA, 91717

Project: Standard Analysis  
Sub Project: CWP Monthly Compliance Samples, 2nd Wk of Apr  
Project Manager: Mark Andersen

Work Order: 18D1052  
Received: 04/11/18 15:15  
Reported: 04/27/18

## Raw Water Site #1

18D1052-01 (Water)

Sample Date: 04/11/18 9:08 Sampler: Patrick McCue

| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|

### Field Analyses

|                      |       |      |  |     |          |          |          |         |  |
|----------------------|-------|------|--|-----|----------|----------|----------|---------|--|
| Cl Res Total (Field) | Field | 0    |  | N/A | mg/L     | 04/11/18 | 04/11/18 | 1815123 |  |
| pH (Field)           | Field | 7.54 |  | N/A | pH Units | 04/11/18 | 04/11/18 | 1815123 |  |
| Temperature (Field)  | Field | 22.2 |  | N/A | °C       | 04/11/18 | 04/11/18 | 1815123 |  |

### Microbiology Analyses

|                |         |     |   |     |        |          |          |         |  |
|----------------|---------|-----|---|-----|--------|----------|----------|---------|--|
| Total Coliform | SM 9223 | A   |   | N/A | P/A    | 04/11/18 | 04/12/18 | 1815129 |  |
| E. Coli        | SM 9223 | A   |   | N/A | P/A    | 04/11/18 | 04/12/18 | 1815129 |  |
| Plate Count    | SM9215B | 160 | 1 | 500 | CFU/ml | 04/11/18 | 04/13/18 | 1815181 |  |

### General Physical Analyses

|                |           |     |     |    |             |          |          |         |  |
|----------------|-----------|-----|-----|----|-------------|----------|----------|---------|--|
| Apparent Color | SM 2120BM | 5.0 | 3.0 | 15 | Color Units | 04/11/18 | 04/11/18 | 1815124 |  |
|----------------|-----------|-----|-----|----|-------------|----------|----------|---------|--|

### General Chemical Analyses

|   |            |     |     |      |      |          |          |         |  |
|---|------------|-----|-----|------|------|----------|----------|---------|--|
| Hardness, Total (as CaCO <sub>3</sub> ) | Calculated | 390 | 9.1 | N/A  | mg/L | 04/19/18 | 04/19/18 | [CALC]  |  |
| Total Filterable Residue/TDS            | SM 2540C   | 820 | 5.0 | 1000 | mg/L | 04/13/18 | 04/17/18 | 1815156 |  |

### Metals

|                |           |     |     |     |      |          |          |         |  |
|----------------|-----------|-----|-----|-----|------|----------|----------|---------|--|
| Calcium (Ca)   | EPA 200.7 | 110 | 2.0 | N/A | mg/L | 04/19/18 | 04/19/18 | 1816102 |  |
| Iron (Fe)      | EPA 200.7 | 220 | 100 | 300 | ug/L | 04/13/18 | 04/13/18 | 1815169 |  |
| Magnesium (Mg) | EPA 200.7 | 32  | 1.0 | N/A | mg/L | 04/18/18 | 04/18/18 | 1816054 |  |
| Manganese (Mn) | EPA 200.7 | 160 | 20  | 50  | ug/L | 04/13/18 | 04/13/18 | 1815169 |  |

## Filter Effluent (Free Chlorine) Site #2

18D1052-03 (Water)

Sample Date: 04/11/18 9:05 Sampler: Patrick McCue

| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|

### Field Analyses

|                      |       |      |  |     |          |          |          |         |  |
|----------------------|-------|------|--|-----|----------|----------|----------|---------|--|
| Cl Res Total (Field) | Field | 16.6 |  | N/A | mg/L     | 04/11/18 | 04/11/18 | 1815123 |  |
| pH (Field)           | Field | 7.46 |  | N/A | pH Units | 04/11/18 | 04/11/18 | 1815123 |  |
| Temperature (Field)  | Field | 22.4 |  | N/A | °C       | 04/11/18 | 04/11/18 | 1815123 |  |

### Microbiology Analyses

|                |         |    |   |     |        |          |          |         |  |
|----------------|---------|----|---|-----|--------|----------|----------|---------|--|
| Total Coliform | SM 9223 | A  |   | N/A | P/A    | 04/11/18 | 04/12/18 | 1815129 |  |
| E. Coli        | SM 9223 | A  |   | N/A | P/A    | 04/11/18 | 04/12/18 | 1815129 |  |
| Plate Count    | SM9215B | ND | 1 | 500 | CFU/ml | 04/11/18 | 04/13/18 | 1815181 |  |

# Clinical Laboratory of San Bernardino, Inc.



**Lomita, City of**  
24373 Walnut Avenue  
Lomita CA, 91717

Project: Standard Analysis  
Sub Project: CWPf Monthly Compliance Samples, 2nd Wk of Apr  
Project Manager: Mark Andersen

Work Order: 18D1052  
Received: 04/11/18 15:15  
Reported: 04/27/18

**Filter Effluent (Total Chlorine) Site #3**      **18D1052-04 (Water)**      **Sample Date:** 04/11/18 8:20      **Sampler:** Patrick McCue

| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|

## Field Analyses

|                             |       |             |  |     |          |          |          |         |  |
|-----------------------------|-------|-------------|--|-----|----------|----------|----------|---------|--|
| <b>Cl Res Total (Field)</b> | Field | <b>17.8</b> |  | N/A | mg/L     | 04/11/18 | 04/11/18 | 1815123 |  |
| <b>pH (Field)</b>           | Field | <b>7.91</b> |  | N/A | pH Units | 04/11/18 | 04/11/18 | 1815123 |  |
| <b>Temperature (Field)</b>  | Field | <b>22.1</b> |  | N/A | °C       | 04/11/18 | 04/11/18 | 1815123 |  |

## General Physical Analyses

|                |           |    |     |    |             |          |          |         |  |
|----------------|-----------|----|-----|----|-------------|----------|----------|---------|--|
| Apparent Color | SM 2120BM | ND | 3.0 | 15 | Color Units | 04/11/18 | 04/11/18 | 1815124 |  |
|----------------|-----------|----|-----|----|-------------|----------|----------|---------|--|

## Metals

|                |           |    |     |     |      |          |          |         |  |
|----------------|-----------|----|-----|-----|------|----------|----------|---------|--|
| Iron (Fe)      | EPA 200.7 | ND | 100 | 300 | ug/L | 04/13/18 | 04/13/18 | 1815169 |  |
| Manganese (Mn) | EPA 200.7 | ND | 20  | 50  | ug/L | 04/13/18 | 04/13/18 | 1815169 |  |

**Zone #2 Site #6**      **18D1052-05 (Water)**      **Sample Date:** 04/11/18 8:25      **Sampler:** Patrick McCue

| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|

## Field Analyses

|                             |       |             |  |     |          |          |          |         |  |
|-----------------------------|-------|-------------|--|-----|----------|----------|----------|---------|--|
| <b>Cl Res Total (Field)</b> | Field | <b>2.16</b> |  | N/A | mg/L     | 04/11/18 | 04/11/18 | 1815123 |  |
| <b>pH (Field)</b>           | Field | <b>8.13</b> |  | N/A | pH Units | 04/11/18 | 04/11/18 | 1815123 |  |
| <b>Temperature (Field)</b>  | Field | <b>17.9</b> |  | N/A | °C       | 04/11/18 | 04/11/18 | 1815123 |  |

## General Chemical Analyses

|                                     |            |            |     |      |      |          |          |         |  |
|-------------------------------------|------------|------------|-----|------|------|----------|----------|---------|--|
| <b>Hardness, Total (as CaCO3)</b>   | Calculated | <b>270</b> | 6.6 | N/A  | mg/L | 04/18/18 | 04/18/18 | [CALC]  |  |
| <b>Total Filterable Residue/TDS</b> | SM 2540C   | <b>630</b> | 5.0 | 1000 | mg/L | 04/13/18 | 04/17/18 | 1815156 |  |

## Metals

|                       |           |           |     |     |      |          |          |         |  |
|-----------------------|-----------|-----------|-----|-----|------|----------|----------|---------|--|
| <b>Calcium (Ca)</b>   | EPA 200.7 | <b>68</b> | 1.0 | N/A | mg/L | 04/18/18 | 04/18/18 | 1816054 |  |
| <b>Magnesium (Mg)</b> | EPA 200.7 | <b>25</b> | 1.0 | N/A | mg/L | 04/18/18 | 04/18/18 | 1816054 |  |

# Clinical Laboratory of San Bernardino, Inc.



**Lomita, City of**  
24373 Walnut Avenue  
Lomita CA, 91717

Project: Standard Analysis  
Sub Project: CWPf Monthly Compliance Samples, 2nd Wk of Apr  
Project Manager: Mark Andersen

