

CITY OF LOMITA



# Cypress Water Production Facility Monthly Status Report

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MAY 2016

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**CITY COUNCIL**

JIM GAZELEY  
MARK WARONEK  
HENRY SANCHEZ, JR  
MICHAEL G. SAVIDAN  
BEN TRAINA



**CITY OF LOMITA**

**ADMINISTRATION**

RYAN SMOOT  
CITY MANAGER

June 10, 2016

Mr. Paul Williams, 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 May 1 through May 31, 2016.

Dear Mr. Williams,

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 May 2016.

If you should have any questions or concerns, please contact me at 310-325-7110 x124.

Sincerely,

Mark A. McAvoy, P.E.  
Public Works Director/City Engineer

## **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 AND OPERATIONS**

For the month of May 2016, the CWPF operated as follows: filled for 24 days and drew down for 7 days. See Section C below for changes in operation.

The total production from Well No. 5 for the month was approximately 47.00 ac-ft (15,313,056 gallons) with a daily production of approximately 1.96 ac-ft. The total combined production from both MWD import water and Well No. 5 was approximately 102.33 ac-ft (33,342,045 gallons) for the month with a combined daily production of approximately 4.26 ac-ft.

The daily average flow from Well No. 5 was 579 gpm. The average flow from the Well was determined by taking an average of the daily reads provided on the Daily Monitoring logs used onsite. The blend ratio for this month was on average 46% Well water and 54% MWD water.

## **C. OPERATIONAL INTERRUPTIONS**

During the first half of May 2016, the CWPF operated normal with a fill and draw cycle meeting a demand of 1.2 MGD and maintaining water levels ranging from 10' to 24' inside the reservoir. On May 13, 2016 the CWPF operational scheme was modified to continuously fill the reservoir to maintain water levels ranging from 7' to 10' only, while still meeting a demand of 1.2 MGD. This new operational scheme will allow the City to better control chlorine demand inside the reservoir before releasing into Zone I of the Distribution System.

On Saturday, May 28, 2016 the CWPF was shut down due to an electrical outage. MWD imported water was used to supply Zone I from May 28, 2016 to May 31, 2016. Electrical and SCADA maintenance and upgrades, inspection and cleaning of the reservoir, were performed during this shut down. It is anticipated that the CWPF will be back online in early June 2016, after some planned water quality engineering work is performed at CWPF (groundwater chlorine demand and organics characterization).

## **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 1 below for a summary of the results for the compliance monitoring at the three sample locations SP1 through SP3. Color and Iron in the raw water (SP1) for the month were below the MCL. Manganese concentrations in the raw water (SP1) were above the MCL. Iron and Manganese levels entering the reservoir (SP3) show non-detect, indicating the greensand filtration system remains highly effective. Other additional bacteriological laboratory samples collected included Total Coliform and Heterotrophic Plate Count (HPC) levels on the effluent side of the greensand filter (SP2) showing absent for both.

### **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 2 below for a weekly summary of results.

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

See Table 3 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 710 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 710 mg/L and 650 mg/L, respectively.

### **E3-2 HARDNESS**

The sampling results for the month indicate the hardness levels of the blended water to be on average 307 mg/L. Although, this hardness level is in the upper range of 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 0.68 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 May 2016 in Appendix B.

## **E4. NITRIFICATION MONITORING**

Weekly Nitrification sampling was performed during the month of May 2016, see Appendix C.



## F. TABLES

Table 1. 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 = 3 00 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
5/4/2016	180	300	120	50	10	15	A	A	A	500	ND	300	ND	50	ND	15
5/11/2016											ND	300	ND	50	ND	15
5/18/2016											ND	300	ND	50	ND	15
5/25/2016											ND	300	ND	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 2. 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>
5/4/2016	5.72	0.47	-	-	0.04	4.18	0.70	0.04	2.05	0.54
5/11/2016	7.11	0.40	5.43	-	0.29	3.93	0.74	0.09	2.82	0.61
5/18/2016	8.52	0.23	5.21	0.73	0.20	4.35	0.79	0.05	2.97	0.67
5/25/2016	9.97	0.40	5.56	0.70	0.09	4.03	0.77	0.06	2.85	0.64

Table 3. 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
5/4/2016	710	650	*700	500-750	1	3					11.0	1.60
5/11/2016			720	500-750			320	310	310	180-250	5.6	0.48
5/18/2016			710	500-750	1	3			300	180-250		0.45
5/25/2016			710	500-750	1	3			310	180-250		0.19
<b>Average</b>			<b>710</b>	500-750	<b>1</b>	<b>3</b>	<b>320</b>	<b>310</b>	<b>307</b>	180-250	<b>8.3</b>	<b>0.68</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  
 \*Read from 5/31/16



**Monthly CWPf Monitoring Report – MAY 2016**  
**Cypress Water Production Facility**  
**City of Lomita; System No. 1910073**

Sample Locations and Parameters	Frequency	MCL/ Goal	5/4	5/11	5/18	5/26	N/A	Comments and/or Other Info.
			1stWk	2 <sup>nd</sup> Wk	3rdWk	4 <sup>th</sup> Wk	5 <sup>th</sup> Wk	
			or Mo. Result (date)					

**SP1 --- Also called Well 5 Raw Water or Site#1.**

TDS, ppm	Monthly	See SP5	710 (5/4)	<b>Operations Data/Information:</b>  <b>CWPf operation days – 31 days (24 fill days; 7 draw days; 0 isolation days)</b> <b>On Well 5:</b> Daily average flow - 579 gpm; MAY 2016 total prod. – 47.00 AF; Daily prod. – 1.96 AF <b>Combined Well 5/MWD data:</b> Average Well 5: MWD blend Ratio – 46%:54%; MAY 2016 total prod.- 102.33 AF; Combined Daily prod.- 4.26 AF  Chlorine Dosage: N/A*				*Chlorine injected after SP1, before entering the greensand filter.
Hardness	Monthly	See SP5	320 (5/11)					
CH4, ppm	Monthly	See SP5	8.3 (5/4 & 5/11)					
Iron, ppb	Monthly	See SP3	180 (5/4)					
Manganese, ppb	Monthly	See SP3	120 (5/4)					
Color, units	Monthly	See SP3	10 (5/4)					
Total Coliform, P or A	Monthly	A	A (5/4)					

**SP2 --- Also called Filter Effluent or Site#3.**

Total Coliform, P or A	Monthly	A	A (5/4)	Ammonia Dosage: N/A*	*Ammonia added after filter effluent
HPC,MPN/100 ml	Monthly	500	A (5/4)		
Free Cl Res, ppm	Continuous	Average: 7.83; Range: 5.72 – 9.97			

**SP3 --- Also called the Site After Chloramination & Before MWD Blending or Site#4.**

Iron, ppb	Weekly	300	ND	ND	ND	ND		
Manganese, ppb	Weekly	50	ND	ND	ND	ND		
Color	Weekly	15	ND	ND	ND	ND		
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.37; Range: 0.23 – 0.47 Total Cl: Average: 5.40; Range: 5.21 – 5.56 Ammonia: Average: 0.72; Range: 0.70 – 0.73						

