CITY OF LOMITA

Cypress Water Production Facility Monthly Status Report

March 2018

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April 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 March 1 through March 31, 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 March 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 March 2018 maintaining water levels inside the reservoir ranging from 7 feet to 10 feet. The average flow from Well No. 5 was 360 gpm and 524 gpm from MWD. The blend ratio for month was 41% Well water and 59% MWD water. See Table 1 below for production totals for the month of March 2018.

Table 1. Monthly Production Totals.

	Production for March 2018		
Well No. 5	36.73	ac-ft	11,969,167 (gallons)
MWD	53.11	ac-ft	17,307,000 (gallons)
Combined Total	89.85	ac-ft	29,276,167 (gallons)
Daily	2.90	ac-ft/day	944,392 (gallons/day)

C. OPERATIONAL INTERRUPTIONS

There were no operational interruptions during the month of March 2018. Routine and preventive maintenance was performed on various pieces of equipment as-needed. 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 597.5 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 830 mg/L, respectively.

E3-2 HARDNESS

The sampling results for the month indicate the hardness levels of the blended water to be on average 250 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 0.32 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 March 2018 in Appendix B.

E3-5 ODOR

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

E3-6 1,2,3-TRICHLOROPROPANE MONITORING

The 1,2,3-TCP levels at Well No. 5 show ND for this first quarter in 2018.

E4. NITRIFICATION MONITORING

Weekly nitrification sampling was performed during the month of March 2018 following the City's Nitrification Monitoring Plan. Refer to Appendix C for results. During this month, additional hydrant flushing was implemented due to elevated Nitrite reads.

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 = 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
3/7/2018											ND	300	ND	50	ND	15
3/14/2018	310	300	180	50	15	15	A	A	1	500	ND	300	ND	50	ND	15
3/21/2018											ND	300	ND	50	5	15
3/28/2018											ND	300	ND	50	5	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_3	Free Cl	Total Cl	Total NH_3	Free Cl	Total Cl	Total NH_3
3/7/2018	6.66	0.40	6.72	0.87	0.30	5.28	0.89	0.06	3.68	0.76
3/14/2018	7.81	0.60	8.38	1.08	0.50	5.78	0.64	0.39	3.64	0.66
3/21/2018	-	-	-	-	-	-	-	0.04	3.01	0.59
3/28/2018	7.38	0.49	5.65	0.75	0.54	4.92	0.72	0.06	3.11	0.58

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
3/7/2018			640	500-750	2	3						0.27
3/14/2018	820	830	600	500-750	2	3	360	340	250	180-250	4.0	0.36
3/21/2018			620	500-750	2	3						0.32
3/28/2018			560	500-750	2	3						-
Average			**597.5**	500-750	**2**	3						**0.32**

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 CaCO3
Methane (Water) - Methane dissolved in water

Monthly CWPF Monitoring Report – MARCH 2018
Cypress Water Production Facility
City of Lomita; System No. 1910073

Sample Locations and Parameters	Frequency	MCL/ Goal	3/7 1stWk or Mo. Result (date)	3/14 2nd Wk	3/21 3rdWk	3/28 4th Wk	5th Wk	Comments and/or Other Info.
SP1 --- Also called Well 5 Raw Water or Site#1.								
TDS, ppm	Monthly	See SP5	820 3/14	**Operations Data/Information:**				*Chlorine injected after SP1, before entering the greensand filter.
Hardness	Monthly	See SP5	360 3/14	**CWPF operation days**				
CH4, ppm	Monthly	See SP5	4.0 3/14	**On Well 5:** Daily average flow – 360 gpm; total prod. – 36.73 AF				
Iron, ppb	Monthly	See SP3	310 3/14	**Combined Well 5/MWD data:** Average Well 5: MWD blend Ratio – 41% WELL: 59% MWD; total prod.- 89.85 AF				
Manganese, ppb	Monthly	See SP3	180 3/14					
Color, units	Monthly	See SP3	15 3/14	Chlorine Dosage: N/A*				
Total Coliform, P or A	Monthly	A	A 3/14					
SP2 --- Also called Filter Effluent or Site#3.								
Total Coliform, P or A	Monthly	A	A					*Ammonia added after filter effluent
HPC,MPN/100 ml	Monthly	500	1	Ammonia Dosage: N/A*				
Free Cl Res, ppm	Continuous	Average: 7.28 ; Range: 6.66 – 7.81						
SP3 --- Also called the Site After Chloramination & Before MWD Blending or Site#4.								
Iron, ppb	Weekly	ND	ND	ND	ND	ND		
Manganese, ppb	Weekly	50	ND	ND	ND	ND		
Color	Weekly	15	ND	ND	5	5		
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.50; Range: 0.40 – 0.60 Total Cl: Average: 6.92; Range: 5.65 – 8.38 Ammonia: Average: 0.90; Range: 0.75 – 1.08						
SP4 --- Also called Reservoir Influent or the Site Well 5/MWD Water Blend Point/Phosphate Injection.								
Phosphate Injection		Phosphate Dosage: 0.63 mg/L						
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.45; Range: 0.30 – 0.54 Total Cl: Average: 5.33; Range: 4.92 – 5.78 Ammonia: Average: 0.75; Range: 0.64 – 0.89						Cl/NH3 Ratio: 7.11
SP5 --- Also called Reservoir Effluent or Site#5. SP5 discharges into Zone 1 of the distribution system.								
TDS, ppm	Weekly	SI Goal: 500-750ppm	640	600	590	560		
Hardness	Monthly	SI Goal: 180-250ppm		250				
CH4, ppm	Weekly	Goal: from PA	0.27	0.36	0.32	-		% CH4 Removal: 92.1%
Odor, units	Monthly	1	2	2	2	2		
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.15; Range: 0.06 – 0.39 Total Cl: Average: 3.33; Range: 3.11 - 3.68 Ammonia: Average: 0.63; Range: 0.58 – 0.76						Cl/NH3 Ratio: 5.24
Headspace of the Cypress Reservoir.								
[1]CH4 ppmv; using Portable Device	Daily (from log)	Goal - LEL	CH4 Average: 0.0% CH4 Range: 0%					
SP 6 --- MWD Source Feeding CWPF. Also called Zone 2 of the distribution system or Site #6.								
TDS, ppm	Monthly	-----		830				
Hardness	Monthly	-----		340				