Work Order: 18D1052  
Received: 04/11/18 15:15  
Reported: 04/27/18

**Reservoir Effluent Site #5**      **18D1052-06 (Water)**      **Sample Date:** 04/11/18 9:10      **Sampler:** Patrick McCue

| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|

## Field Analyses

|                             |       |             |  |     |          |          |          |         |  |
|-----------------------------|-------|-------------|--|-----|----------|----------|----------|---------|--|
| <b>Cl Res Total (Field)</b> | Field | <b>3.08</b> |  | N/A | mg/L     | 04/11/18 | 04/11/18 | 1815123 |  |
| <b>pH (Field)</b>           | Field | <b>8.06</b> |  | N/A | pH Units | 04/11/18 | 04/11/18 | 1815123 |  |
| <b>Temperature (Field)</b>  | Field | <b>19.8</b> |  | N/A | °C       | 04/11/18 | 04/11/18 | 1815123 |  |

## Microbiology Analyses

|                |         |    |   |     |        |          |          |         |  |
|----------------|---------|----|---|-----|--------|----------|----------|---------|--|
| Total Coliform | SM 9223 | A  |   | N/A | P/A    | 04/11/18 | 04/12/18 | 1815129 |  |
| E. Coli        | SM 9223 | A  |   | N/A | P/A    | 04/11/18 | 04/12/18 | 1815129 |  |
| Plate Count    | SM9215B | ND | 1 | 500 | CFU/ml | 04/11/18 | 04/13/18 | 1815181 |  |

## General Physical Analyses

|                       |             |          |   |   |     |          |          |         |  |
|-----------------------|-------------|----------|---|---|-----|----------|----------|---------|--|
| <b>Odor Threshold</b> | EPA 140.1-M | <b>2</b> | 1 | 3 | TON | 04/11/18 | 04/11/18 | 1815124 |  |
|-----------------------|-------------|----------|---|---|-----|----------|----------|---------|--|

## General Chemical Analyses

|                                     |            |            |      |      |      |          |          |         |  |
|-------------------------------------|------------|------------|------|------|------|----------|----------|---------|--|
| <b>Hardness, Total (as CaCO3)</b>   | Calculated | <b>280</b> | 6.6  | N/A  | mg/L | 04/18/18 | 04/18/18 | [CALC]  |  |
| Nitrate as N (NO3-N)                | EPA 300.0  | ND         | 0.40 | 10   | mg/L | 04/12/18 | 04/12/18 | 1815119 |  |
| <b>Total Filterable Residue/TDS</b> | SM 2540C   | <b>680</b> | 5.0  | 1000 | mg/L | 04/13/18 | 04/17/18 | 1815156 |  |

## Metals

|                       |           |           |     |     |      |          |          |         |  |
|-----------------------|-----------|-----------|-----|-----|------|----------|----------|---------|--|
| <b>Calcium (Ca)</b>   | EPA 200.7 | <b>72</b> | 1.0 | N/A | mg/L | 04/18/18 | 04/18/18 | 1816054 |  |
| <b>Magnesium (Mg)</b> | EPA 200.7 | <b>25</b> | 1.0 | N/A | mg/L | 04/18/18 | 04/18/18 | 1816054 |  |

ND      Analyte NOT DETECTED at or above the reporting limit



## CALIFORNIA LABORATORY SERVICES

*Committed. Responsive. Flexible.*

April 20, 2018

**CLS Work Order #: 18D0757**

**COC #:**

Stu Styles

Clinical Lab of San Bernardino

21881 Barton Road

Grand Terrace, CA 92324

**Project Name: 18D1052**

Enclosed are the results of analyses for samples received by the laboratory on 04/13/18 09:50. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.  
Laboratory Director

CA SWRCB ELAP Accreditation/Registration number 1233





**CALIFORNIA LABORATORY SERVICES**  
*Committed. Responsive. Flexible.*

04/20/18 11:59

Clinical Lab of San Bernardino  
21881 Barton Road  
Grand Terrace, CA 92324

Project: 18D1052  
Project Number: [none]  
Project Manager: Stu Styles

**CLS Work Order #: 18D0757**  
COC #:

**Conventional Chemistry Parameters by APHA/EPA Methods**

| Analyte  | Result    | MDL | Reporting<br>Limit | Units | Dilution | Batch   | Prepared | Analyzed | Method               | Notes |
|--|-----------|-----|--------------------|-------|----------|---------|----------|----------|----------------------|-------|
| <b>Crystallized Ammonia at injection point / 18D1052-02 (18D0757-01) Soil    Sampled: 04/04/18 11:00    Received: 04/13/18 09:50</b> |           |     |                    |       |          |         |          |          |                      |       |
| <b>Ammonia as N</b>  | <b>15</b> | 8.2 | 10                 | mg/kg | 1        | 1803164 | 04/17/18 | 04/17/18 | SM4500-NH3F-<br>1997 |       |



**CALIFORNIA LABORATORY SERVICES**  
*Committed. Responsive. Flexible.*

04/20/18 11:59

Clinical Lab of San Bernardino  
21881 Barton Road  
Grand Terrace, CA 92324

Project: 18D1052  
Project Number: [none]  
Project Manager: Stu Styles

**CLS Work Order #: 18D0757**  
COC #:

**Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control**

| Analyte                                    | Result | MDL | Reporting Limit   | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|--|--------|-----|---|-------|-------------|---------------|------|-------------|-----|-----------|-------|
| <b>Batch 1803164 - General Preparation</b> |        |     |   |       |             |               |      |             |     |           |       |
| <b>Blank (1803164-BLK1)</b>                |        |     | Prepared & Analyzed: 04/17/18                           |       |             |               |      |             |     |           |       |
| Ammonia as N                               | ND     |     | 10  | mg/kg |             |               |      |             |     |           |       |
| <b>LCS (1803164-BS1)</b>                   |        |     | Prepared & Analyzed: 04/17/18                           |       |             |               |      |             |     |           |       |
| Ammonia as N                               | 106    |     | 10  | mg/kg | 125         |               | 85   | 80-120      |     |           |       |
| <b>LCS Dup (1803164-BSD1)</b>              |        |     | Prepared & Analyzed: 04/17/18                           |       |             |               |      |             |     |           |       |
| Ammonia as N                               | 106    |     | 10  | mg/kg | 125         |               | 84   | 80-120      | 0.7 | 25        |       |
| <b>Matrix Spike (1803164-MS1)</b>          |        |     | <b>Source: 18D0757-01</b> Prepared & Analyzed: 04/17/18 |       |             |               |      |             |     |           |       |
| Ammonia as N                               | 107    |     | 10  | mg/kg | 125         | 15.3          | 73   | 75-125      |     |           | QM-7  |
| <b>Matrix Spike Dup (1803164-MSD1)</b>     |        |     | <b>Source: 18D0757-01</b> Prepared & Analyzed: 04/17/18 |       |             |               |      |             |     |           |       |
| Ammonia as N                               | 117    |     | 10  | mg/kg | 125         | 15.3          | 82   | 75-125      | 9   | 30        |       |



## CALIFORNIA LABORATORY SERVICES

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04/20/18 11:59

Clinical Lab of San Bernardino  
21881 Barton Road  
Grand Terrace, CA 92324

Project: 18D1052  
Project Number: [none]  
Project Manager: Stu Styles

**CLS Work Order #: 18D0757**  
COC #:

### Notes and Definitions

|      |   |
|------|---|
| QM-7 | The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery. |
| DET  | Analyte DETECTED  |
| ND   | Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)                                       |
| NR   | Not Reported  |
| dry  | Sample results reported on a dry weight basis   |
| RPD  | Relative Percent Difference   |

**This is a “MDL Report”, thus if the report denotes an “ND” for a particular analyte, it should be noted that the analyte was not detected at or above the MDL.**

19 00757

## SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino  
18D1052

## SENDING LABORATORY:

Clinical Laboratory of San Bernardino  
21881 Barton Road  
Grand Terrace, CA 92313  
Phone: 909.825.7693  
Fax: 909.825.7696  
Project Manager: Stu Styles

## RECEIVING LABORATORY:

CLS Labs  
3249 Fitzgerald Rd.  
Rancho Cordova, CA 95742  
Phone: (916) 638-7301  
Fax: (916) 638-4510

Please email results to Project Manager: Stu Styles.

[ ] glaubig@clinical-lab.com [x] styles@clinical-lab.com [ ] nelson@clinical-lab.com

California EDT transfer those samples with PS codes provided [ ] Yes [x] No

Water Trax Upload Client: [ ] Yes [x] No

Turn Around Time [ ] 10 Days [x] 5 Days [ ] Other \_\_\_ Days

Subcontract Comments:

## Analysis

## Comments

Sample ID: Crystallized Ammonia at injection point / 18D105; Sampled: 04/04/18 11:00 PS Code:  
Solid

WTX ID:

Sub-Contract Analysis - Special  
Ammonia-N (Solid) EPA 350.1

Sulfate Solid EPA 300.0

Containers Supplied:

Plastic - Misc (A)

Client suspects Ammonium Sulfate

Released By: [Signature] 4/12/18 Date / Time

Received By: [Signature] 04/12/18 11:00 Date / Time

Released By: [Signature] 04/12/18 14:30 Date / Time

Received By: [Signature] 4/13/18 0950 Date / Time

(7.0)

**CLS LABS**  
**SAMPLE RECEIVING EXCEPTION REPORTS**

CLS Labs Job # 18D757

Problem discovered by: MATT YUST

Date: 4/13/18

**Nature of problem**

METHOD OF ANALYSIS REQUESTED

NO LONGER AVAILABLE.