**SP4 --- Also called Reservoir Influent or the Site Well 5/MWD Water Blend Point/Phosphate Injection.**

Phosphate Injection		Phosphate Dosage: 2.0 mg/L						
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.15; Range: 0.04 – 0.29 Total Cl: Average: 4.12; Range: 3.93 – 4.35 Ammonia: Average: 0.75; Range: 0.70 – 0.79						Cl/NH3 Ratio: 5.50, chloraminated water into the Reservoir

**SP5 --- Also called Reservoir Effluent or Site#5. SP5 discharges into Zone 1 of the distribution system.**

TDS, ppm	Weekly	SI Goal: 500-750ppm	*700	720	710	710		*Read from 5/31/16.
Hardness	Monthly	SI Goal: 180-250ppm		310	300	310		
CH4, ppm	Weekly	Goal: from PA	1.6	0.46	0.45	0.19		% CH4 Removal: 91%
Odor, units	Monthly	1						
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.06; Range: 0.04 – 0.09 Total Cl: Average: 2.67; Range: 2.05 – 2.97 Ammonia: Average: 0.61; Range: 0.54 – 0.67						Cl/NH3 Ratio: 4.36, chloraminated water supplied Zone 1

**Headspace of the Cypress Reservoir.**

1CH4 ppmv; using Portable Device	Daily (from log)	Goal - LEL	CH4 Average: 0.2% CH4 Range: 0% - 3%				
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**SP 6 --- MWD Source Feeding CWPf. Also called Zone 2 of the distribution system or Site #6.**

TDS, ppm	Monthly	-----		650			None	
Hardness	Monthly	-----		310			None	

Notes: 1Self-Imposed (SI) Goals: TDS Goal-500-750 ppm; Hardness as CaCO3 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.*



07 June 2016

Clinical Lab No.: 16F0013

Client User  
Lomita, City of  
24373 Walnut Avenue  
Lomita, CA 91717

Project Name: Standard Analysis  
Sub Project: CWPF Monthly May Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 05/31/16 . 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 cursive script that reads 'Pamela Ybarra'.

Pamela Ybarra For 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 Monthly May Compliance Sampling  
Project Manager: Client User

Work Order: 16F0013  
Received: 05/31/16 17:10  
Reported: 06/07/16

**Reservoir Influent Site #5**                      **16F0013-01 (Water)**                      **Sample Date:** 05/31/16 9:00                      **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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## Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>0.38</b>		N/A	mg/L	05/31/16	05/31/16	1623098	
<b>pH (Field)</b>	Field	<b>8.1</b>		N/A	pH Units	05/31/16	05/31/16	1623098	
<b>Temperature (Field)</b>	Field	<b>19.8</b>		N/A	°C	05/31/16	05/31/16	1623098	

## General Chemical Analyses

<b>Total Filterable Residue/TDS</b>	SM 2540C	<b>700</b>	5.0	1000	mg/L	06/01/16	06/02/16	1623063	
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ND            Analyte NOT DETECTED at or above the reporting limit

## "Your Water and Wastewater Analysis Solution"



# *Clinical Laboratory of San Bernardino, Inc.*



06 June 2016

Clinical Lab No.: 16E2151

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

Project Name: Standard Analysis  
Sub Project: CWPF Weekly Compliance Sampling 4th Week May

Enclosed are the results of the analyses for samples received at the laboratory on 05/25/16 . 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 cursive script that reads 'Pamela Ybarra'.

Pamela Ybarra For 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 Weekly Compliance Sampling 4th Week May  
Project Manager: Mark Andersen

Work Order: 16E2151  
Received: 05/25/16 15:45  
Reported: 06/06/16

**Reservoir Influent Site #3** **16E2151-01 (Water)** **Sample Date:** 05/25/16 10:40 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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## Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>6.31</b>		N/A	mg/L	05/25/16	05/25/16	1622361	
<b>pH (Field)</b>	Field	<b>7.58</b>		N/A	pH Units	05/25/16	05/25/16	1622361	
<b>Temperature (Field)</b>	Field	<b>21.5</b>		N/A	°C	05/25/16	05/25/16	1622361	

## General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	05/25/16	05/25/16	1623006	
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## Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	05/31/16	05/31/16	1622414	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	05/31/16	05/31/16	1622414	

**Reservoir Effluent Site #5** **16E2151-02 (Water)** **Sample Date:** 05/25/16 6:30 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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## Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>2.75</b>		N/A	mg/L	05/25/16	05/25/16	1622361	
<b>pH (Field)</b>	Field	<b>8.1</b>		N/A	pH Units	05/25/16	05/25/16	1622361	
<b>Temperature (Field)</b>	Field	<b>19.1</b>		N/A	°C	05/25/16	05/25/16	1622361	

## General Chemical Analyses

<b>Hardness, Total (as CaCO3)</b>	Calculated	<b>310</b>	6.6	N/A	mg/L	05/31/16	05/31/16	[CALC]	
<b>Total Filterable Residue/TDS</b>	SM 2540C	<b>710</b>	5.0	1000	mg/L	05/26/16	05/27/16	1622161	

## Metals

<b>Calcium (Ca)</b>	EPA 200.7	<b>80</b>	1.0	N/A	mg/L	05/31/16	05/31/16	1623018	
<b>Magnesium (Mg)</b>	EPA 200.7	<b>28</b>	1.0	N/A	mg/L	05/31/16	05/31/16	1623018	

ND Analyte NOT DETECTED at or above the reporting limit



## Certificate of Analysis

Project: 16E2151

Report Date: 06/06/16 09:12

Received Date: 05/27/16 10:07

Turnaround Time: 5 workdays

Phones: (909) 825-7693

Fax: (909) 825-7696

P.O. #:

Attn: John Styles

Client: Clinical Laboratory of San Bernardino, Inc.  
21881 Barton Road  
Grand Terrace, CA 92313

Dear John Styles :

Enclosed are the results of analyses for samples received 5/27/2016 with the Chain of Custody document. The samples were received in good condition, at 1.3 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab ID: 6E27023-01

Sample ID: Reservoir Effluent Site #5/ 16E2151-02

Matrix: Water

Sampled by: Client

Sampled: 05/25/16 06:30

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane .....	0.19	0.0012	0.010	mg/l	1	RSK-175	6/2/16	6/2/16 16:19	W6F0148	



## Certificate of Analysis

## Quality Control Section

## Dissolved Gases in Water by RSK-175 - Quality Control

## Batch W6F0148 - RSK-175

## Blank (W6F0148-BLK1)

Prepared: 06/02/16 Analyzed: 06/02/16 15:00

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane .....		ND		mg/l					

## LCS (W6F0148-BS1)

Prepared: 06/02/16 Analyzed: 06/02/16 15:39

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane .....		0.214		mg/l	0.198	108	85-115		

## Duplicate (W6F0148-DUP1)

Source: 6E27023-01

Prepared: 06/02/16 Analyzed: 06/02/16 16:39

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane .....	0.187 .....	0.217		mg/l				15	20



## Certificate of Analysis

**Notes:**

The Chain of Custody document is part of the analytical report.

Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.

The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).