Notes: [1]Self-Imposed (SI) Goals: TDS Goal-500-750 ppm; Hardness as CaCO3 Goal-180-250 ppm.

*****This Report is due to DDW by the 10th of the following month.**

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

APPENDIX A

LABORATORY RESULTS

Clinical Laboratory of San Bernardino, Inc.

22 March 2018 Clinical Lab No.: 18C0681

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

Project Name: Standard Analysis
Sub Project: CWPF 1st Week of March, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 03/07/18 . 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,

Stu Styles
Client Services Manager

Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPF 1st Week of March, 2018 Compliance Samplin
Project Manager: Mark Andersen

Work Order: 18C0681
Received: 03/07/18 15:40
Reported: 03/22/18

Reservoir Influent Site #3 **18C0681-01 (Water)** **Sample Date:** 03/07/18 8:50 **Sampler:** Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**6.79**		N/A	mg/L	03/07/18	03/07/18	1810113	
pH (Field)	Field	**7.53**		N/A	pH Units	03/07/18	03/07/18	1810113	
Temperature (Field)	Field	**18.1**		N/A	°C	03/07/18	03/07/18	1810113	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	03/07/18	03/07/18	1810126	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	03/12/18	03/12/18	1811021	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	03/12/18	03/12/18	1811021	

Reservoir Effluent Site #5 **18C0681-02 (Water)** **Sample Date:** 03/07/18 8:55 **Sampler:** Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**3.65**		N/A	mg/L	03/07/18	03/07/18	1810113	
pH (Field)	Field	**7.81**		N/A	pH Units	03/07/18	03/07/18	1810113	
Temperature (Field)	Field	**21.2**		N/A	°C	03/07/18	03/07/18	1810113	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	03/07/18	03/07/18	1810126	
Odor Threshold	EPA 140.1-M	**2**	1	3	TON	03/07/18	03/07/18	1810126	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	**640**	5.0	1000	mg/L	03/14/18	03/15/18	1811083	

ND Analyte NOT DETECTED at or above the reporting limit

Air TECHNOLOGY
Laboratories, Inc.

March 16, 2018

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

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

LABORATORY TEST RESULTS

Project Reference: 18C0681
Lab Number: J030903-01

Enclosed are results for sample(s) received 3/09/18 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,

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

18C0681

J030903-01

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 [✓] 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: Reservoir Effluent Site #5 / 18C0681-02 **Sampled: 03/07/18 08:55 PS Code: Water** **WTX ID:**	
01	
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
BJ Sly	03/09/18 07:30	Renny Chaparro	3/9/18 1000
Renny Chaparro	3/9/18 1055	Den Ty	3/9/18 1055

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 18C0681
Date Received: 03/09/18
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	J030903-01							
Client Sample I.D.:	Reservoir Effluent Site #5/ 18C0681-02							
Date/Time Sampled:	3/7/18 8:55							
Date/Time Analyzed:	3/12/18 11:56							
QC Batch No.:	180312GC8A1							
Analyst Initials:	AS							
Dilution Factor:	1.0							
ANALYTE	Result mg/L	RL mg/L						
Methane	0.27	0.0010						

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

Reviewed/Approved By: _____ Date 3/16/18
Mark Johnson
Operations Manager

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

QC Batch No.: 180312GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		3/12/18 9:54		3/12/18 9:15		3/12/18 9:28			
Analyst Initials:		AS		AS		AS			
Datafile:		11mar005		11mar002		11mar003			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	102	70-130%	106	70-130%	3.9	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 3/16/18
Mark J. Johnson
Operations Manager

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

Clinical Laboratory of San Bernardino, Inc.