Client contacted? Yes X No      Spoke With: SN STILES

By whom: MATT YUST Date: 4/13/18 Time: 10:00 HRS

**Client instructions:**

USE STANDARD METHOD TO ANALYZE

AMMONIA.

**Resolution of problem:**

LOGGED ANALYSIS IN ELEMENT A,

STANDARD METHOD: AMMONIA - SM4500-NH3F-1997



April 20, 2018

Clinical Laboratory of San Bernardino  
ATTN: Stu Styles  
21881 Barton Rd.  
Grand Terrace, CA 92313



LA Cert #04140  
EPA Methods TO3, TO14A, TO15, 25C/3C,  
RSK-175

TX Cert T104704450-14-6  
EPA Methods TO14A, TO15

UT Cert CA0133332015-3  
EPA Methods TO3, TO14A, TO15, RSK-175

### LABORATORY TEST RESULTS

Project Reference: 18D1052  
Lab Number: J041301-01/02

Enclosed are results for sample(s) received 4/13/18 by Air Technology Laboratories. Samples were received intact and properly chilled. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

#### Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson  
Operations Manager  
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

**SUBCONTRACT ORDER**  
**Clinical Laboratory of San Bernardino**  
**18D1052**

*J041301-01/02*

**SENDING LABORATORY:**

Clinical Laboratory of San Bernardino  
21881 Barton Road  
Grand Terrace, CA 92313  
Phone: 909.825.7693  
Fax: 909.825.7696  
Project Manager: Stu Styles

**RECEIVING LABORATORY:**

Air Technology Labs  
18501 East Gale Avenue Suite 130  
City of Industry, CA 91748  
Phone : (626) 964-4032  
Fax:

Please email results to Project Manager: Stu Styles

[ ] glaubig@clinical-lab.com [ ] styles@clinical-lab.com [ ] nelson@clinical-lab.com

California EDT transfer those samples with PS codes provided [ ] Yes [ ] No

Water Trax Upload Client: [ ] Yes [ ] No

Turn Around Time [ ] 10 Days [ ] 5 Days [ ] Other \_\_\_ Days

Subcontract Comments:

**Analysis**

**Comments**

**Sample ID: Raw Water Site #1 / 18D1052-01**

**Sampled: 04/11/18 09:08 PS Code:**  
**Water**

**WTX ID:**

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

**Sample ID: Reservoir Effluent Site #5 / 18D1052-06**

**Sampled: 04/11/18 09:10 PS Code:**  
**Water**

**WTX ID:**

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

*2°C*

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

*[Signature]*  
*4/13/18 938*

*[Signature]* *4/13/18 845*  
*Don Perry* *4/17/18 0938*



Client: Clinical Laboratory  
Attn: Stu Styles  
Project Name: NA  
Project No.: 18D1052  
Date Received: 04/13/18  
Matrix: Water  
Reporting Units: mg/L

| RSK175              |                                      |            |   |            |  |  |  |  |
|---------------------|--------------------------------------|------------|---|------------|--|--|--|--|
| Lab No.:            | J041301-01                           |            | J041301-02                                    |            |  |  |  |  |
| Client Sample I.D.: | Raw Water<br>Site #1<br>/ 18D1052-01 |            | Reservoir Effluent<br>Site #5<br>/ 18D1052-06 |            |  |  |  |  |
| Date/Time Sampled:  | 4/11/18 9:08                         |            | 4/11/18 9:10                                  |            |  |  |  |  |
| Date/Time Analyzed: | 4/19/18 10:19                        |            | 4/19/18 10:05                                 |            |  |  |  |  |
| QC Batch No.:       | 180419GC8A1                          |            | 180419GC8A1                                   |            |  |  |  |  |
| Analyst Initials:   | AS                                   |            | AS  |            |  |  |  |  |
| Dilution Factor:    | 1.0                                  |            | 1.0   |            |  |  |  |  |
| ANALYTE             | Result<br>mg/L                       | RL<br>mg/L | Result<br>mg/L                                | RL<br>mg/L |  |  |  |  |
| Methane             | 1.9                                  | 0.0010     | 0.16  | 0.0010     |  |  |  |  |
|                     |                                      |            |   |            |  |  |  |  |

ND = Not Detected (below RL)  
RL = Reporting Limit

Reviewed/Approved By: Mark Johnson  
Mark Johnson  
Operations Manager

Date 4/20/18

The cover letter is an integral part of this analytical report



QC Batch No.: 180419GC8A1  
Matrix: Water  
Units: mg/L

## QC for Dissolved Gases by EPA Procedure RSKSOP-175

|                     |        |              |         |              |          |              |          |      |          |
|---------------------|--------|--------------|---------|--------------|----------|--------------|----------|------|----------|
| Lab No.:            |        | Method Blank |         | LCS          |          | LCSD         |          |      |          |
| Date/Time Analyzed: |        | 4/19/18 9:50 |         | 4/19/18 9:21 |          | 4/19/18 9:36 |          |      |          |
| Analyst Initials:   |        | AS           |         | AS           |          | AS           |          |      |          |
| Datafile:           |        | 19apr003     |         | 19apr001     |          | 19apr002     |          |      |          |
| Dilution Factor:    |        | 1.0          |         | 1.0          |          | 1.0          |          |      |          |
| ANALYTE             | PQL    | RL           | Results | % Rec.       | Criteria | % Rec.       | Criteria | %RPD | Criteria |
| Methane             | 0.0010 | 0.0010       | ND      | 120          | 70-130%  | 123          | 70-130%  | 2.3  | <30      |

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: \_\_\_\_\_

  
Mark J. Johnson  
Operations Manager

Date: \_\_\_\_\_

  
4/20/18

The cover letter is an integral part of this analytical report.



**AirTECHNOLOGY Laboratories, Inc.**

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832



## CALIFORNIA LABORATORY SERVICES

*Committed. Responsive. Flexible.*

April 27, 2018

**CLS Work Order #: 18D1209**

**COC #: GREEN**

Stu Styles

Clinical Lab of San Bernardino

21881 Barton Road

Grand Terrace, CA 92324

**Project Name: 18D1052**

Enclosed are the results of analyses for samples received by the laboratory on 04/23/18 11:51. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

James Liang, Ph.D.

Laboratory Director

CA SWRCB ELAP Accreditation/Registration number 1233

1801209

# CHANGE OF STATUS

Work Order # 18D0757

New Work Order ☒ Revise Existing Work Order ☐

Project Name: 18D1052

Date Sample(s) Were Received: 4-13-18 Original Date 4-20-18

\_\_\_\_\_ of \_\_\_\_\_ called/emailed  
(Client Contacted) (Company)

On \_\_\_\_\_ at \_\_\_\_\_  
(Date) (Time)

... and requested the following:

Please perform Sulfate analysis.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Turnaround time requested for additional work: \_\_\_\_\_

[Signature]  
(Signature)

4  
4-23-18  
(Date)

Updated lab job database and file folder by: \_\_\_\_\_

[Signature]

4/23/18 1229

Cc: \_\_\_\_\_



## CALIFORNIA LABORATORY SERVICES

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Page 2 of 4

04/27/18 10:14

Clinical Lab of San Bernardino  
21881 Barton Road  
Grand Terrace, CA 92324

Project: 18D1052  
Project Number: [none]  
Project Manager: Stu Styles

**CLS Work Order #: 18D1209**  
COC #: GREEN

### Conventional Chemistry Parameters by APHA/EPA Methods

| Analyte   | Result    | Reporting<br>Limit | Units        | Dilution | Batch          | Prepared        | Analyzed        | Method           | Notes |
|---|-----------|--------------------|--------------|----------|----------------|-----------------|-----------------|------------------|-------|
| <b>Crystalized Ammonia at injection point / 18D1052-02 (18D1209-01) Soil    Sampled: 04/04/18 11:00    Received: 04/23/18 11:51</b> |           |                    |              |          |                |                 |                 |                  |       |
| <b>Sulfate as SO4</b>   | <b>72</b> | <b>5.0</b>         | <b>mg/kg</b> | <b>1</b> | <b>1803380</b> | <b>04/24/18</b> | <b>04/24/18</b> | <b>EPA 300.0</b> |       |