For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

**Authorized Signature**

Contact: Brandon Gee  
(Project Manager)



ELAP # 1132  
LACSD # 10143  
NELAC #4047-002 ORELAP

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.*

**Flags for Data Qualifiers:**

ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then not detected at or above the MDL.
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable



**SUBCONTRACT ORDER**  
**Clinical Laboratory of San Bernardino**  
**16E2151**

6E77023

**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:**

Weck Lab, Analytical & Environmental  
Analytical & Environmental Svc 14859 E Clark Ave  
Industry, CA 91745  
Phone : (626) 336-2139  
Fax: (626) 336-2634

Please email results to Project Manager: Stu Styles

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

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

Transfer File requested; log in with Element ID only [ ] Yes [x] No

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

Subcontract Comments:

**Analysis**

**Comments**

Sample ID: Reservoir Effluent Site #5 / 16E2151-02

Sampled: 05/25/16 06:30 PS Code: 1910073-006  
Water WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

Released By <i>Bo Clark</i>	Date / Time 05/27/16 07:30	Received By <i>m Clark</i>	Date / Time 5/27/16 9:00
Released By <i>m Clark</i>	Date / Time 5/27/16 10:07	Received By <i>[Signature]</i>	Date / Time 5.27.16 1007

1.34

15th May 191

*"Your Water and Wastewater Analysis Solution"*

# *Clinical Laboratory of San Bernardino, Inc.*



31 May 2016

Clinical Lab No.: 16E2124

Client User  
Lomita, City of  
24373 Walnut Avenue  
Lomita, CA 91717

Project Name: Standard Analysis  
Sub Project: CWPF Weekly Standard 4th Week May

Enclosed are the results of the analyses for samples received at the laboratory on 05/25/16 . 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 cursive script that reads 'Pamela Ybarra'.

Pamela Ybarra For 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 Weekly Standard 4th Week May  
Project Manager: Client User

Work Order: 16E2124  
Received: 05/25/16 15:45  
Reported: 05/31/16

## Reservoir Effluent Site SP5

16E2124-01 (Water)

Sample Date: 05/25/16 10:30 Sampler: DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

Cl Res Total (Field)	Field	2.75		N/A	mg/L	05/25/16	05/25/16	1622341	
pH (Field)	Field	8		N/A	pH Units	05/25/16	05/25/16	1622341	
Temperature (Field)	Field	19.1		N/A	°C	05/25/16	05/25/16	1622341	

### General Physical Analyses

Odor Threshold	EPA 140.1M	1	1	3	TON	05/25/16	05/25/16	1623006	
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ND Analyte NOT DETECTED at or above the reporting limit

16E2124

*"Your Water and Wastewater Analysis Solution"*



# *Clinical Laboratory of San Bernardino, Inc.*



02 June 2016

Clinical Lab No.: 16E1641

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

Project Name: Standard Analysis  
Sub Project: CWPF 3rd Weekly May Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 05/18/16 . 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 cursive script that reads 'Pamela Ybarra'.

Pamela Ybarra For 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 3rd Weekly May Compliance Sampling  
Project Manager: Mark Andersen

Work Order: 16E1641  
Received: 05/18/16 17:00  
Reported: 06/02/16

**Reservoir Influent Site #3** **16E1641-01 (Water)** **Sample Date:** 05/18/16 9:40 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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## Field Analyses

**Cl Res Total (Field)** Field **5.4** N/A mg/L 05/18/16 05/18/16 1621388

## General Physical Analyses

Apparent Color SM 2120B ND 3.0 15 Color Units 05/18/16 05/18/16 1621374

## Metals

Iron (Fe) EPA 200.7 ND 100 300 ug/L 05/24/16 05/24/16 1622055  
Manganese (Mn) EPA 200.7 ND 20 50 ug/L 05/24/16 05/24/16 1622055

**Reservoir Effluent Site #5** **16E1641-02 (Water)** **Sample Date:** 05/18/16 8:25 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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## Field Analyses

**Cl Res Total (Field)** Field **2.98** N/A mg/L 05/18/16 05/18/16 1621388  
**pH (Field)** Field **7.76** N/A pH Units 05/18/16 05/18/16 1621388  
**Temperature (Field)** Field **19** N/A °C 05/18/16 05/18/16 1621388

## Microbiology Analyses

Total Coliform SM 9223 A N/A P/A 05/18/16 05/19/16 1621357  
E. Coli SM 9223 A N/A P/A 05/18/16 05/19/16 1621357  
Plate Count SM9215B ND 1 500 CFU/ml 05/18/16 05/20/16 1621452

## General Chemical Analyses

**Hardness, Total (as CaCO3)** Calculated **300** 6.6 N/A mg/L 05/23/16 05/23/16 [CALC]  
**Total Filterable Residue/TDS** SM 2540C **710** 5.0 1000 mg/L 05/19/16 05/20/16 1621348

## Metals

**Calcium (Ca)** EPA 200.7 **79** 1.0 N/A mg/L 05/23/16 05/23/16 1622027  
Iron (Fe) EPA 200.7 ND 100 300 ug/L 05/24/16 05/24/16 1622055  
**Magnesium (Mg)** EPA 200.7 **26** 1.0 N/A mg/L 05/23/16 05/23/16 1622027

ND Analyte NOT DETECTED at or above the reporting limit



## Certificate of Analysis

Report Date: 05/31/16 09:13

Received Date: 05/20/16 11:28

Turnaround Time: 5 workdays

Project: 16E1641

Phones: (909) 825-7693

Fax: (909) 825-7696

P.O. #:

Attn: John Styles

Client: Clinical Laboratory of San Bernardino, Inc.  
21881 Barton Road  
Grand Terrace, CA 92313

Dear John Styles :

Enclosed are the results of analyses for samples received 5/20/2016 with the Chain of Custody document. The samples were received in good condition, at 1.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab ID: 6E20035-01

Sample ID: Reservoir Effluent Site #5 / 16E1641-02

Matrix: Water

Sampled by: Client

Sampled: 05/18/16 08:25

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane .....	0.45	0.0012	0.010	mg/l	1	RSK-175	5/26/16	5/26/16 17:36	W6E1539	



## Certificate of Analysis

## Quality Control Section

## Dissolved Gases in Water by RSK-175 - Quality Control

## Batch W6E1539 - RSK-175

## Blank (W6E1539-BLK1)

Prepared: 05/26/16 Analyzed: 05/26/16 16:17

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane .....		ND		mg/l					

## LCS (W6E1539-BS1)

Prepared: 05/26/16 Analyzed: 05/26/16 18:35

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane .....		0.221		mg/l	0.198	112	85-115		

## Duplicate (W6E1539-DUP1)

Source: 6E20035-01

Prepared: 05/26/16 Analyzed: 05/26/16 17:56

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane .....	0.455 .....	0.495		mg/l				9	20



## Certificate of Analysis

**Notes:**

The Chain of Custody document is part of the analytical report.

Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.

The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).

For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

**Authorized Signature**

Contact: Brandon Gee  
(Project Manager)



ELAP # 1132  
LACSD # 10143  
NELAC #4047-002 ORELAP

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.*

**Flags for Data Qualifiers:**

ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then not detected at or above the MDL.
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable



## SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino

16E1641

6E20035

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:

Weck Lab, Analytical & Environmental  
Analytical & Environmental Svc 14859 E Clark Ave  
Industry, CA 91745  
Phone : (626) 336-2139  
Fax: (626) 336-2634

Please email results to Project Manager: Stu Styles

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

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

Transfer File requested; log in with Element ID only [ ] Yes [x] No

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

Subcontract Comments:

AnalysisComments

Sample ID: Reservoir Effluent Site #5 / 16E1641-02

Sampled: 05/18/16 08:25 PS Code: 1910073-006  
Water WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40mL Amber Vial HCl (B)

40mL Amber Vial HCl (C)

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

169139

# *Clinical Laboratory of San Bernardino, Inc.*



23 May 2016

Clinical Lab No.: 16E1669

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

Project Name: Weekly Distribution  
Sub Project: CWPF Weekly Standard 3rd Week May

Enclosed are the results of the analyses for samples received at the laboratory on 05/18/16 . 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 cursive script that reads 'Pamela Ybarra'.