Chain of Custody

Ø13

18C06681

Client	*City of Lomita*
Address	24373 Walnut Avenue
	Lomita, CA 91717
Phone #	(310) 325-9830
Fax #	(310) 325-3627
Project	*Standard Analysis*
Sub Project	*CWPF 1st week of March, 2018 Compliance Sampling*
Comments	*For TC/EC/BACT see weekly Distro CoC*
Sampled by	*Patrick McCue*

System Number

1910073

Destination Laboratory

[X] Clinical Laboratory

RWQCB Compliance

yes

ELAP #

1088

Analysis Requested

Date	Time	Sample Idenitification	Matrix	Type	Preserv	pH	Temp.	Total Chlorine	Iron / Manganese	Total Dissolved Solids	Color	Methane (Water) (RSK175)	Total Hardness (as CaCO3)	BACT/TC/HPC	Odor	Comments / P.S. Codes
3/7/2018	0850	Reservoir Influent Site #3	DW	IW	N/A	7.53	18.1°	4.79	X		X					
3/7/2018	0855	Reservoir Effluent Site #5	DW	IW	N/A	7.81	21.2°	3.65		X	X				X	
3/7/2018	0855	Reservoir Effluent Site #5	DW	IW	2							X				

Preservatives: (1) $Na_2S_2O_3$ (2) HCl (3) HNO_3 (4) NH_4Cl
(5) H_2SO_4 (6) Na_2SO_3 (7) Cold (8) Other:_____

Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air

Repeat, 3-Replacement, 4-Special W-Well D- Dist.

Type- 1-Routine, 2-

Relinquished By (Sign)	*Print Name / Company*	*Date / Time*		*Print Name / Company*
Patrick McCue	City of Lomita	3/7/2018	11:15	
	J. Lucero/CSB	3.7.18	3:40	CSB

Comments:

Samples received: (X) On ice ( ) Intact ( ) Custody seals Temp 6.0 ( ) F (X) C

Shipped Via | | | | *Fed X* | | *Golden State* | | *UPS* | | *Client* | | *Other*

Page 1 of 1

"Your Water and Wastewater Analysis Solution"

Clinical Laboratory of San Bernardino, Inc.

30 March 2018

Clinical Lab No.: 18C1335

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

Project Name: Standard Analysis
Sub Project: CWPF Monthly Compliance / 2nd Week of March, 2018

Enclosed are the results of the analyses for samples received at the laboratory on 03/14/18 . 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,

Stu Styles
Client Services Manager

Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPF Monthly Compliance / 2nd Week of March, 20
Project Manager: Mark Andersen

Work Order: 18C1335
Received: 03/14/18 15:45
Reported: 03/30/18

Raw Water Site #1 **18C1335-01 (Water)** **Sample Date:** 03/14/18 8:05 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	0		N/A	mg/L	03/14/18	03/14/18	1811132	
pH (Field)	Field	**7.69**		N/A	pH Units	03/14/18	03/14/18	1811132	
Temperature (Field)	Field	**21.2**		N/A	°C	03/14/18	03/14/18	1811132	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	03/14/18	03/15/18	1811124	
E. Coli	SM 9223	A		N/A	P/A	03/14/18	03/15/18	1811124	
Plate Count	SM9215B	**98**	1	500	CFU/ml	03/14/18	03/16/18	1811174	HT-08
General Physical Analyses									
Apparent Color	SM 2120BM	**15.0**	3.0	15	Color Units	03/14/18	03/14/18	1811127	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	**360**	6.6	N/A	mg/L	03/19/18	03/19/18	[CALC]	
Total Filterable Residue/TDS	SM 2540C	**820**	5.0	1000	mg/L	03/19/18	03/20/18	1812013	
Metals									
Calcium (Ca)	EPA 200.7	**95**	1.0	N/A	mg/L	03/19/18	03/19/18	1812009	
Iron (Fe)	EPA 200.7	**310**	100	300	ug/L	03/20/18	03/20/18	1812028	
Magnesium (Mg)	EPA 200.7	**30**	1.0	N/A	mg/L	03/19/18	03/19/18	1812009	
Manganese (Mn)	EPA 200.7	**180**	20	50	ug/L	03/20/18	03/20/18	1812028	
Volatile Organic Analyses / 1,2,3-TCP									
1,2,3-Trichloropropane	SRL 524M-TCP	ND	0.0050	0.005	ug/L	03/20/18	03/20/18	1812043	

Filter Effluent (Free Chlorine) Site #2 **18C1335-02 (Water)** **Sample Date:** 03/14/18 8:10 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**9.8**		N/A	mg/L	03/14/18	03/14/18	1811132	
pH (Field)	Field	**7.76**		N/A	pH Units	03/14/18	03/14/18	1811132	
Temperature (Field)	Field	**20.5**		N/A	°C	03/14/18	03/14/18	1811132	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	03/14/18	03/15/18	1811124	
E. Coli	SM 9223	A		N/A	P/A	03/14/18	03/15/18	1811124	
Plate Count	SM9215B	**1**	1	500	CFU/ml	03/14/18	03/16/18	1811174	HT-08

Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPF Monthly Compliance / 2nd Week of March, 20
Project Manager: Mark Andersen