## CALIFORNIA LABORATORY SERVICES

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Page 3 of 4

04/27/18 10:14

Clinical Lab of San Bernardino  
21881 Barton Road  
Grand Terrace, CA 92324

Project: 18D1052  
Project Number: [none]  
Project Manager: Stu Styles

CLS Work Order #: 18D1209  
COC #: GREEN

### Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

| Analyte                                | Result | Reporting Limit | Units | Spike Level                   | Source Result | %REC                          | %REC Limits | RPD  | RPD Limit | Notes |
|--|--------|-----------------|-------|-------------------------------|---------------|-------------------------------|-------------|------|-----------|-------|
| <b>Batch 1803380 - General Prep</b>    |        |                 |       |                               |               |                               |             |      |           |       |
| <b>Blank (1803380-BLK1)</b>            |        |                 |       | Prepared & Analyzed: 04/24/18 |               |                               |             |      |           |       |
| Sulfate as SO <sub>4</sub>             | ND     | 5.0             | mg/kg |                               |               |                               |             |      |           |       |
| <b>LCS (1803380-BS1)</b>               |        |                 |       | Prepared & Analyzed: 04/24/18 |               |                               |             |      |           |       |
| Sulfate as SO <sub>4</sub>             | 44.3   | 5.0             | mg/kg | 50.0                          |               | 89                            | 75-125      |      |           |       |
| <b>LCS Dup (1803380-BSD1)</b>          |        |                 |       | Prepared & Analyzed: 04/24/18 |               |                               |             |      |           |       |
| Sulfate as SO <sub>4</sub>             | 44.6   | 5.0             | mg/kg | 50.0                          |               | 89                            | 75-125      | 0.7  | 25        |       |
| <b>Matrix Spike (1803380-MS1)</b>      |        |                 |       | <b>Source: 18D1209-01</b>     |               | Prepared & Analyzed: 04/24/18 |             |      |           |       |
| Sulfate as SO <sub>4</sub>             | 121    | 5.0             | mg/kg | 50.0                          | 72.3          | 98                            | 75-125      |      |           |       |
| <b>Matrix Spike Dup (1803380-MSD1)</b> |        |                 |       | <b>Source: 18D1209-01</b>     |               | Prepared & Analyzed: 04/24/18 |             |      |           |       |
| Sulfate as SO <sub>4</sub>             | 121    | 5.0             | mg/kg | 50.0                          | 72.3          | 98                            | 75-125      | 0.05 | 30        |       |



## CALIFORNIA LABORATORY SERVICES

*Committed. Responsive. Flexible.*

Page 4 of 4

04/27/18 10:14

Clinical Lab of San Bernardino  
21881 Barton Road  
Grand Terrace, CA 92324

Project: 18D1052  
Project Number: [none]  
Project Manager: Stu Styles

**CLS Work Order #: 18D1209**  
COC #: GREEN

### Notes and Definitions

|     |   |
|-----|---|
| DET | Analyte DETECTED  |
| ND  | Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified) |
| NR  | Not Reported  |
| dry | Sample results reported on a dry weight basis   |
| RPD | Relative Percent Difference   |



|  |         |   |  |  |      |                    |       |                      |                |                        |                  |         |                |                           |         |       |      |                          |  |
|--|---------|---|--|--|------|--------------------|-------|----------------------|----------------|------------------------|------------------|---------|----------------|---------------------------|---------|-------|------|--------------------------|--|
| Client   |         | City of Lomita  |  | System Number  |      | Analysis Requested |       |                      |                |                        |                  |         |                |                           |         |       |      |                          |  |
| Address  |         | 24373 Walnut Avenue<br>Lomita, CA 91717                     |  | 1910073  |      |                    |       |                      |                |                        |                  |         |                |                           |         |       |      |                          |  |
| Phone #  |         | (310) 325-9830  |  | Destination Laboratory   |      |                    |       |                      |                |                        |                  |         |                |                           |         |       |      |                          |  |
| Fax #  |         | (310) 325-3627  |  | [X] Clinical Laboratory  |      |                    |       |                      |                |                        |                  |         |                |                           |         |       |      |                          |  |
| Project  |         | Standard Analysis   |  | RWQCB Compliance   |      |                    |       |                      |                |                        |                  |         |                |                           |         |       |      |                          |  |
| Sub Project  |         | CWPF Monthly Compliance Samples;<br>2nd week of April, 2018 |  | YES  |      |                    |       |                      |                |                        |                  |         |                |                           |         |       |      |                          |  |
| Comments   |         |   |  | ELAP #   |      |                    |       |                      |                |                        |                  |         |                |                           |         |       |      |                          |  |
| Sampled by   |         | Patrick McCue   |  | 1088   |      |                    |       |                      |                |                        |                  |         |                |                           |         |       |      |                          |  |
| Date   | Time    | Sample Identification                                       |  | Matrix   | Type | Preserv            | Temp. | pH                   | Total Chlorine | Total Dissolved Solids | Iron & Manganese | E. Coli | Total Coliform | Heterotrophic Plate Count | Nitrate | Color | Odor | Methane (WATER) (RSK175) | Hardness   |
| 4/11/2018  | 0815    | Raw Water Site #1   |  | GW   | IW   | N/A                | 22.2° | 7.54                 | 0              | X                      | X                |         |                |                           |         | X     |      |                          |  |
| 4/11/2018  | 0908    | Raw Water Site #1   |  | GW   | IW   | 1, 2, 7            |       |                      |                |                        |                  | X       | X              | X                         |         |       |      | X                        | X  |
| 4/4/2018   | 11:00am | Crystallized Ammonia at injection point                     |  |  |      | N/A                |       |                      |                |                        |                  |         |                |                           |         |       |      |                          | Analyze for NH <sub>3</sub> , SO <sub>4</sub> , etc. |
| 4/11/2018  | 0905    | Filter Effluent (Free Chlorine) Site#2                      |  | DW   | IW   | 1, 7               | 22.4° | 7.46                 | 16.6           |                        |                  | X       | X              | X                         |         |       |      |                          |  |
| 4/11/2018  | 0820    | Filter Effluent (Total Chlorine) Site#3                     |  | DW   | IW   | N/A                | 22.1° | 7.91                 | 17.8           |                        | X                |         |                |                           |         | X     |      |                          |  |
| 4/11/2018  | 0825    | Zone #2 Site #6   |  | DW   | ID   | N/A                | 17.9° | 8.13                 | 2.16           | X                      |                  |         |                |                           |         |       |      | X                        |  |
| 4/11/2018  | 0910    | Reservoir Effluent Site #5                                  |  | DW   | ID   | 1, 7               | 19.8° | 8.06                 | 3.08           |                        |                  | X       | X              | X                         |         |       |      |                          |  |
| 4/11/2018  | 0900    | Reservoir Effluent Site #5                                  |  | DW   | ID   | N/A                |       |                      |                | X                      |                  |         |                |                           | X       | X     |      | X                        |  |
| 4/11/2018  | 0900    | Reservoir Effluent Site #5                                  |  | DW   | ID   | 2, 7               |       |                      |                |                        |                  |         |                |                           |         |       |      | X                        |  |
| Preservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCl (3) HNO <sub>3</sub> (4) NH <sub>4</sub> Cl<br>(5) H <sub>2</sub> SO <sub>4</sub> (6) Na <sub>2</sub> SO <sub>3</sub> (7) Cold (8) Other: |         |   |  | Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air<br>3-Replacement, 4-Special W-Well D- Dist. |      |                    |       |                      |                |                        |                  |         |                |                           |         |       |      |                          |  |
| Relinquished By (Sign)   |         | Print Name / Company  |  | Date / Time  |      | Received By (Sign) |       | Print Name / Company |                |                        |                  |         |                |                           |         |       |      |                          |  |
| Patrick McCue  |         | City of Lomita, CA  |  | 4/11/2018  |      | J. L. L. / 1:00    |       | J. L. L. / 1:00      |                |                        |                  |         |                |                           |         |       |      |                          |  |
| Patrick McCue  |         | J. L. L. / 3:15   |  | 4/11/2018  |      | J. L. L. / 3:15    |       | J. L. L. / 3:15      |                |                        |                  |         |                |                           |         |       |      |                          |  |
| Comments:  |         | J. L. L. / 3:15   |  | 4/11/2018  |      | J. L. L. / 3:15    |       | J. L. L. / 3:15      |                |                        |                  |         |                |                           |         |       |      |                          |  |
| Shipped Via  |         | Fed X   |  | Golden State   |      | UPS                |       | Client               |                | Other                  |                  | Intact  |                | Custody seals Temp        |         | 6.9   |      | ( ) F                    |  |
| Page 1 of 1  |         |   |  |  |      |                    |       |                      |                |                        |                  |         |                |                           |         |       |      |                          |  |

# *Clinical Laboratory of San Bernardino, Inc.*



02 May 2018

Clinical Lab No.: 18D1588

Mark Andersen  
Lomita, City of  
24373 Walnut Avenue  
Lomita, CA 91717

Project Name: Standard Analysis  
Sub Project: CWPF 3rd Week of April, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 04/18/18 . Samples were received within temperature range, in correct containers and preservation.

Analyses were performed pursuant to client's chain of custody, within hold times, utilizing EPA or other ELAP approved methodologies.