Pamela Ybarra For Stu Styles  
Client Services Manager

# Clinical Laboratory of San Bernardino, Inc.



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

Project: Weekly Distribution  
Sub Project: CWPF Weekly Standard 3rd Week May  
Project Manager: Mark Andersen

Work Order: 16E1669  
Received: 05/18/16 15:15  
Reported: 05/23/16

## Reservoir Effluent Site SP5

16E1669-01 (Water)

Sample Date: 05/18/16 7:30 Sampler: DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

Cl Res Total (Field)	Field	2.9		N/A	mg/L	05/18/16	05/18/16	1621424	
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### General Physical Analyses

Odor Threshold	EPA 140.1M	1	1	3	TON	05/18/16	05/18/16	1621374	
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ND Analyte NOT DETECTED at or above the reporting limit

*"Your Water and Wastewater Analysis Solution"*

# *Clinical Laboratory of San Bernardino, Inc.*



27 May 2016

Clinical Lab No.: 16E1080

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

Project Name: Standard Analysis  
Sub Project: CWPF 2nd Weekly Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 05/11/16 . 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 'Gregory Nelson For Stu Styles'.

Gregory Nelson For 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 2nd Weekly Compliance Sampling  
Project Manager: Mark Andersen

Work Order: 16E1080  
Received: 05/11/16 16:00  
Reported: 05/27/16

**Reservoir Influent Site #3** **16E1080-01 (Water)** **Sample Date:** 05/11/16 9:10 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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## Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>6.1</b>		N/A	mg/L	05/11/16	05/11/16	1620336	
<b>pH (Field)</b>	Field	<b>7.58</b>		N/A	pH Units	05/11/16	05/11/16	1620336	
<b>Temperature (Field)</b>	Field	<b>22</b>		N/A	°C	05/11/16	05/11/16	1620336	

## General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	05/11/16	05/11/16	1620395	
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## Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	05/19/16	05/19/16	1621296	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	05/19/16	05/19/16	1621296	

**Reservoir Effluent Site #5** **16E1080-02 (Water)** **Sample Date:** 05/11/16 9:00 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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## Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>2.85</b>		N/A	mg/L	05/11/16	05/11/16	1620336	
<b>pH (Field)</b>	Field	<b>7.86</b>		N/A	pH Units	05/11/16	05/11/16	1620336	
<b>Temperature (Field)</b>	Field	<b>19.9</b>		N/A	°C	05/11/16	05/11/16	1620336	

## Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	05/11/16	05/12/16	1620340	
E. Coli	SM 9223	A		N/A	P/A	05/11/16	05/12/16	1620340	
Plate Count	SM9215B	ND	1	500	CFU/ml	05/11/16	05/13/16	1620439	

## General Chemical Analyses

<b>Hardness, Total (as CaCO3)</b>	Calculated	<b>310</b>	6.6	N/A	mg/L	05/19/16	05/19/16	[CALC]	
<b>Total Filterable Residue/TDS</b>	SM 2540C	<b>720</b>	5.0	1000	mg/L	05/12/16	05/17/16	1620293	

## Metals

<b>Calcium (Ca)</b>	EPA 200.7	<b>80</b>	1.0	N/A	mg/L	05/19/16	05/19/16	1621298	
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	05/19/16	05/19/16	1621296	
<b>Magnesium (Mg)</b>	EPA 200.7	<b>26</b>	1.0	N/A	mg/L	05/19/16	05/19/16	1621298	



# Clinical Laboratory of San Bernardino, Inc.



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

Project: Standard Analysis  
Sub Project: CWPf 2nd Weekly Compliance Sampling  
Project Manager: Mark Andersen

Work Order: 16E1080  
Received: 05/11/16 16:00  
Reported: 05/27/16

## Raw Water Site #1

**16E1080-03 (Water)**

**Sample Date:** 05/11/16 8:45 **Sampler:** D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>2.85</b>		N/A	mg/L	05/11/16	05/11/16	1620336	
<b>pH (Field)</b>	Field	<b>7.56</b>		N/A	pH Units	05/11/16	05/11/16	1620336	
<b>Temperature (Field)</b>	Field	<b>22.1</b>		N/A	°C	05/11/16	05/11/16	1620336	

### General Chemical Analyses

<b>Hardness, Total (as CaCO3)</b>	Calculated	<b>320</b>	6.6	N/A	mg/L	05/19/16	05/19/16	[CALC]	
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### Metals

<b>Calcium (Ca)</b>	EPA 200.7	<b>85</b>	1.0	N/A	mg/L	05/19/16	05/19/16	1621298	
<b>Magnesium (Mg)</b>	EPA 200.7	<b>27</b>	1.0	N/A	mg/L	05/19/16	05/19/16	1621298	

## MWD Site #6

**16E1080-04 (Water)**

**Sample Date:** 05/11/16 8:50 **Sampler:** D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>2.8</b>		N/A	mg/L	05/11/16	05/11/16	1620336	
<b>pH (Field)</b>	Field	<b>8.14</b>		N/A	pH Units	05/11/16	05/11/16	1620336	
<b>Temperature (Field)</b>	Field	<b>19.2</b>		N/A	°C	05/11/16	05/11/16	1620336	

### General Chemical Analyses

<b>Hardness, Total (as CaCO3)</b>	Calculated	<b>310</b>	6.6	N/A	mg/L	05/19/16	05/19/16	[CALC]	
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### Metals

<b>Calcium (Ca)</b>	EPA 200.7	<b>77</b>	1.0	N/A	mg/L	05/19/16	05/19/16	1621298	
<b>Magnesium (Mg)</b>	EPA 200.7	<b>28</b>	1.0	N/A	mg/L	05/19/16	05/19/16	1621298	

ND Analyte NOT DETECTED at or above the reporting limit

# Clinical Laboratory of San Bernardino, Inc.



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

Project: Standard Analysis  
Sub Project: CWP 2nd Weekly Compliance Sampling  
Project Manager: Mark Andersen

Work Order: 16E1080  
Received: 05/11/16 16:00  
Reported: 05/27/16

## Reservoir Influent Site #3

**16E1080-01 (Water)**

**Sample Date:** 05/11/16 9:10

**Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>6.1</b>			mg/L	05/11/16	05/11/16	1620336	
<b>pH (Field)</b>	Field	<b>7.58</b>			pH Units	05/11/16	05/11/16	1620336	
<b>Temperature (Field)</b>	Field	<b>22</b>			°C	05/11/16	05/11/16	1620336	

### General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	05/11/16	05/11/16	1620395	
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### Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	05/19/16	05/19/16	1621296	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	05/19/16	05/19/16	1621296	