Work Order: 18C1335
Received: 03/14/18 15:45
Reported: 03/30/18

Filter Effluent (Total Chlorine) Site #3 **18C1335-03 (Water)** **Sample Date:** 03/14/18 8:15 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**8.2**		N/A	mg/L	03/14/18	03/14/18	1811132	
pH (Field)	Field	**7.89**		N/A	pH Units	03/14/18	03/14/18	1811132	
Temperature (Field)	Field	**22**		N/A	°C	03/14/18	03/14/18	1811132	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	03/14/18	03/14/18	1811127	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	03/20/18	03/20/18	1812028	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	03/20/18	03/20/18	1812028	

Zone #2 Site #6 **18C1335-04 (Water)** **Sample Date:** 03/14/18 8:25 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**1.99**		N/A	mg/L	03/14/18	03/14/18	1811132	
pH (Field)	Field	**8.24**		N/A	pH Units	03/14/18	03/14/18	1811132	
Temperature (Field)	Field	**16.3**		N/A	°C	03/14/18	03/14/18	1811132	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	**340**	6.6	N/A	mg/L	03/19/18	03/19/18	[CALC]	
Total Filterable Residue/TDS	SM 2540C	**830**	5.0	1000	mg/L	03/19/18	03/20/18	1812013	
Metals									
Calcium (Ca)	EPA 200.7	**89**	1.0	N/A	mg/L	03/19/18	03/19/18	1812009	
Magnesium (Mg)	EPA 200.7	**29**	1.0	N/A	mg/L	03/19/18	03/19/18	1812009	

Lomita, City of	Project: Standard Analysis	Work Order:	18C1335
24373 Walnut Avenue	Sub Project: CWPF Monthly Compliance / 2nd Week of March, 20	Received:	03/14/18 15:45
Lomita CA, 91717	Project Manager: Mark Andersen	Reported:	03/30/18

Reservoir Effluent Site #5 **18C1335-05 (Water)** **Sample Date:** 03/14/18 8:25 **Sampler:** DGM

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**3.79**		N/A	mg/L	03/14/18	03/14/18	1811132	
pH (Field)	Field	**8.08**		N/A	pH Units	03/14/18	03/14/18	1811132	
Temperature (Field)	Field	**18.4**		N/A	°C	03/14/18	03/14/18	1811132	
General Physical Analyses									
Odor Threshold	EPA 140.1-M	**2**	1	3	TON	03/14/18	03/14/18	1811127	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	**250**	6.6	N/A	mg/L	03/19/18	03/19/18	[CALC]	
Total Filterable Residue/TDS	SM 2540C	**600**	5.0	1000	mg/L	03/19/18	03/20/18	1812013	
Metals									
Calcium (Ca)	EPA 200.7	**62**	1.0	N/A	mg/L	03/19/18	03/19/18	1812009	
Magnesium (Mg)	EPA 200.7	**23**	1.0	N/A	mg/L	03/19/18	03/19/18	1812009	

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

Post Office Box 329 San Bernardino, CA 92402 (909) 825-7693 Fax (909) 825-7696 ELAP Number 1088

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1

Work Order: 18C1335
Report Date: 03/30/2018
Analyzing Lab: Clinical Laboratory of San Bernardino, Inc. ELAP 1088

LOMITA-CITY, WATER DEPT. User ID: 4TH System: 1910073

WELL 05 Station No.: 1910073-003 Sampled: 180314 08:05

COLOR	Result: 15.0	Units: UNITS	Entry No.: 00081	Analyzed: 180314
TOTAL HARDNESS (AS CACO3)	Result: 360	Units: MG/L	Entry No.: 00900	Analyzed: 180319
CALCIUM	Result: 95	Units: MG/L	Entry No.: 00916	Analyzed: 180319
MAGNESIUM	Result: 30	Units: MG/L	Entry No.: 00927	Analyzed: 180319
IRON	Result: 310	Units: UG/L	Entry No.: 01045	Analyzed: 180320
MANGANESE	Result: 180	Units: UG/L	Entry No.: 01055	Analyzed: 180320
TOTAL DISSOLVED SOLIDS	Result: 820	Units: MG/L	Entry No.: 70300	Analyzed: 180320
1,2,3-TRICHLOROPROPANE	Result: ND	Units: UG/L	Entry No.: 77443	Analyzed: 180320

Post Office Box 329 San Bernardino, CA 92402 (909) 825-7693 Fax (909) 825-7696 ELAP Number 1088

Air TECHNOLOGY
Laboratories, Inc.

March 23, 2018

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

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

LABORATORY TEST RESULTS

Project Reference: 18C1335
Lab Number: J031605-01/02

Enclosed are results for sample(s) received 3/16/18 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,

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

18C1335

J031605-01/02

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 / 18C1335-01 **Sampled: 03/14/18 08:05 PS Code:** **Water** **WTX ID:**	
81	
Methane RSK175	Report in mg/L
Containers Supplied:	
40ml Amber Vial (B) 40ml Amber Vial (C)	
Sample ID: Reservoir Effluent Site #5 / 18C1335-05 **Sampled: 03/14/18 08:25 PS Code:** **Water** **WTX ID:**	
82	
Methane RSK175	Report in mg/L
Containers Supplied:	
40ml Amber Vial (B) 40ml Amber Vial (C)	

4°C

Released By	Date / Time	Received By	Date / Time
03/16/18 07:15		3/16/18 8:00	
3/16/18 12:23		3/16/18 12:23	