I certify that the results are within compliance both technically and for completeness. Analytical results are attached to this letter. Please call if any additional information and or assistance are needed.

Thank you for choosing Clinical Laboratory of San Bernardino for your analytical needs.

Sincerely,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles  
Client Services Manager

# Clinical Laboratory of San Bernardino, Inc.



**Lomita, City of**  
24373 Walnut Avenue  
Lomita CA, 91717

Project: Standard Analysis  
Sub Project: CWP 3rd Week of April, 2018 Compliance Sampling  
Project Manager: Mark Andersen

Work Order: 18D1588  
Received: 04/18/18 15:30  
Reported: 05/02/18

**Reservoir Influent Site #3** **18D1588-01 (Water)** **Sample Date:** 04/18/18 7:20 **Sampler:** Patrick McCue

| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|

## Field Analyses

|                             |       |             |  |     |          |          |          |         |  |
|-----------------------------|-------|-------------|--|-----|----------|----------|----------|---------|--|
| <b>Cl Res Total (Field)</b> | Field | <b>8.8</b>  |  | N/A | mg/L     | 04/18/18 | 04/18/18 | 1816101 |  |
| <b>pH (Field)</b>           | Field | <b>7.64</b> |  | N/A | pH Units | 04/18/18 | 04/18/18 | 1816101 |  |
| <b>Temperature (Field)</b>  | Field | <b>20.6</b> |  | N/A | °C       | 04/18/18 | 04/18/18 | 1816101 |  |

## General Physical Analyses

|                       |           |            |     |    |             |          |          |         |  |
|-----------------------|-----------|------------|-----|----|-------------|----------|----------|---------|--|
| <b>Apparent Color</b> | SM 2120BM | <b>5.0</b> | 3.0 | 15 | Color Units | 04/18/18 | 04/18/18 | 1816123 |  |
|-----------------------|-----------|------------|-----|----|-------------|----------|----------|---------|--|

## Metals

|                |           |    |     |     |      |          |          |         |  |
|----------------|-----------|----|-----|-----|------|----------|----------|---------|--|
| Iron (Fe)      | EPA 200.7 | ND | 100 | 300 | ug/L | 04/23/18 | 04/23/18 | 1817015 |  |
| Manganese (Mn) | EPA 200.7 | ND | 20  | 50  | ug/L | 04/23/18 | 04/23/18 | 1817015 |  |

**Reservoir Effluent Site #5** **18D1588-02 (Water)** **Sample Date:** 04/18/18 7:30 **Sampler:** Patrick McCue

| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|

## Field Analyses

|                             |       |             |  |     |          |          |          |         |  |
|-----------------------------|-------|-------------|--|-----|----------|----------|----------|---------|--|
| <b>Cl Res Total (Field)</b> | Field | <b>3.57</b> |  | N/A | mg/L     | 04/18/18 | 04/18/18 | 1816101 |  |
| <b>pH (Field)</b>           | Field | <b>8.01</b> |  | N/A | pH Units | 04/18/18 | 04/18/18 | 1816101 |  |
| <b>Temperature (Field)</b>  | Field | <b>19.3</b> |  | N/A | °C       | 04/18/18 | 04/18/18 | 1816101 |  |

## Microbiology Analyses

|                |         |    |   |     |        |          |          |         |       |
|----------------|---------|----|---|-----|--------|----------|----------|---------|-------|
| Total Coliform | SM 9223 | A  |   | N/A | P/A    | 04/18/18 | 04/19/18 | 1816124 |       |
| E. Coli        | SM 9223 | A  |   | N/A | P/A    | 04/18/18 | 04/19/18 | 1816124 |       |
| Plate Count    | SM9215B | ND | 1 | 500 | CFU/ml | 04/18/18 | 04/20/18 | 1816173 | HT-08 |

## General Physical Analyses

|                       |             |          |     |    |             |          |          |         |  |
|-----------------------|-------------|----------|-----|----|-------------|----------|----------|---------|--|
| <b>Apparent Color</b> | SM 2120BM   | ND       | 3.0 | 15 | Color Units | 04/18/18 | 04/18/18 | 1816123 |  |
| <b>Odor Threshold</b> | EPA 140.1-M | <b>2</b> | 1   | 3  | TON         | 04/18/18 | 04/18/18 | 1816123 |  |

## General Chemical Analyses

|                                     |           |            |      |      |      |          |          |         |  |
|-------------------------------------|-----------|------------|------|------|------|----------|----------|---------|--|
| Nitrate as N (NO3-N)                | EPA 300.0 | ND         | 0.40 | 10   | mg/L | 04/18/18 | 04/19/18 | 1816072 |  |
| <b>Total Filterable Residue/TDS</b> | SM 2540C  | <b>630</b> | 5.0  | 1000 | mg/L | 04/25/18 | 04/27/18 | 1817091 |  |

HT-08 Analysis performed outside of recommended 8 hour hold time but within required 24 hour hold time.

ND Analyte NOT DETECTED at or above the reporting limit



April 26, 2018

Clinical Laboratory of San Bernardino  
ATTN: Stu Styles  
21881 Barton Rd.  
Grand Terrace, CA 92313



LA Cert #04140  
EPA Methods TO3, TO14A, TO15, 25C/3C,  
RSK-175

TX Cert T104704450-14-6  
EPA Methods TO14A, TO15

UT Cert CA0133332015-3  
EPA Methods TO3, TO14A, TO15, RSK-175

### LABORATORY TEST RESULTS

Project Reference: 18D1588  
Lab Number: J041912-01

Enclosed are results for sample(s) received 4/19/18 by Air Technology Laboratories. Samples were received intact and properly chilled. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

#### Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson  
Operations Manager  
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

**SUBCONTRACT ORDER**  
**Clinical Laboratory of San Bernardino**  
**18D1588**

J041912-01

**SENDING LABORATORY:**

Clinical Laboratory of San Bernardino  
21881 Barton Road  
Grand Terrace, CA 92313  
Phone: 909.825.7693  
Fax: 909.825.7696  
Project Manager: Stu Styles

**RECEIVING LABORATORY:**

Air Technology Labs  
18501 East Gale Avenue Suite 130  
City of Industry, CA 91748  
Phone : (626) 964-4032  
Fax:

Please email results to Project Manager: Stu Styles

[ ] glaubig@clinical-lab.com [x] styles@clinical-lab.com [ ] nelson@clinical-lab.com

California EDT transfer those samples with PS codes provided [ ] Yes [x] No

Water Trax Upload Client: \_\_\_\_\_ [ ] Yes [x] No

Turn Around Time [ ] 10 Days [x] 5 Days [ ] Other \_\_\_ Days

Subcontract Comments:

**Analysis**

**Comments**

**Sample ID: Reservoir Effluent Site #5 / 18D1588-02**

**Sampled: 04/18/18 07:30 PS Code:**  
**Water**

**WTX ID:**

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

61

40C

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

Bo sty

04/19/18 07:30

Michael Hla 4/19/18 8:00

Michael Hla

4/19/18 12:17

Don P

4/19/18 12:17

**Client:** Clinical Laboratory  
**Attn:** Stu Styles  
**Project Name:** NA  
**Project No.:** 18D1588  
**Date Received:** 04/19/18  
**Matrix:** Water  
**Reporting Units:** mg/L

RSK175

|                            |  |                    |  |  |  |  |  |
|----------------------------|--|--------------------|--|--|--|--|--|
| <b>Lab No.:</b>            | J041912-01                                   |                    |  |  |  |  |  |
| <b>Client Sample I.D.:</b> | Reservoir Effluent<br>Site #5/<br>18D1588-02 |                    |  |  |  |  |  |
| <b>Date/Time Sampled:</b>  | 4/18/18 7:30                                 |                    |  |  |  |  |  |
| <b>Date/Time Analyzed:</b> | 4/23/18 12:18                                |                    |  |  |  |  |  |
| <b>QC Batch No.:</b>       | 180423GC8A1                                  |                    |  |  |  |  |  |
| <b>Analyst Initials:</b>   | AS   |                    |  |  |  |  |  |
| <b>Dilution Factor:</b>    | 1.0  |                    |  |  |  |  |  |
| <b>ANALYTE</b>             | <b>Result<br/>mg/L</b>                       | <b>RL<br/>mg/L</b> |  |  |  |  |  |
| Methane                    | 0.24   | 0.0010             |  |  |  |  |  |
|                            |  |                    |  |  |  |  |  |

ND = Not Detected (below RL)  
 RL = Reporting Limit

Reviewed/Approved By: \_\_\_\_\_

Mark Johnson  
 Operations Manager

Date

4.26.18

The cover letter is an integral part of this analytical report





QC Batch No.: 180423GC8A1  
Matrix: Water  
Units: mg/L

## QC for Dissolved Gases by EPA Procedure RSKSOP-175

|                     |        |              |         |              |          |              |          |      |          |
|---------------------|--------|--------------|---------|--------------|----------|--------------|----------|------|----------|
| Lab No.:            |        | Method Blank |         | LCS          |          | LCSD         |          |      |          |
| Date/Time Analyzed: |        | 4/23/18 9:37 |         | 4/23/18 8:57 |          | 4/23/18 9:10 |          |      |          |
| Analyst Initials:   |        | AS           |         | AS           |          | AS           |          |      |          |
| Datafile:           |        | 23apr004     |         | 23apr001     |          | 23apr002     |          |      |          |
| Dilution Factor:    |        | 1.0          |         | 1.0          |          | 1.0          |          |      |          |
| ANALYTE             | PQL    | RL           | Results | % Rec.       | Criteria | % Rec.       | Criteria | %RPD | Criteria |
| Methane             | 0.0010 | 0.0010       | ND      | 122          | 70-130%  | 118          | 70-130%  | 3.5  | <30      |

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

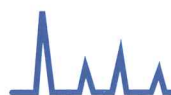
RL = PQL X Dilution Factor

Reviewed/Approved By: \_\_\_\_\_

  
Mark J. Johnson  
Operations Manager

Date: 4-26-18

The cover letter is an integral part of this analytical report.