## Reservoir Effluent Site #5

**16E1080-02 (Water)**

**Sample Date:** 05/11/16 9:00

**Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>2.85</b>			mg/L	05/11/16	05/11/16	1620336	
<b>pH (Field)</b>	Field	<b>7.86</b>			pH Units	05/11/16	05/11/16	1620336	
<b>Temperature (Field)</b>	Field	<b>19.9</b>			°C	05/11/16	05/11/16	1620336	

### Microbiology Analyses

Total Coliform	SM 9223	A			P/A	05/11/16	05/12/16	1620340	
E. Coli	SM 9223	A			P/A	05/11/16	05/12/16	1620340	
Plate Count	SM9215B	ND	1	500	CFU/ml	05/11/16	05/13/16	1620439	

### General Chemical Analyses

<b>Hardness, Total (as CaCO3)</b>	Calculated	<b>310</b>	6.6		mg/L	05/19/16	05/19/16	[CALC]	
<b>Total Filterable Residue/TDS</b>	SM 2540C	<b>720</b>	5.0	1000	mg/L	05/12/16	05/17/16	1620293	

### Metals

<b>Calcium (Ca)</b>	EPA 200.7	<b>80</b>	1.0		mg/L	05/19/16	05/19/16	1621298	
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	05/19/16	05/19/16	1621296	
<b>Magnesium (Mg)</b>	EPA 200.7	<b>26</b>	1.0		mg/L	05/19/16	05/19/16	1621298	

# Clinical Laboratory of San Bernardino, Inc.



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

Project: Standard Analysis  
Sub Project: CWPFF 2nd Weekly Compliance Sampling  
Project Manager: Mark Andersen

Work Order: 16E1080  
Received: 05/11/16 16:00  
Reported: 05/27/16

## Raw Water Site #1

**16E1080-03 (Water)**

**Sample Date:** 05/11/16 8:45

**Sampler:** D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

Cl Res Total (Field)	Field	2.85			mg/L	05/11/16	05/11/16	1620336	
pH (Field)	Field	7.56			pH Units	05/11/16	05/11/16	1620336	
Temperature (Field)	Field	22.1			°C	05/11/16	05/11/16	1620336	

### General Chemical Analyses

Hardness, Total (as CaCO <sub>3</sub> )	Calculated	320	6.6		mg/L	05/19/16	05/19/16	[CALC]	
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### Metals

Calcium (Ca)	EPA 200.7	85	1.0		mg/L	05/19/16	05/19/16	1621298	
Magnesium (Mg)	EPA 200.7	27	1.0		mg/L	05/19/16	05/19/16	1621298	

## MWD Site #6

**16E1080-04 (Water)**

**Sample Date:** 05/11/16 8:50

**Sampler:** D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

Cl Res Total (Field)	Field	2.8			mg/L	05/11/16	05/11/16	1620336	
pH (Field)	Field	8.14			pH Units	05/11/16	05/11/16	1620336	
Temperature (Field)	Field	19.2			°C	05/11/16	05/11/16	1620336	

### General Chemical Analyses

Hardness, Total (as CaCO <sub>3</sub> )	Calculated	310	6.6		mg/L	05/19/16	05/19/16	[CALC]	
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### Metals

Calcium (Ca)	EPA 200.7	77	1.0		mg/L	05/19/16	05/19/16	1621298	
Magnesium (Mg)	EPA 200.7	28	1.0		mg/L	05/19/16	05/19/16	1621298	

ND Analyte NOT DETECTED at or above the reporting limit

Gregory Nelson For Stu Styles

Client Services Manager



## Certificate of Analysis

**Report Date:** 05/18/16 09:06  
**Received Date:** 05/13/16 10:17  
**Turnaround Time:** 5 workdays

**Project:** 16E1080

**Phones:** (909) 825-7693

**Fax:** (909) 825-7696

**P.O. #:**

**Attn:** John Styles

**Client:** Clinical Laboratory of San Bernardino, Inc.  
21881 Barton Road  
Grand Terrace, CA 92313

Dear John Styles :

Enclosed are the results of analyses for samples received 5/13/2016 with the Chain of Custody document. The samples were received in good condition, at 1.8 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

---

<b>Lab ID:</b> 6E13010-01	<b>Sample ID:</b> Reservoir Effluent Site #5 / 16E1080-02	<b>Matrix:</b> Water
<b>Sampled by:</b> Client	<b>Sampled:</b> 05/11/16 09:00	

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane .....	480		10	ug/l	1	RSK-175	5/16/16	5/16/16 17:30	W6E0878	

---

<b>Lab ID:</b> 6E13010-02	<b>Sample ID:</b> Raw Water Site #1/ 16E1080-03	<b>Matrix:</b> Water
<b>Sampled by:</b> Client	<b>Sampled:</b> 05/11/16 08:45	

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane .....	5600		200	ug/l	20	RSK-175	5/16/16	5/16/16 17:10	W6E0878	



## Certificate of Analysis

## Quality Control Section

## Dissolved Gases in Water by RSK-175 - Quality Control

## Batch W6E0878 - RSK-175

## Blank (W6E0878-BLK1)

Prepared: 05/16/16 Analyzed: 05/16/16 15:51

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane .....		ND		ug/l					

## LCS (W6E0878-BS1)

Prepared: 05/16/16 Analyzed: 05/16/16 16:31

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane .....		216		ug/l	198	109	85-115		

## Duplicate (W6E0878-DUP1)

Source: 6E13010-01

Prepared: 05/16/16 Analyzed: 05/16/16 17:50

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane .....	480.....	461		ug/l				4	20



## Certificate of Analysis

**Notes:**

The Chain of Custody document is part of the analytical report.

Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.

The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).

For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

**Authorized Signature**

Contact: Brandon Gee  
(Project Manager)



ELAP # 1132  
LACSD # 10143  
NELAC #4047-002 ORELAP



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.*

**Flags for Data Qualifiers:**

ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then not detected at or above the MDL.
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable

## SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino

16E1080

GE13010

**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:**

Week Lab, Analytical & Environmental  
Analytical & Environmental Svc 14859 E Clark Ave  
Industry, CA 91745  
Phone : (626) 336-2139  
Fax: (626) 336-2634

Please email results to Project Manager: Stu Styles

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

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

Transfer File requested; log in with Element ID only [ ] Yes [x] No

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

Subcontract Comments:

**Analysis****Comments****Sample ID: Reservoir Effluent Site #5 / 16E1080-02****Sampled: 05/11/16 09:00 PS Code: 1910073-006**  
**Water WTX ID:**

Methane RSK175

Report in mg/L

Containers Supplied:

40mL Amber Vial HCl (B)

40mL Amber Vial HCl (C)

**Sample ID: Raw Water Site #1 / 16E1080-03****Sampled: 05/11/16 08:45 PS Code:**  
**Water WTX ID:**

Methane RSK175

Report in mg/L

Containers Supplied:

40mL Amber Vial HCl (A)

40mL Amber Vial HCl (B)