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 18C1335
Date Received: 03/16/18
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	J031605-01		J031605-02					
Client Sample I.D.:	Raw Water Site #1 / 18C1335-01		Reservoir Effluent Site #5 / 18C1335-05					
Date/Time Sampled:	3/14/18 8:05		3/14/18 8:25					
Date/Time Analyzed:	3/20/18 12:27		3/20/18 12:14					
QC Batch No.:	180319GC8A3		180319GC8A3					
Analyst Initials:	AS		AS					
Dilution Factor:	1.0		1.0					
ANALYTE	Result mg/L	RL mg/L	Result mg/L	RL mg/L				
Methane	4.0	0.0010	0.36	0.0010				

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

Reviewed/Approved By: _____ Date 3-22-18
Mark Johnson
Operations Manager

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

QC Batch No.: 180319GC8A3
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		3/19/18 16:30		3/19/18 15:39		3/19/18 15:52			
Analyst Initials:		AS		AS		AS			
Datafile:		19mar038		19mar035		19mar036			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	101	70-130%	96	70-130%	5.0	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 3-22-18
Mark J. Johnson
Operations Manager

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

Clinical Laboratory of San Bernardino, Inc.

2|3

Chain of Custody

18C1335

Client	*City of Lomita*	System Number	Analysis Requested
Address	24373 Walnut Avenue	**1910073**	
	Lomita, CA 91717	*Destination Laboratory*	
Phone #	(310) 325-9830	[X] Clinical Laboratory	
Fax #	(310) 325-3627	*RWQCB Compliance*	
Project	*Standard Analysis*	*YES*	
Sub Project	*CWPF Monthly Compliance Samples; 2nd week of March, 2018*	ELAP #	
Comments		**1088**	
Sampled by	*DGM*		

Date	Time	Sample Idenitification	Matrix	Type	Preserv	Temp.	pH	Total Chlorine	Total Dissolved Solids	Iron & Manganese	E. Coli	Total Coliform	Hetetrophic Plate Count	Color	Odor	Methane (WATER) (RSK175)	Hardness	TCP
3/14/2018	0805	Raw Water Site #1	GW	1W	N/A	21.2°	7.69	Ø	X	X				X				X
3/14/2018	0805	Raw Water Site #1	GW	1W	1, 2, 7						X	X	X			X	X	
3/14/2018	0810	Filter Effluent (Free Chlorine) Site#2	DW	1W	1,7	20.5°	7.76	9.8			X	X	X					
3/14/2018	0815	Filter Effluent (Total Chlorine) Site#3	DW	1W	N/A	22.5°	7.89	8.2		X				X				
3/14/2018	0825	Zone #2 Site #6	DW	1D	N/A	16.3°	8.24	1.99	X								X	
3/14/2018	8:25AM	Reservoir Effluent Site #5	DW	1D	N/A	18.4°	8.08	3.79	X						X		X	
3/14/2018	8:25AM	Reservoir Effluent Site #5	DW	1D	2,7											X		

Preservatives: (1) $Na_2S_2O_3$ (2) HCl (3) HNO3 (4) NH4Cl (5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:_____

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*
Patrick McCue	City of Lomita, CA	3/14/2018 / 11:30	J. Lucero/ASB	
Patrick McCue	J. Lucero/ASB	3.14.18 / 3:45		

Comments: Samples received: (X) On ice ( ) Intact ( ) Custody seals Temp 5.9 ( ) F (X) C

Shipped Via | | | | *Fed X* | | *Golden State* | | *UPS* | | *Client* | | *Other* _____ *Page _1_ of _1_*

"Your Water and Wastewater Analysis Solution"

Clinical Laboratory of San Bernardino, Inc.

06 April 2018 Clinical Lab No.: 18C1972

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

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

Enclosed are the results of the analyses for samples received at the laboratory on 03/22/18 . 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,

Stu Styles
Client Services Manager

Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPF 3rd Week of March, 2018 Compliance Samplir
Project Manager: Mark Andersen

Work Order: 18C1972
Received: 03/22/18 15:30
Reported: 04/06/18

Reservoir Influent Site #3 **18C1972-01 (Water)** **Sample Date:** 03/22/18 10:15 **Sampler:** David Huerta

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**7.5**		N/A	mg/L	03/22/18	03/22/18	1812134	
pH (Field)	Field	**7.52**		N/A	pH Units	03/22/18	03/22/18	1812134	
Temperature (Field)	Field	**20.9**		N/A	°C	03/22/18	03/22/18	1812134	
General Physical Analyses									
Apparent Color	SM 2120BM	**5.0**	3.0	15	Color Units	03/22/18	03/22/18	1812140	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	03/26/18	03/26/18	1813026	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	03/26/18	03/26/18	1813026	

Reservoir Effluent Site #5 **18C1972-02 (Water)** **Sample Date:** 03/22/18 10:10 **Sampler:** David Huerta

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**3.9**		N/A	mg/L	03/22/18	03/22/18	1812134	
pH (Field)	Field	**7.55**		N/A	pH Units	03/22/18	03/22/18	1812134	
Temperature (Field)	Field	**18.2**		N/A	°C	03/22/18	03/22/18	1812134	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	03/22/18	03/22/18	1812140	
Odor Threshold	EPA 140.1-M	**2**	1	3	TON	03/22/18	03/22/18	1812140	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	**590**	5.0	1000	mg/L	03/29/18	04/03/18	1813149	

ND Analyte NOT DETECTED at or above the reporting limit

Air TECHNOLOGY
Laboratories, Inc.