**AirTECHNOLOGY Laboratories, Inc.**

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832



[illegible]

# *Clinical Laboratory of San Bernardino, Inc.*



07 May 2018

Clinical Lab No.: 18D2127

Mark Andersen  
Lomita, City of  
24373 Walnut Avenue  
Lomita, CA 91717

Project Name: Standard Analysis  
Sub Project: CWPF 4th Week of April, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 04/25/18 . Samples were received within temperature range, in correct containers and preservation.

Analyses were performed pursuant to client's chain of custody, within hold times, utilizing EPA or other ELAP approved methodologies.

I certify that the results are within compliance both technically and for completeness. Analytical results are attached to this letter. Please call if any additional information and or assistance are needed.

Thank you for choosing Clinical Laboratory of San Bernardino for your analytical needs.

Sincerely,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles  
Client Services Manager

# Clinical Laboratory of San Bernardino, Inc.



**Lomita, City of**  
24373 Walnut Avenue  
Lomita CA, 91717

Project: Standard Analysis  
Sub Project: CWPf 4th Week of April, 2018 Compliance Sampling  
Project Manager: Mark Andersen

Work Order: 18D2127  
Received: 04/25/18 15:00  
Reported: 05/07/18

**Reservoir Influent Site #3** **18D2127-01 (Water)** **Sample Date:** 04/25/18 7:45 **Sampler:** Patrick McCue

| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|

## Field Analyses

|                             |       |             |  |     |          |          |          |         |  |
|-----------------------------|-------|-------------|--|-----|----------|----------|----------|---------|--|
| <b>Cl Res Total (Field)</b> | Field | <b>5.88</b> |  | N/A | mg/L     | 04/25/18 | 04/25/18 | 1817126 |  |
| <b>pH (Field)</b>           | Field | <b>7.57</b> |  | N/A | pH Units | 04/25/18 | 04/25/18 | 1817126 |  |
| <b>Temperature (Field)</b>  | Field | <b>21.7</b> |  | N/A | °C       | 04/25/18 | 04/25/18 | 1817126 |  |

## General Physical Analyses

|                |           |    |     |    |             |          |          |         |  |
|----------------|-----------|----|-----|----|-------------|----------|----------|---------|--|
| Apparent Color | SM 2120BM | ND | 3.0 | 15 | Color Units | 04/25/18 | 04/25/18 | 1817124 |  |
|----------------|-----------|----|-----|----|-------------|----------|----------|---------|--|

## Metals

|                       |           |            |     |     |      |          |          |         |  |
|-----------------------|-----------|------------|-----|-----|------|----------|----------|---------|--|
| <b>Iron (Fe)</b>      | EPA 200.7 | <b>210</b> | 100 | 300 | ug/L | 04/30/18 | 04/30/18 | 1818029 |  |
| <b>Manganese (Mn)</b> | EPA 200.7 | <b>32</b>  | 20  | 50  | ug/L | 05/01/18 | 05/01/18 | 1818055 |  |

**Reservoir Effluent Site #5** **18D2127-02 (Water)** **Sample Date:** 04/25/18 8:00 **Sampler:** Patrick McCue

| Analyte | Method | Result | Rep. Limit | MCL | Units | Prepared | Analyzed | Batch | Qualifier |
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|
|---------|--------|--------|------------|-----|-------|----------|----------|-------|-----------|

## Field Analyses

|                             |       |             |  |     |          |          |          |         |  |
|-----------------------------|-------|-------------|--|-----|----------|----------|----------|---------|--|
| <b>Cl Res Total (Field)</b> | Field | <b>3.25</b> |  | N/A | mg/L     | 04/25/18 | 04/25/18 | 1817126 |  |
| <b>pH (Field)</b>           | Field | <b>8.03</b> |  | N/A | pH Units | 04/25/18 | 04/25/18 | 1817126 |  |
| <b>Temperature (Field)</b>  | Field | <b>19.6</b> |  | N/A | °C       | 04/25/18 | 04/25/18 | 1817126 |  |

## Microbiology Analyses

|                |         |    |   |     |        |          |          |         |  |
|----------------|---------|----|---|-----|--------|----------|----------|---------|--|
| Total Coliform | SM 9223 | A  |   | N/A | P/A    | 04/25/18 | 04/26/18 | 1817121 |  |
| E. Coli        | SM 9223 | A  |   | N/A | P/A    | 04/25/18 | 04/26/18 | 1817121 |  |
| Plate Count    | SM9215B | ND | 1 | 500 | CFU/ml | 04/25/18 | 04/27/18 | 1817182 |  |

## General Physical Analyses

|                       |             |          |     |    |             |          |          |         |  |
|-----------------------|-------------|----------|-----|----|-------------|----------|----------|---------|--|
| Apparent Color        | SM 2120BM   | ND       | 3.0 | 15 | Color Units | 04/25/18 | 04/25/18 | 1817124 |  |
| <b>Odor Threshold</b> | EPA 140.1-M | <b>2</b> | 1   | 3  | TON         | 04/25/18 | 04/25/18 | 1817124 |  |

## General Chemical Analyses

|                                     |           |            |      |      |      |          |          |         |  |
|-------------------------------------|-----------|------------|------|------|------|----------|----------|---------|--|
| Nitrate as N (NO3-N)                | EPA 300.0 | ND         | 0.40 | 10   | mg/L | 04/25/18 | 04/25/18 | 1817092 |  |
| <b>Total Filterable Residue/TDS</b> | SM 2540C  | <b>630</b> | 5.0  | 1000 | mg/L | 05/02/18 | 05/04/18 | 1818102 |  |

ND Analyte NOT DETECTED at or above the reporting limit



May 3, 2018

Clinical Laboratory of San Bernardino  
ATTN: Stu Styles  
21881 Barton Rd.  
Grand Terrace, CA 92313



LA Cert #04140  
EPA Methods TO3, TO14A, TO15, 25C/3C,  
RSK-175

TX Cert T104704450-14-6  
EPA Methods TO14A, TO15

UT Cert CA013332015-3  
EPA Methods TO3, TO14A, TO15, RSK-175

### LABORATORY TEST RESULTS

Project Reference: 18D2127  
Lab Number: J042602-01

Enclosed are results for sample(s) received 4/26/18 by Air Technology Laboratories. Samples were received intact and properly chilled. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

#### Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson" with a stylized flourish at the end.

Mark Johnson  
Operations Manager  
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

**SUBCONTRACT ORDER**  
**Clinical Laboratory of San Bernardino**  
**18D2127**

J042602-81

**SENDING LABORATORY:**

Clinical Laboratory of San Bernardino  
21881 Barton Road  
Grand Terrace, CA 92313  
Phone: 909.825.7693  
Fax: 909.825.7696  
Project Manager: Stu Styles

**RECEIVING LABORATORY:**

Air Technology Labs  
18501 East Gale Avenue Suite 130  
City of Industry, CA 91748  
Phone : (626) 964-4032  
Fax:

Please email results to Project Manager: Stu Styles

[ ] glaubig@clinical-lab.com [x] styles@clinical-lab.com [ ] nelson@clinical-lab.com

California EDT transfer those samples with PS codes provided [ ] Yes [x] No

Water Trax Upload Client: \_\_\_\_\_ [ ] Yes [x] No

Turn Around Time [ ] 10 Days [x] 5 Days [ ] Other \_\_\_ Days

Subcontract Comments:

**Analysis**

**Comments**

**Sample ID: Reservoir Effluent Site #5 / 18D2127-02**

**Sampled: 04/25/18 08:00 PS Code:**  
**Water**

**WTX ID:**

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

6°C

|                            |                                   |                            |                                  |
|----------------------------|-----------------------------------|----------------------------|----------------------------------|
| Released By <i>BS sty</i>  | Date / Time <i>04/26/18 07:40</i> | Received By <i>Michael</i> | Date / Time <i>4/26/18 8:00</i>  |
| Released By <i>Michael</i> | Date / Time <i>4/26/18 11:02</i>  | Received By <i>Don Ty-</i> | Date / Time <i>4/26/18 11:02</i> |