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time



Client		City of Lomita		System Number		Analysis Requested									
Address		24373 Walnut Avenue		1910073											
Phone #		Lomita, CA 91717		Destination Laboratory											
Fax #		(310) 325-9830		[X] Clinical Laboratory											
Project		(310) 325-3627		RWQCB Compliance											
Sub Project		Standard Analysis		No											
Comments		CWPF 2nd Weekly Compliance Sampling		ELAP #											
Sampled by		DGM		1088											
Date	Time	Sample Identification	Matrix	Type	Preserv	Total Chlorine	Iron	Manganese	Total Dissolved Solids	Color	Methane (Water) (RSK175)	Total Hardness (as CaCO3)	BACT/TC/HPC	Comments / P.S. Codes	
5/11/2016	08:50	Reservoir Influent Site #3 (1)	DW	IW	N/A	6.1	N	N		N				PH 7.58 Temp 22.0	
5/11/2016	08:50	Reservoir Effluent Site #5 (3)	DW	IW	N/A	2.55	N						X		
5/11/2016	08:50	Reservoir Effluent Site #5 (2)	DW	IW	HC.L	2.55					X	N		PH 7.86 Temp 19.9	
5/11/2016	08:55	Raw Water Site #1 (3)	DW	IW	N/A	2.06					X	N		PH 7.56 Temp 22.1	
5/11/2016	08:55	MWD Site #6 (1)	DW	IW	N/A	2.50					X	N		PH 8.14 Temp 19.2	
Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground Water, A-Air															
Type: 1-Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D-Dist.															
Relinquished By (Sign)		Print Name / Company		Date / Time		Received By (Sign)		Print Name / Company							
Diana Matejk		City of Lomita		5-11-16 / 12:00		[Signature]		J. Moreno / CSB							
[Signature]		J. Moreno / CSB		5-11-16 / 4:00		[Signature]		H. Grez / CSB							
Comments: Samples received: [Signature] Intact ( ) Custody seals Temp 9.7 ( ) F ( ) C															
Shipped Via		Fed. X		Golden State		UPS		Client		Other		Page 1 of 1			

# *Clinical Laboratory of San Bernardino, Inc.*



19 May 2016

Clinical Lab No.: 16E0492

Client User  
Lomita, City of  
24373 Walnut Avenue  
Lomita, CA 91717

Project Name: Standard Analysis  
Sub Project: Monthly Compliance

Enclosed are the results of the analyses for samples received at the laboratory on 05/04/16 . 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 cursive script that reads 'Pamela Ybarra'.

Pamela Ybarra For 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: Monthly Compliance  
Project Manager: Client User

Work Order: 16E0492  
Received: 05/04/16 15:30  
Reported: 05/19/16

## Raw Water Site #1

**16E0492-01 (Water)**

**Sample Date:** 05/04/16 7:20

**Sampler:** D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>0.05</b>		N/A	mg/L	05/04/16	05/04/16	1619394	
<b>pH (Field)</b>	Field	<b>7.74</b>		N/A	pH Units	05/04/16	05/04/16	1619394	
<b>Temperature (Field)</b>	Field	<b>22.4</b>		N/A	°C	05/04/16	05/04/16	1619394	

### Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	05/04/16	05/05/16	1619381	
E. Coli	SM 9223	A		N/A	P/A	05/04/16	05/05/16	1619381	

### General Physical Analyses

<b>Apparent Color</b>	SM 2120B	<b>10.0</b>	3.0	15	Color Units	05/04/16	05/04/16	1619410	
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### General Chemical Analyses

<b>Total Filterable Residue/TDS</b>	SM 2540C	<b>710</b>	5.0	1000	mg/L	05/05/16	05/06/16	1619342	
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### Metals

<b>Iron (Fe)</b>	EPA 200.7	<b>180</b>	100	300	ug/L	05/12/16	05/12/16	1620138	
<b>Manganese (Mn)</b>	EPA 200.7	<b>120</b>	20	50	ug/L	05/12/16	05/12/16	1620138	

## Filter Effluent (Free Chlorine) Site #2

**16E0492-02 (Water)**

**Sample Date:** 05/04/16 7:40

**Sampler:** D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

<b>Cl Res Total (Field)</b>	Field	<b>5.02</b>		N/A	mg/L	05/04/16	05/04/16	1619394	
<b>pH (Field)</b>	Field	<b>7.78</b>		N/A	pH Units	05/04/16	05/04/16	1619394	
<b>Temperature (Field)</b>	Field	<b>21.7</b>		N/A	°C	05/04/16	05/04/16	1619394	

### Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	05/04/16	05/05/16	1619381	
E. Coli	SM 9223	A		N/A	P/A	05/04/16	05/05/16	1619381	
Plate Count	SM9215B	ND	1	500	CFU/ml	05/04/16	05/06/16	1619487	HT-08

# Clinical Laboratory of San Bernardino, Inc.



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

Project: Standard Analysis  
Sub Project: Monthly Compliance  
Project Manager: Client User

Work Order: 16E0492  
Received: 05/04/16 15:30  
Reported: 05/19/16

## Filter Effluent (Total Chlorine) Site #3

16E0492-03 (Water)

Sample Date: 05/04/16 7:45 Sampler: D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

Cl Res Total (Field)	Field	4.43		N/A	mg/L	05/04/16	05/04/16	1619394	
pH (Field)	Field	7.68		N/A	pH Units	05/04/16	05/04/16	1619394	
Temperature (Field)	Field	20.3		N/A	°C	05/04/16	05/04/16	1619394	

### General Physical Analyses

Apparent Color	SM 2120B	ND	3.0	15	Color Units	05/04/16	05/04/16	1619410	
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### Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	05/12/16	05/12/16	1620138	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	05/12/16	05/12/16	1620138	

## Zone #2 Site #6

16E0492-04 (Water)

Sample Date: 05/04/16 7:55 Sampler: D G M

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

Cl Res Total (Field)	Field	2.29		N/A	mg/L	05/04/16	05/04/16	1619394	
pH (Field)	Field	8.05		N/A	pH Units	05/04/16	05/04/16	1619394	
Temperature (Field)	Field	17.5		N/A	°C	05/04/16	05/04/16	1619394	

### General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	650	5.0	1000	mg/L	05/05/16	05/06/16	1619342	
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## Reservoir Effluent Site #5

16E0492-05 (Water)

Sample Date: 05/04/16 7:50 Sampler: DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
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### Field Analyses

Cl Res Total (Field)	Field	2.3		N/A	mg/L	05/04/16	05/04/16	1619394	
pH (Field)	Field	7.69		N/A	pH Units	05/04/16	05/04/16	1619394	
Temperature (Field)	Field	20.1		N/A	°C	05/04/16	05/04/16	1619394	

### General Physical Analyses

Odor Threshold	EPA 140.1M	1	1	3	TON	05/04/16	05/04/16	1619410	
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### General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	700	5.0	1000	mg/L	05/05/16	05/06/16	1619342	
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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



## Certificate of Analysis

Project: 16E0492

Report Date: 05/13/16 09:45

Received Date: 05/06/16 10:30

Turnaround Time: 5 workdays

Phones: (909) 825-7693

Fax: (909) 825-7696

P.O. #:

Attn: John Styles

Client: Clinical Laboratory of San Bernardino, Inc.  
21881 Barton Road  
Grand Terrace, CA 92313

Dear John Styles :

Enclosed are the results of analyses for samples received 5/6/2016 with the Chain of Custody document. The samples were received in good condition, at 2.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab ID: 6E06040-01      Sample ID: Raw Water Site #1/ 16E0492-01      Matrix: Water  
Sampled by: Client      Sampled: 05/04/16 07:20