March 30, 2018

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

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

LABORATORY TEST RESULTS

Project Reference: 18C1972
Lab Number: J032302-01

Enclosed are results for sample(s) received 3/23/18 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,

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

18C1972

J032302-01

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 [√] 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: Reservoir Effluent Site #5 / 18C1972-02 **Sampled: 03/22/18 10:10 PS Code: Water** **WTX ID:**	
01	
Methane RSK175	Report in mg/L
Containers Supplied:	
40ml Amber Vial (B) 40ml Amber Vial (C)	

4°C

Released By	Date / Time	Received By	Date / Time
Brad Shy	03/23/18 07:30	M Clark	3/23/18 8:00
M Clark	3/23/18 9:38	[illegible]	3/23/18 0938

Client:	**Clinical Laboratory**
Attn:	**Stu Styles**
Project Name:	**NA**
Project No.:	**18C1972**
Date Received:	**03/23/18**
Matrix:	**Water**
Reporting Units:	**mg/L**

RSK175

Lab No.:	**J032302-01**							
Client Sample I.D.:	**Reservoir Effluent Site #5 /18C1972-02**							
Date/Time Sampled:	**3/22/18 10:10**							
Date/Time Analyzed:	**3/29/18 10:32**							
QC Batch No.:	**180328GC8A2**							
Analyst Initials:	**AS**							
Dilution Factor:	**1.0**							
ANALYTE	**Result mg/L**	**RL mg/L**						
Methane	0.32	0.0010						

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

Reviewed/Approved By: _____ **Date** 3/30/18

Mark Johnson
Operations Manager

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

QC Batch No.: 180328GC8A2
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		3/28/18 13:17		3/29/18 9:15		3/29/18 9:28			
Analyst Initials:		AS		AS		AS			
Datafile:		28mar019		28mar037		28mar038			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	102	70-130%	110	70-130%	7.4	<30

PQL = Practical Quantitation Limit
ND = Not Detected (Below RL).
RL = PQL X Dilution Factor

Reviewed/Approved By: _____ Date: 3/30/18
Mark J. Johnson
Operations Manager

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

Clinical Laboratory of San Bernardino, Inc.

Chain of Custody

18C1972

Client	*City of Lomita*	System Number	Analysis Requested
Address	24373 Walnut Avenue	**1910073**	
	Lomita, CA 91717	*Destination Laboratory*	
Phone #	(310) 325-9830	[X] Clinical Laboratory	
Fax #	(310) 325-3627	*RWQCB Compliance*	
Project	*Standard Analysis*	*yes*	
Sub Project	*CWPF 3rd week of March, 2018 Compliance Sampling*	ELAP #	
Comments	*For TC/EC/BACT see weekly Distro CoC*	**1088**	
Sampled by	David Huerta ~~Patrick McCue~~		

Date	Time	Sample Idenitification	Matrix	Type	Preserv	pH	Temp.	Total Chlorine	Iron / Manganese	Total Dissolved Solids	Color	Methane (Water) (RSK175)	Total Hardness (as CaCO3)	BACT/TC/HPC	Odor	Comments / P.S. Codes
3/22/2018	10:15	Reservoir Influent Site #3	DW	1W	N/A	7.52	20.9	7.5	X		X					
3/22/2018	10:10	Reservoir Effluent Site #5	DW	1W	N/A	7.55	18.2	3.9		X	X				X	~~P~~ 18.2° PH 7.55
3/22/2018	10:10	Reservoir Effluent Site #5	DW	1W	2	7.55	18.2	3.9				X				

Preservatives: (1) $Na_2S_2O_3$ (2) HCl (3) HNO_3 (4) NH_4Cl (5) H_2SO_4 (6) Na_2SO_3 (7) Cold (8) Other:_____

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*		*Print Name / Company*
~~Patrick McCue~~ David Huerta	City of Lomita	3/22/2018	12:30 PM	CLSB
	CLSB	3/22/18	3:35	CLSB

Comments:

Samples received: ( ) On ice ( ) Intact ( ) Custody seals Temp 5 ( ) F ( ) C

Shipped Via | | | [ ] *Fed X* [ ] *Golden State* [ ] *UPS* [ ] *Client* [ ] *Other* _____ *Page 1 of 1*

Clinical Laboratory of San Bernardino, Inc.