**Client:** Clinical Laboratory  
**Attn:** Stu Styles  
**Project Name:** NA  
**Project No.:** 18D2127  
**Date Received:** 04/26/18  
**Matrix:** Water  
**Reporting Units:** mg/L

RSK175

|                            |                           |               |  |  |  |  |  |
|----------------------------|---------------------------|---------------|--|--|--|--|--|
| <b>Lab No.:</b>            | <b>J042602-01</b>         |               |  |  |  |  |  |
| <b>Client Sample I.D.:</b> | <b>Reservoir Effluent</b> |               |  |  |  |  |  |
|                            | <b>Site #5/</b>           |               |  |  |  |  |  |
|                            | <b>18D2127-02</b>         |               |  |  |  |  |  |
| <b>Date/Time Sampled:</b>  | <b>4/25/18 8:00</b>       |               |  |  |  |  |  |
| <b>Date/Time Analyzed:</b> | <b>5/3/18 10:14</b>       |               |  |  |  |  |  |
| <b>QC Batch No.:</b>       | <b>180503GC8A1</b>        |               |  |  |  |  |  |
| <b>Analyst Initials:</b>   | <b>AS</b>                 |               |  |  |  |  |  |
| <b>Dilution Factor:</b>    | <b>1.0</b>                |               |  |  |  |  |  |
| <b>ANALYTE</b>             | <b>Result</b>             | <b>RL</b>     |  |  |  |  |  |
|                            | <b>mg/L</b>               | <b>mg/L</b>   |  |  |  |  |  |
| <b>Methane</b>             | <b>0.20</b>               | <b>0.0010</b> |  |  |  |  |  |
|                            |                           |               |  |  |  |  |  |

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: \_\_\_\_\_

  
Mark Johnson  
Operations Manager

Date \_\_\_\_\_

5/3/18

The cover letter is an integral part of this analytical report



QC Batch No.: 180503GC8A1  
Matrix: Water  
Units: mg/L

## QC for Dissolved Gases by EPA Procedure RSKSOP-175

| Lab No.:            |        | Method Blank |         | LCS         |          | LCSD        |          |      |          |
|---------------------|--------|--------------|---------|-------------|----------|-------------|----------|------|----------|
| Date/Time Analyzed: |        | 5/3/18 10:00 |         | 5/3/18 9:11 |          | 5/3/18 9:24 |          |      |          |
| Analyst Initials:   |        | AS           |         | AS          |          | AS          |          |      |          |
| Datafile:           |        | 03may005     |         | 03may002    |          | 03may003    |          |      |          |
| Dilution Factor:    |        | 1.0          |         | 1.0         |          | 1.0         |          |      |          |
| ANALYTE             | PQL    | RL           | Results | % Rec.      | Criteria | % Rec.      | Criteria | %RPD | Criteria |
| Methane             | 0.0010 | 0.0010       | ND      | 117         | 70-130%  | 111         | 70-130%  | 5.2  | <30      |

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: \_\_\_\_\_

  
Mark J. Johnson  
Operations Manager

Date: \_\_\_\_\_

5/3/18

The cover letter is an integral part of this analytical report.





*"Your Water and Wastewater Analysis Solution"*

## **APPENDIX B**

### METHANE MONITORING LOG



CITY OF LOMITA  
PUBLIC WORKS DEPARTMENT

**CYPRESS WATER PRODUCTION FACILITY  
HANDHELD METHANE LOG READINGS**

| APRIL 2018 |     |                      |            |          |
|------------|-----|----------------------|------------|----------|
| DATE       | DAY | METHANE HANDHELD     |            | COMMENTS |
| 4/1/2018   | Sun |                      |            | OFFLINE  |
| 4/2/2018   | Mon |                      |            |          |
| 4/3/2018   | Tue |                      |            |          |
| 4/4/2018   | Wed |                      |            |          |
| 4/5/2018   | Thu |                      |            |          |
| 4/6/2018   | Fri |                      |            |          |
| 4/7/2018   | Sat |                      |            |          |
| 4/8/2018   | Sun |                      |            |          |
| 4/9/2018   | Mon |                      |            |          |
| 4/10/2018  | Tue |                      |            |          |
| 4/11/2018  | Wed |                      |            |          |
| 4/12/2018  | Thu | CH <sub>4</sub> - 0% | Oxy- 22.2% |          |
| 4/13/2018  | Fri | CH <sub>4</sub> - 0% | Oxy- 20.7% |          |
| 4/14/2018  | Sat | CH <sub>4</sub> - 0% | Oxy- 20.8% |          |
| 4/15/2018  | Sun | CH <sub>4</sub> - 0% | Oxy- 20.9% |          |
| 4/16/2018  | Mon | CH <sub>4</sub> - 0% | Oxy- 20.9% |          |
| 4/17/2018  | Tue | CH <sub>4</sub> - 0% | Oxy- 20.2% |          |
| 4/18/2018  | Wed | CH <sub>4</sub> - 0% | Oxy- 20.8% |          |
| 4/19/2018  | Thu | CH <sub>4</sub> - 0% | Oxy- 20.9% |          |
| 4/20/2018  | Fri | CH <sub>4</sub> - 0% | Oxy- 20.7% |          |
| 4/21/2018  | Sat | CH <sub>4</sub> - 0% | Oxy- 20.9% |          |
| 4/22/2018  | Sun | CH <sub>4</sub> - 0% | Oxy- 20.9% |          |
| 4/23/2018  | Mon | CH <sub>4</sub> - 0% | Oxy- 20.8% |          |
| 4/24/2018  | Tue | CH <sub>4</sub> - 0% | Oxy- 20.8% |          |
| 4/25/2018  | Wed | CH <sub>4</sub> - 0% | Oxy- 20.9% |          |
| 4/26/2018  | Thu | CH <sub>4</sub> - 0% | Oxy- 20.7% |          |
| 4/27/2018  | Fri | CH <sub>4</sub> - 0% | Oxy- 21.5% |          |
| 4/28/2018  | Sat | CH <sub>4</sub> - 0% | Oxy- 20.8% |          |
| 4/29/2018  | Sun | CH <sub>4</sub> - 0% | Oxy- 20.0% |          |
| 4/30/2018  | Mon | CH <sub>4</sub> - 0% | Oxy- 20.9% |          |
|            |     |                      |            |          |

ND- Non Detect  
CH<sub>4</sub>- Methane  
Oxy- Oxygen  
Day Off/Holiday- Red

## **APPENDIX C**

### **NITRIFICATION MONITORING DATA SUMMARY**

<sup>1</sup> MONTHLY NITRIFICATION MONITORING SUMMARY REPORT  
CITY OF LOMITA, System No. 1910073 --- Month, Year: **April 2018**

| #              | Code | Sample ID | Location                | Sample Date | Temp    | pH      | Total Chlorine | Free Chlorine | Total Ammonia | Free Ammonia | Nitrite <sup>3</sup> | Nitrate | Coliform <sup>2</sup> | HPC     | Zone | Comments       |
|----------------|------|-----------|-------------------------|-------------|---------|---------|----------------|---------------|---------------|--------------|----------------------|---------|-----------------------|---------|------|----------------|
| Units/Others → |      |           |                         | MM/DD/YYYY  | °C      |         | mg/L           | mg/L          | mg/L          | mg/L         | mg/L                 | mg/L    | P/A                   | CFU/ml  |      |                |
| 1              | D    | S13-003   | 1948 W 252nd St         | 4/4/2018    | 17.4    | 7.85    | 2.30           | 0.03          | 0.51          | 0.03         | 0.008                | ND      | A                     | ND      | 1    | Well/MWD Blend |
| 2              | D    | S13-004   | 24632 S Moon Ave        | 4/4/2018    | 17.4    | 7.59    | 1.24           | 0.02          | 0.29          | 0.1          | 0.022                | ND      | A                     | ND      | 1    | Well/MWD Blend |
| 3              | D    | S13-008   | 25417 Pennsylvania Ave  | 4/4/2018    | 18.6    | 7.98    | 1.31           | 0.03          | 0.31          | 0.14         | 0.032                | 0.47    | A                     | ND      | 1    | Well/MWD Blend |
| 4              | D    | A         | 2052 Dawn St            | 4/4/2018    | 19.2    | 7.15    | 0.76           | 0.06          | 0.28          | 0.15         | 0.087                | 0.42    | A                     | 130     | 1    | Well/MWD Blend |
| 5              | D    |           | Reservoir SP5           |             | Offline | Offline | Offline        | Offline       | Offline       | Offline      | Offline              | Offline | Offline               | Offline | 1    | Well/MWD Blend |
| 6              | D    | S13-001   | 1912 W 259th St         | 4/4/2018    | 18.2    | 8.18    | 2.40           | 0.04          | 0.50          | 0.07         | 0.013                | ND      | A                     | ND      | 2    | MWD Only       |
| 7              | D    | S13-002   | 26314 S Monte Vista Ave | 4/4/2018    | 16.7    | 8.17    | 2.40           | 0.10          | 0.49          | 0.08         | 0.011                | ND      | A                     | ND      | 3    | MWD Only       |
| 8              | D    | S13-005   | 2500 PCH                | 4/4/2018    | 17.8    | 8.18    | 2.20           | 0.11          | 0.51          | 0.07         | 0.016                | ND      | A                     | ND      | 2    | MWD Only       |