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane .....	11000		200	ug/l	20	RSK-175	5/11/16	5/11/16 17:10	W6E0651	

Lab ID: 6E06040-02      Sample ID: Reservoir Effluent Site #5 / 16E0492-05      Matrix: Water  
Sampled by: Client      Sampled: 05/04/16 07:50

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Methane .....	1600		10	ug/l	1	RSK-175	5/11/16	5/11/16 17:50	W6E0651	



## Certificate of Analysis

## Quality Control Section

## Dissolved Gases in Water by RSK-175 - Quality Control

## Batch W6E0651 - RSK-175

Blank (W6E0651-BLK1)					Prepared: 05/11/16		Analyzed: 05/11/16 16:31		
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane .....		ND		ug/l					
LCS (W6E0651-BS1)					Prepared: 05/11/16		Analyzed: 05/11/16 16:11		
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane .....		213		ug/l	198	108	85-115		
Duplicate (W6E0651-DUP1)					Prepared: 05/11/16		Analyzed: 05/11/16 18:10		
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Methane .....	1650.....	1610		ug/l				2	20



## Certificate of Analysis

**Notes:**

The Chain of Custody document is part of the analytical report.

Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.

The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).

For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

**Authorized Signature**

Contact: Brandon Gee  
(Project Manager)



ELAP # 1132  
LACSD # 10143  
NELAC #4047-002 ORELAP

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.*

**Flags for Data Qualifiers:**

ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then not detected at or above the MDL.
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable



## SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino

16E0492

CE06040

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:

Weck Lab, Analytical & Environmental  
Analytical & Environmental Svc 14859 E Clark Ave  
Industry, CA 91745  
Phone : (626) 336-2139  
Fax: (626) 336-2634

Please email results to Project Manager: Stu Styles

[ ] glaubig@clinical-lab.com [ ] ybarra@clinical-lab.com [ ☒ styles@clinical-lab.com [ ] nelson@clinical-lab.comCalifornia EDT transfer those samples with PS codes provided [ ] Yes [ ☒ NoTransfer File requested; log in with Element ID only [ ] Yes [ ☒ NoTurn Around Time [ ] 10 Days [ ☒ 5 Days [ ] Other \_\_\_ Days

Subcontract Comments:

AnalysisComments

Sample ID: Raw Water Site #1 / 16E0492-01

Sampled: 05/04/16 07:20 PS Code:

Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40mL Amber Vial w/ Na2S2O3 (B)

40mL Amber Vial w/ Na2S2O3 (C)

Sample ID: Reservoir Effluent Site #5 / 16E0492-05

Sampled: 05/04/16 07:50 PS Code:

Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

2/31

16E0492  
Chain of Custody

Client		City of Lomita		System Number		Analysis Requested													
Address		24373 Walnut Avenue Lomita, CA 91717		1910073															
Phone #	(310) 325-9830			Destination Laboratory															
Fax #	(310) 325-3627			[X] Clinical Laboratory															
Project	Standard Analysis			RWQCB Compliance															
Sub Project	Monthly Compliance			YES ELAP #															
Comments				1088															
Sampled by	DGM																		
Date	Time	Sample Identification		Matrix	Type	Preserv	Total Chlorine	Total Dissolved Solids	Iron & Manganese	E. Coli	Total Coliform	Heterotrophic Plate Count	Color	Odor	Methane (WATER) (RSK175)	Ortho T Ortho P	Comments / P.S. Codes		
5/4/2016	0720	Raw Water Site #1		GW	1W	N/A	0.5	X	X				X					PH 7.74 TEMP 22.4	
5/4/2016	"	Raw Water Site #1		GW	1W	2.7	1.1									X			
5/4/2016	"	Raw Water Site #1		GW	1W	1.7	1.1			X	X								
5/4/2016	0740	Filter Effluent (Free Chlorine) Site#2		DW	1W	1.7	5.02				X	X						PH 7.78 TEMP 21.7	
5/4/2016	0745	Filter Effluent (Total Chlorine) Site#3		DW	1W	N/A	4.23		X				X					PH 7.68 TEMP 20.3	
5/4/2016	0755	Zone #2 Site #6		DW	ID	N/A	2.21	X										PH 8.05 TEMP 17.5	
5/4/2016	0750	Reservoir Effluent Site #5		DW	ID	N/A	2.30	X						X				PH 7.64 TEMP 20.1	
5/4/2016	"	Reservoir Effluent Site #5		DW	ID	2.7	1.1									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 (5) H <sub>2</sub> SO <sub>4</sub> (6) Na <sub>2</sub> SO <sub>3</sub> (7) Cold (8) Other:																			
Relinquished By (Sign)		Print Name / Company		Date / Time		Received By (Sign)		Print Name / Company											
Daniel Matek		City of Lomita, CA		5/4/2016 / 12:30		J. Lucero		J. Lucero / CLS											
J. Lucero		J. Lucero / CLS		5-4-16 / 1530		J. Lucero		J. Lucero											
Comments: Samples received: <input checked="" type="checkbox"/> On ice <input type="checkbox"/> Intact <input type="checkbox"/> Custody seals Temp <input type="checkbox"/>																			
Shipped Via										Page 1 of 1									

## APPENDIX B

### METHANE MONITORING LOG



CITY OF LOMITA  
PUBLIC WORKS DEPARTMENT

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

MAY 2016				
DATE	DAY	METHANE HANDHELD		COMMENTS
5/1/2016	SU			
5/2/2016	M	CH <sub>4</sub> - 0%	Oxy- 20.6%	
5/3/2016	T	CH <sub>4</sub> - 0%	Oxy- 20.8%	
5/4/2016	W	CH <sub>4</sub> - 0%	Oxy- 20.9%	
5/5/2016	TH	CH <sub>4</sub> - 0%	Oxy- 20.9%	
5/6/2016	F	CH <sub>4</sub> - 0%	Oxy- 20.8%	
5/7/2016				
5/8/2016	SU	CH <sub>4</sub> - 0%	Oxy- 20.3%	
5/9/2016	M	CH <sub>4</sub> - 3%	Oxy- 20.6%	
5/10/2016	T	CH <sub>4</sub> - 0%	Oxy- 20.3%	
5/11/2016	W	CH <sub>4</sub> - 2%	Oxy- 20.8%	
5/12/2016	TH	CH <sub>4</sub> - 0%	Oxy- 20.8%	
5/13/2016	F	CH <sub>4</sub> - 0%	Oxy- 20.4%	
5/14/2016	SA	CH <sub>4</sub> - 0%	Oxy- 20.3%	
5/15/2016	SU	CH <sub>4</sub> - 0%	Oxy- 20.7%	
5/16/2016	M			
5/17/2016	T	CH <sub>4</sub> - 0%	Oxy- 20.2%	
5/18/2016	W	CH <sub>4</sub> - 0%	Oxy- 20.1%	
5/19/2016	TH	CH <sub>4</sub> - 0%	Oxy- 20.3%	
5/20/2016	F	CH <sub>4</sub> - 0%	Oxy- 20.2%	
5/21/2016	SA	CH <sub>4</sub> - 0%	Oxy- 20.3%	
5/22/2016	SU			
5/23/2016	M	CH <sub>4</sub> - 0%	Oxy- 20.2%	
5/24/2016	T	CH <sub>4</sub> - 0%	Oxy- 20.3%	
5/25/2016	W	CH <sub>4</sub> - 0%	Oxy- 20.3%	
5/26/2016	TH	CH <sub>4</sub> - 0%	Oxy- 20.4%	
5/27/2016	F	CH <sub>4</sub> - 0%	Oxy- 20.3%	
5/28/2016	SA			CWPF OFFLINE
5/29/2016	SU			CWPF OFFLINE
5/30/2016	M			CWPF OFFLINE
5/31/2016	T			CWPF OFFLINE
ND- Non Detect				
CH <sub>4</sub> - Methane				
Oxy- Oxygen				
Day Off/Holiday- Red				