06 April 2018 Clinical Lab No.: 18C2405

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

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

Enclosed are the results of the analyses for samples received at the laboratory on 03/28/18 . 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,

Stu Styles
Client Services Manager

Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPF 4th Week of March, 2018 Compliance Samplir
Project Manager: Mark Andersen

Work Order: 18C2405
Received: 03/28/18 15:30
Reported: 04/06/18

Reservoir Influent Site #3 **18C2405-01 (Water)** **Sample Date:** 03/28/18 7:45 **Sampler:** Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**6.75**		N/A	mg/L	03/28/18	03/28/18	1813144	
pH (Field)	Field	**7.77**		N/A	pH Units	03/28/18	03/28/18	1813144	
Temperature (Field)	Field	**20.1**		N/A	°C	03/28/18	03/28/18	1813144	
General Physical Analyses									
Apparent Color	SM 2120BM	**5.0**	3.0	15	Color Units	03/28/18	03/28/18	1813161	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	03/30/18	03/30/18	1813179	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	03/30/18	03/30/18	1813179	

Reservoir Effluent Site #5 **18C2405-02 (Water)** **Sample Date:** 03/28/18 8:10 **Sampler:** Patrick McCue

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	**3.41**		N/A	mg/L	03/28/18	03/28/18	1813144	
pH (Field)	Field	**7.91**		N/A	pH Units	03/28/18	03/28/18	1813144	
Temperature (Field)	Field	**17.7**		N/A	°C	03/28/18	03/28/18	1813144	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	03/28/18	03/28/18	1813161	
Odor Threshold	EPA 140.1-M	**2**	1	3	TON	03/28/18	03/28/18	1813161	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	**560**	5.0	1000	mg/L	03/29/18	04/04/18	1813176	

ND Analyte NOT DETECTED at or above the reporting limit

Clinical Laboratory of San Bernardino, Inc.

013

Chain of Custody

18C 2405

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	*CWPF 4th week of March, 2018 Compliance Sampling*	*yes*	
Comments	*For TC/EC/BACT see weekly Distro CoC*	ELAP #	
Sampled by	*Patrick McCue*	**1088**	

Date	Time	Sample Idenitification	Matrix	Type	Preserv	pH	Temp.	Total Chlorine	Iron / Manganese	Total Dissolved Solids	Color	Methane (Water) (RSK175)	Total Hardness (as CaCO3)	BACT/TC/HPC	Odor	Comments / P.S. Codes
3/28/2018	0745	Reservoir Influent Site #3	DW	1W	N/A	7.77	20.1°	6.75	X		X					
3/28/2018	0816	Reservoir Effluent Site #5	DW	1W	N/A	7.91	17.7°	3.41		X	X				X	
3/28/2018	0810	Reservoir Effluent Site #5	DW	1W	2							X				

Preservatives: (1) $Na_2S_2O_3$ (2) HCl (3) HNO3 (4) NH4Cl (5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:_____

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*	*Print Name / Company*
Patrick McCue	City of Lomita	3/28/2018 12:30	J. Lucero/CLSB
Patrick McCue	J. Lucero/CLSB	3-28-18 / 3:30	Jeanette Hernandez / CLSB

Comments:

Samples received: ( ) On ice ( ) Intact ( ) Custody seals Temp 6.0 ( ) F (X) C

Shipped Via | | | | *Fed X* | | *Golden State* | | *UPS* | | *Client* | | *Other* _____ *Page _1_ of _1_*

"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

MARCH 2018				
DATE	**DAY**	**METHANE HANDHELD**		**COMMENTS**
3/1/2018	Thu	CH_4- 0%	Oxy- 19.1%	
3/2/2018	Fri	CH_4- 0%	Oxy- 19.1%	
3/3/2018	Sat	CH_4- 0%	Oxy- 19.2%	
3/4/2018	Sun	CH_4- 0%	Oxy- 19.2%	
3/5/2018	Mon	CH_4- 0%	Oxy- 19.3%	
3/6/2018	Tue	CH_4- 0%	Oxy- 20.2%	
3/7/2018	Wed	CH_4- 0%	Oxy- 18.9%	
3/8/2018	Thu	CH_4- 0%	Oxy- 19.2%	
3/9/2018	Fri	CH_4- 0%	Oxy- 19.2%	
3/10/2018	Sat	CH_4- 0%	Oxy- 19.1%	
3/11/2018	Sun	CH_4- 0%	Oxy- 19.1%	
3/12/2018	Mon	CH_4- 0%	Oxy- 18.9%	
3/13/2018	Tue	CH_4- 0%	Oxy- 19.3%	
3/14/2018	Wed	CH_4- 0%	Oxy- 19.1%	
3/15/2018	Thu	CH_4- 0%	Oxy- 20.2%	
3/16/2018	Fri	CH_4- 0%	Oxy- 19.5%	
3/17/2018	Sat	CH_4- 0%	Oxy- 19.1%	
3/18/2018	Sun	CH_4- 0%	Oxy- 19.1%	
3/19/2018	Mon	CH_4- 0%	Oxy- 19.3%	
3/20/2018	Tue	CH_4- 0%	Oxy- 19.3%	
3/21/2018	Wed	CH_4- 0%	Oxy- 19.8%	
3/22/2018	Thu	CH_4- 0%	Oxy- 18.9%	
3/23/2018	Fri	CH_4- 0%	Oxy- 19.5%	
3/24/2018	Sat	CH_4- 0%	Oxy- 19.2%	
3/25/2018	Sun	CH_4- 0%	Oxy- 18.9%	
3/26/2018	Mon	CH_4- 0%	Oxy- 19.2%	
3/27/2018	Tue	CH_4- 0%	Oxy- 20.2%	
3/28/2018	Wed	CH_4- 0%	Oxy- 20.9%	
3/29/2018	Thu	CH_4- 0%	Oxy- 19.2%	
3/30/2018	Fri	CH_4- 0%	Oxy- 19.2%	
3/31/2018	Sat	CH_4- 0%	Oxy- 19.2%	