|   |   |         |                         |           |      |      |      |      |      |      |       |    |   |     |  |                |
|---|---|---------|-------------------------|-----------|------|------|------|------|------|------|-------|----|---|-----|--|----------------|
| 1 | D | S13-003 | 1948 W 252nd St         | 4/11/2018 | 17.4 | 8.10 | 2.40 | 0.04 | 0.55 | 0.00 | 0.006 | ND | A | ND  |  | Well/MWD Blend |
| 2 | D | S13-004 | 24632 S Moon Ave        | 4/11/2018 | 18.5 | 8.12 | 1.43 | 0.03 | 0.32 | 0.03 | 0.039 | ND | A | 300 |  | Well/MWD Blend |
| 3 | D | S13-008 | 25417 Pennsylvania Ave  | 4/11/2018 | 19.6 | 8.04 | 1.60 | 0.02 | 0.37 | 0.11 | 0.014 | ND | A | 160 |  | Well/MWD Blend |
| 4 | D | A       | 2052 Dawn St            | 4/11/2018 | 18.1 | 8.31 | 2.60 | 0.04 | 0.52 | 0.08 | 0.008 | ND | A | 29  |  | Well/MWD Blend |
| 5 | D |         | Reservoir SP5           | 4/11/2018 | 19.8 | 8.06 | 3.08 | 0.04 | 0.74 | 0.05 | 0.008 | ND | A | ND  |  | Well/MWD Blend |
| 6 | D | S13-001 | 1912 W 259th St         | 4/11/2018 | 19.5 | 8.52 | 2.30 | 0.09 | 0.76 | 0.06 | 0.007 | ND | A | ND  |  | MWD Only       |
| 7 | D | S13-002 | 26314 S Monte Vista Ave | 4/11/2018 | 18.5 | 8.33 | 2.40 | 0.06 | 0.51 | 0.03 | 0.007 | ND | A | 1   |  | MWD Only       |
| 8 | D | S13-005 | 2500 PCH                | 4/11/2018 | 18.8 | 8.32 | 2.30 | 0.12 | 0.51 | 0.05 | 0.009 | ND | A | ND  |  | MWD Only       |

|   |   |         |                         |           |      |      |      |      |      |      |       |    |    |                   |   |                |
|---|---|---------|-------------------------|-----------|------|------|------|------|------|------|-------|----|----|-------------------|---|----------------|
| 1 | D | S13-003 | 1948 W 252nd St         | 4/18/2018 | 18.9 | 7.64 | 3.20 | 0.04 | 0.60 | 0.01 | 0.004 | ND | A  | ND                | 1 | Well/MWD Blend |
| 2 | D | S13-004 | 24632 S Moon Ave        | 4/18/2018 | 17.9 | 7.62 | 3.20 | 0.07 | 0.56 | 0.04 | 0.005 | ND | A  | 2000 <sup>4</sup> | 1 | Well/MWD Blend |
| 3 | D | S13-008 | 25417 Pennsylvania Ave  | 4/18/2018 | 18.5 | 7.74 | 3.80 | 0.06 | 0.60 | 0.00 | 0.005 | ND | A  | ND                | 1 | Well/MWD Blend |
| 4 | D | A       | 2052 Dawn St            | 4/18/2018 | 21.1 | 7.62 | 1.43 | 0.04 | 0.35 | 0.11 | 0.002 | ND | A  | 300               | 1 | Well/MWD Blend |
| 5 | D |         | Reservoir SP5           | 4/18/2018 | 19.3 | 8.01 | 3.57 | 0.10 | 0.66 | 0.00 | 0.002 | ND | A  | ND                | 1 | Well/MWD Blend |
| 6 | D | S13-001 | 1912 W 259th St         | 4/18/2018 | 17.7 | 8.40 | 2.60 | 0.04 | 0.54 | 0.05 | 0.003 | ND | A  | ND                | 2 | MWD Only       |
| 7 | D | S13-002 | 26314 S Monte Vista Ave | 4/18/2018 | 17.5 | 8.35 | 2.60 | 0.03 | 0.44 | 0.05 | 0.004 | ND | A  | ND                | 3 | MWD Only       |
| 8 | D | S13-005 | 2500 PCH                | 4/18/2018 | 17.4 | 8.27 | 2.30 | 0.05 | 0.48 | 0.03 | 0.002 | ND | ND | ND                | 2 | MWD Only       |

|   |   |         |                         |           |      |      |      |      |      |      |       |    |   |    |   |                |
|---|---|---------|-------------------------|-----------|------|------|------|------|------|------|-------|----|---|----|---|----------------|
| 1 | D | S13-003 | 1948 W 252nd St         | 4/25/2018 | 20.5 | 7.82 | 3.10 | 0.04 | 0.56 | 0.00 | 0.012 | ND | A | 2  | 1 | Well/MWD Blend |
| 2 | D | S13-004 | 24632 S Moon Ave        | 4/25/2018 | 18.8 | 7.74 | 3.10 | 0.05 | 0.51 | 0.00 | 0.007 | ND | A | ND | 1 | Well/MWD Blend |
| 3 | D | S13-008 | 25417 Pennsylvania Ave  | 4/25/2018 | 19.9 | 7.64 | 3.40 | 0.06 | 0.53 | 0.00 | 0.006 | ND | A | ND | 1 | Well/MWD Blend |
| 4 | D | A       | 2052 Dawn St            | 4/25/2018 | 21.5 | 7.54 | 1.82 | 0.06 | 0.38 | 0.15 | 0.008 | ND | A | 68 | 1 | Well/MWD Blend |
| 5 | D |         | Reservoir SP5           | 4/25/2018 | 19.6 | 8.03 | 3.25 | 0.05 | 0.62 | 0.00 | 0.008 | ND | A | ND | 1 | Well/MWD Blend |
| 6 | D | S13-001 | 1912 W 259th St         | 4/25/2018 | 18.9 | 8.35 | 2.70 | 0.14 | 0.57 | 0.03 | 0.007 | ND | A | ND | 2 | MWD Only       |
| 7 | D | S13-002 | 26314 S Monte Vista Ave | 4/25/2018 | 17.7 | 8.44 | 2.70 | 0.12 | 0.54 | 0.00 | 0.006 | ND | A | ND | 3 | MWD Only       |
| 8 | D | S13-005 | 2500 PCH                | 4/25/2018 | 17.6 | 8.31 | 2.60 | 0.02 | 0.53 | 0.04 | 0.006 | ND | A | ND | 2 | MWD Only       |

|   |   |         |                         |  |  |  |  |  |  |  |  |  |  |  |   |                |
|---|---|---------|-------------------------|--|--|--|--|--|--|--|--|--|--|--|---|----------------|
| 1 | D | S13-003 | 1948 W 252nd St         |  |  |  |  |  |  |  |  |  |  |  | 1 | Well/MWD Blend |
| 2 | D | S13-004 | 24632 S Moon Ave        |  |  |  |  |  |  |  |  |  |  |  | 1 | Well/MWD Blend |
| 3 | D | S13-008 | 25417 Pennsylvania Ave  |  |  |  |  |  |  |  |  |  |  |  | 1 | Well/MWD Blend |
| 4 | D | A       | 2052 Dawn St            |  |  |  |  |  |  |  |  |  |  |  | 1 | Well/MWD Blend |
| 5 | D |         | Reservoir               |  |  |  |  |  |  |  |  |  |  |  | 1 | Well/MWD Blend |
| 6 | D | S13-001 | 1912 W 259th St         |  |  |  |  |  |  |  |  |  |  |  | 2 | MWD Only       |
| 7 | D | S13-002 | 26314 S Monte Vista Ave |  |  |  |  |  |  |  |  |  |  |  | 3 | MWD Only       |
| 8 | D | S13-005 | 2500 PCH                |  |  |  |  |  |  |  |  |  |  |  | 2 | MWD Only       |

<sup>1</sup>Notes: Report Due to DDW by the 10th of the following month. This Report can be used for the routine weekly monitoring (one Report per month) as well as for daily monitoring when there is actual and potential for nitrification (about four or five Reports per month, in this case).

<sup>2</sup>Coliform results are part of weekly Bacti sampling results.

<sup>3</sup>The City is monitoring trends of Nitrite in Zone I, in accordance with the Nitrification Monitoring Plan. Due to elevated reads additional hydrant flushing has been implemented.

<sup>4</sup>The City included additional HPC sampling for Moon Ave after receiving high results for the week of 4/18/18. Samples were taken on 4/23/18 and results show ND.