AVERAGE

0.2%

## APPENDIX C

### NITRIFICATION MONITORING DATA SUMMARY



# 1MONTHLY NITRIFICATION MONITORING SUMMARY REPORT

CITY OF LOMITA, System No. 1910073 --- Month, Year: MAY 2016

#	C o d e	Sample I.D	Location	Sample Date (and Time)	Temp	pH	Total Chlorine	Free Chlorine	Total Ammonia	Free Ammonia	Nitrite	Nitrate	Coliform <sup>2</sup>	HPC	Z o n e	Comments
		Units/Others →			°C		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	P/A	CFU/ml		
1	D	S13-003	1948 W. 252 <sup>nd</sup> St	MM/DD/YYYY Xx:xx am/pm 5/4/2016	20.3	7.77	3.10	-	ND	ND	ND	ND	A	12	1	We//MWD Blend
2	D	S13-004	24632 S Moon Av	5/4/2016	19.4	7.75	3.30	-	ND	ND	ND	ND	A	2	1	We//MWD Blend
3	D	S13-008	25417 Pennsylvania Av	5/4/2016	19.6	7.85	3.80	-	ND	ND	ND	ND	A	ND	1	We//MWD Blend
4	D	A	2052 Dawn St	5/4/2016	21.0	7.25	0.81	-	ND	ND	ND	ND	A	320	1	We//MWD Blend
5	D		Reservoir	5/4/2016	19.6	7.97	2.33	-	ND	ND	ND	ND	A	ND	1	We//MWD Blend
6	D	13-1	1912 W. 259 <sup>th</sup> Pl	5/4/2016	19.9	8.18	2.30	-	ND	ND	ND	ND	A	ND	2	MWD Only
7	D	13-2	26314 S Monte Vita.	5/4/2016	18.2	8.2	2.4	-	ND	ND	ND	ND	A	ND	3	MWD Only
8	D	13-5	2500 PCH	5/4/2016	18.9	8.06	2.50	-	ND	ND	ND	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 <sup>nd</sup> St	5/11/2016	20.4	7.90	1.51	0.06	ND	ND	ND	ND	A	ND	1	We//MWD Blend
2	D	S13-004	24632 S Moon Av	5/11/2016	20.8	7.90	1.63	0.07	ND	ND	ND	ND	A	36	1	We//MWD Blend
3	D	S13-008	25417 Pennsylvania Av	5/11/2016	21.2	7.90	0.08	ND	ND	ND	ND	ND	A	3	1	We//MWD Blend
4	D	A	2052 Dawn St	5/11/2016	20.8	7.80	0.39	0.04	ND	ND	ND	ND	A	260	1	We//MWD Blend
5	D		Reservoir	5/11/2016	19.9	7.90	2.85	0.06	ND	ND	ND	ND	A	ND	1	We//MWD Blend
6	D	13-1	1912 W. 259 <sup>th</sup> Pl	5/11/2016	20.8	8.00	2.50	0.2	ND	ND	ND	ND	A	ND	2	MWD Only
7	D	13-2	26314 S Monte Vita.	5/11/2016	21.0	8.10	2.50	0.12	ND	ND	ND	ND	A	ND	3	MWD Only
8	D	13-5	2500 PCH	5/11/2016	20.3	8.10	2.50	0.18	ND	ND	ND	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 <sup>nd</sup> St	5/18/2016	21.0	7.80	1.29	0.6	ND	ND	ND	ND	A	10	1	We//MWD Blend
2	D	S13-004	24632 S Moon Av	5/18/2016	20.7	7.80	1.33	0.05	ND	ND	ND	ND	A	11	1	We//MWD Blend
3	D	S13-008	25417 Pennsylvania Av	5/18/2016	21.2	7.80	2.60	0.06	ND	ND	ND	ND	A	12	1	We//MWD Blend
4	D	A	2052 Dawn St	5/18/2016	22.4	7.70	0.32	0.08	ND	ND	ND	0.47	A	120	1	We//MWD Blend
5	D		Reservoir	5/18/2016	20.8	7.80	2.89	0.06	ND	ND	ND	ND	A	ND	1	We//MWD Blend
6	D	13-1	1912 W. 259 <sup>th</sup> Pl	5/18/2016	21.0	8.10	2.40	0.13	ND	ND	ND	ND	A	ND	2	MWD Only
7	D	13-2	26314 S Monte Vita.	5/18/2016	20.9	8.10	2.40	0.05	ND	ND	ND	ND	A	ND	3	MWD Only
8	D	13-5	2500 PCH	5/18/2016	20.1	8.00	1.70	0.05	ND	ND	ND	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 <sup>nd</sup> St	5/26/2016	21.1	7.30	0.85	0.10	ND	ND	0.13	ND	A	20	1	We//MWD Blend
2	D	S13-004	24632 S Moon Av	5/26/2016	20.2	7.92	0.63	0.00	ND	ND	0.20	ND	A	47	1	We//MWD Blend
3	D	S13-008	25417 Pennsylvania Av	5/26/2016	21.3	8.07	2.05	0.11	ND	ND	0.041	ND	A	26	1	We//MWD Blend
4	D	A	2052 Dawn St	5/26/2016	23.1	7.91	0.25	0.00	ND	ND	0.051	0.66	A	190	1	We//MWD Blend
5	D		Reservoir	5/26/2016	20.1	8.05	3.08	0.06	ND	ND	ND	ND	A	ND	1	We//MWD Blend
6	D	13-1	1912 W. 259 <sup>th</sup> Pl	5/26/2016	20.1	8.00	2.30	0.05	ND	ND	ND	ND	A	ND	2	MWD Only
7	D	13-2	26314 S Monte Vita.	5/26/2016	20.1	8.25	2.20	0.08	ND	ND	ND	ND	A	ND	3	MWD Only
8	D	13-5	2500 PCH	5/26/2016	19.1	8.37	2.30	0.05	ND	ND	0.028	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W. 252 <sup>nd</sup> St												1	We//MWD Blend
2	D	S13-004	24632 S Moon Av												1	We//MWD Blend
3	D	S13-008	25417 Pennsylvania Av												1	We//MWD Blend
4	D	A	2052 Dawn St												1	We//MWD Blend
5	D		Reservoir												1	We//MWD Blend
6	D	13-1	1912 W. 259 <sup>th</sup> Pl												2	MWD Only
7	D	13-2	26314 S Monte Vita.												3	MWD Only
8	D	13-5	2500 PCH												2	MWD Only

<sup>1</sup>Notes: Report Due to DDW by the 10<sup>th</sup> 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.