ND- Non Detect
CH_4- Methane
Oxy- Oxygen
Day Off/Holiday- Red

APPENDIX C

NITRIFICATION MONITORING DATA SUMMARY

[1] MONTHLY NITRIFICATION MONITORING SUMMARY REPORT

CITY OF LOMITA, System No. 1910073 --- Month, Year: **March 2018**

#	Code	Sample ID	Location	Sample Date	Temp	pH	Total Chlorine	Free Chlorine	Total Ammonia	Free Ammonia	Nitrite[3]	Nitrate	Coliform[2]	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	3/7/2018	17.0	7.91	3.20	0.10	0.56	0.11	0.010	ND	A	8	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	3/7/2018	17.5	7.62	1.79	0.05	0.34	0.13	0.070	0.47	A	ND	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	3/7/2018	17.6	7.83	3.30	0.17	0.58	0.07	0.017	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	3/7/2018	16.0	8.34	2.60	0.13	0.48	0.04	0.007	0.58	A	1	1	Well/MWD Blend
5	D		Reservoir SP5	3/7/2018	21.2	7.81	3.65	0.02	0.81	0.00	0.010	ND	A	11	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	3/7/2018	16.0	8.40	2.70	0.04	0.50	0.11	0.008	0.53	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	3/7/2018	16.2	8.54	2.40	0.01	0.52	0.08	0.007	0.52	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	3/7/2018	15.4	8.26	2.30	0.06	0.51	0.07	0.005	0.52	A	19	2	MWD Only
1	D	S13-003	1948 W 252nd St	3/14/2018	17.8	7.86	3.10	0.15	0.58	0.09	0.026	ND	A	ND		Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	3/14/2018	18.3	7.68	1.74	0.04	0.30	0.12	0.048	0.49	A	2		Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	3/14/2018	19.4	7.89	3.20	0.03	0.55	0.05	0.031	0.41	A	ND		Well/MWD Blend
4	D	A	2052 Dawn St	3/14/2018	17.3	7.45	2.50	0.05	0.49	0.17	0.010	0.55	A	75		Well/MWD Blend
5	D		Reservoir SP5	3/14/2018	19.3	7.96	4.00	0.05	0.74	0.00	0.007	ND	A	ND		Well/MWD Blend
6	D	S13-001	1912 W 259th St	3/14/2018	16.6	8.29	2.40	0.04	0.50	0.08	0.012	0.51	A	ND		MWD Only
7	D	S13-002	26314 S Monte Vista Ave	3/14/2018	16.7	8.33	2.40	0.09	0.45	0.06	0.014	0.51	A	ND		MWD Only
8	D	S13-005	2500 PCH	3/14/2018	17.9	8.30	2.30	0.18	0.46	0.11	0.011	0.51	A	ND		MWD Only
1	D	S13-003	1948 W 252nd St	3/22/2018	18.9	7.53	2.80	0.03	0.47	0.00	0.017	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	3/22/2018	18.6	7.50	1.23	0.03	0.25	0.00	0.158	0.5	A	ND	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	3/22/2018	19.9	7.73	3.00	0.08	0.47	0.00	0.015	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	3/22/2018	19.0	7.16	0.50	0.00	0.15	0.06	0.214	0.57	A	52	1	Well/MWD Blend
5	D		Reservoir SP5	3/22/2018	18.0	7.71	3.50	0.09	0.53	0.00	0.005	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	3/22/2018	17.1	8.09	2.20	0.13	0.50	0.00	0.012	0.42	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	3/22/2018	17.1	8.11	2.40	0.17	0.51	0.02	0.018	0.44	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	3/22/2018	17.3	8.07	2.40	0.02	0.48	0.00	0.013	0.43	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St	3/28/2018	17.9	7.60	2.80	0.04	0.41	0.00	0.005	ND	A	2	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	3/28/2018	18.3	7.55	1.43	0.11	0.20	0.00	0.090	0.42	A	2	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	3/28/2018	19.1	7.88	3.20	0.14	0.48	0.00	0.007	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	3/28/2018	18.6	7.38	0.58	0.04	0.11	0.01	0.130	0.47	A	46	1	Well/MWD Blend
5	D		Reservoir SP5	3/28/2018	17.7	7.91	3.41	0.06	0.60	0.00	0.005	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	3/28/2018	15.7	8.10	2.40	0.06	0.45	0.07	0.001	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	3/28/2018	16.4	7.89	2.30	0.10	0.48	0.01	0.001	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	3/28/2018	18.2	8.14	2.20	0.04	0.52	0.04	0.000	ND	A	4	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

[1]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).

[2]Coliform results are part of weekly Bacti sampling results.

[3]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.