CITY OF LOMITA



Cypress Water Production Facility Monthly Status Report

December 2017

TABLE OF CONTENTS

COVER LETTER	
A. BACKGROUND 2	
B. WELL PRODUCTION AND OPERATIONS 2	
C. OPERATIONAL INTERRUPTIONS	
D. SAMPLE LOCATIONS	
E. WATER QUALITY MONITORING	
E1. IRON, MANGANESE AND COLOR3	
E2. FREE AND TOTALCHLORINE RESIDUALS3	
E3. TOTAL DISSOLVED SOLIDS (TDS), ODOR, HARDNESS AND METHANE3	
E3-1 TOTAL DISSOLVED SOLIDS (TDS)3	
E3-2 HARDNESS 3	
E3-3 DISSOLVED MATHANE (IN WATER)4	
E3-4 METHANE (IN AIR)4	
E3-5 ODOR4	
E4. NITRIFICATION MONITORING4	
E5. Chromium 64	
F. TABLES	-6

CITY COUNCIL

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



ADMINISTRATION

RYAN SMOOT
CITY MANAGER

January 10, 2018

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

<u>Subject: System No. 1910073 - Monthly Report for the Cypress Water Production Facility (CWPF) for the period of December 1 through December 31, 2017.</u>

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 December 2017.

If you should have any questions or concerns, please contact me at 310-325-7110 Ext. 124.

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

The CWPF operated continuously during the month of December 2017 maintaining water levels inside the reservoir ranging from 7 feet to 10 feet. The average flow from Well No. 5 was 380 gpm and 365 gpm from MWD. The blend ratio for month was 52% Well water and 48% MWD water. See Table 1 below for production totals for the month of December 2017.

Table 1. Monthly Production Totals.

	Pı	roduction f	or December 2017
Well No. 5	50.38		16,415,451 (gallons)
· MWD-	46.81	acift - +	15,252,000 (gallons)
Combined Total	97.19	ac-ft	31,667,451 (gallons)
Daily	3.14	ac-ft/day	1,021,531 (gallons/day)

C. OPERATIONAL INTERRUPTIONS

There were no operational interruptions during the month of December 2017. 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 below the MCL. Iron and Manganese in the raw water (SP1) for the month were below and 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 557.5 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 250 mg/L, respectively.

E3-2 HARDNESS

The sampling results for the month indicate the hardness levels of the blended water to be on average 260 mg/L. This hardness level is slightly higher than 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 0.43 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 December 2017 in Appendix B.

E3-5 ODOR

The odor levels at the CWPF effluent averaged 2.3 units for the month.

E4. NITRIFICATION MONITORING

Weekly nitrification sampling was performed during the month of December 2017 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.

E5. Chromium 6

During the month of December 2017, a sample from Well No. 5 was taken and analyzed for Chromium 6. Results show *ND* for this constituent.

F. TABLES

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

		SP1, V	Vell Raw	Water	Discha	irge		Pres	Comb sure F ffluen	Filter	SP3, /		nloramin reservoir		tatic mi	xer;
Date, week of	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
12/6/2017											ND	300	ND	50	5	15
12/13/2017	200	300	170	50	10	15	Α	Α	Α	500	ND	300	ND	50	7.5	15
12/20/2017											ND	300	ND	50	ND	15
12/27/2017											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,	SP2		SP3			SP4			SP5	
week of	Free CI	Free CI	Total CI	Total NH ₃	Free CI	Total CI	Total NH ₃	Free CI	Total CI	Total NH ₃
12/6/2017	4.02	-	6.42	.=	0.52	4.44	0.71	0.08	3.14	0.63
12/13/2017	5.24	-	5.40	120	0.50	5.19	1.15	0.08	3.57	0.87
12/20/2017	4.37	-	4.33		0.61	4.27	0.89	0.07	3.43	0.76
12/27/2017	4.06	-	5.40	-	0.40	4.19	0.85	0.31	3.32	0.81

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

		TD	S, mg/L		T.C).N.		Hardr	ness, m	g/L		thane r), mg/L
Date, week of	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
12/6/2017			570	500-750	2	3						0.32
12/13/2017	820	250	550	500-750	3	3	390	110	260	180-250	4.1	0.47
12/20/2017			560	500-750	2	3						0.43
12/27/2017			550	500-750	2	3						0.49
Average			557.5	500-750	2.3	3						0.43

Notes:

Monthly- <u>Orange</u>; Weekly- <u>Yellow</u> 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 – DECEMBER 2017 Cypress Water Production Facility City of Lomita; System No. 1910073

	T	THE RESERVE OF THE PARTY OF THE		STORING TO A STATE OF THE STATE	No. 19100			
Sample Locations	Frequency	MCL/	12/6	12/13	12/20	12/27	-	Comments
and Parameters		Goal	1stWk	2 nd Wk	3rdWk	4 th Wk	5 th Wk	and/or
			or Mo.	1				Other Info.
	1		Result	1				
			The second second					
CD1 Alon colled	Mall F Day	. \A/-4	(date)					
SP1 Also called		See SP5						
TDS, ppm	Monthly	See SP5	820 12/13	Operations	Data/Inforn	nation:		*Chlorine injected aft SP1, before entering
Hardness	Monthly	See SP5	390	CWPF opera	tion days			the greensand filter.
			12/13	On Wall E. I	Dalle a	200		
CH4, ppm	Monthly	See SP5	4.1	- 50.38 AF	Daily average f	10w – 380 gpn	i; total prod.	
Iron, ppb	Monthly	See SP3	12/13 200	Combined V	Vell 5/MWD da	ata: Average V	Vell 5: MWD	
ποτι, ρρυ	Wichting	0000.0	12/13	blend Ratio - 97.19 AF	-52% WELL: 4	18% MWD; tot	al prod	
Manganese, ppb	Monthly	See SP3	170	97.19 AF				
<u> </u>		0 000	12/13	Chlorine Do	sage: N/A*			
Color, units	Monthly	See SP3	10	Second of the second of the second of the second of				
Total Coliform, P or A	Monthly	Α	12/13 A					
			12/13					
SP2 Also called	Filter Efflu	ent or Si	te#3.					
Total Coliform, P or A	Monthly	Α	A		TE COLUMN VALUE OF THE PARTY OF			*Ammonia added after
HPC,MPN/100 ml	Monthly	500	Α	Ammonia D	osage: N/A*			filter effluent
Free Cl Res, ppm	Continuous	Average:	4.42 ; Ran	ge: 4.02 -	5.24			
SP3 Also called	the Site Af	ter Chlor	aminatio	a & Before	MWD Ble	nding or	Site#4	
Iron, ppb	Weekly	ND	ND	ND	ND	ND	Olton Ti	
Manganese, ppb		50						
vialigaliese, ppb	vveekiy	50	ND	ND	ND	NI)		l .
	Weekly Weekly	15	ND 5	ND 7.5	ND ND	ND 5		
Color	Weekly Continuous	15		7.5	ND ND	5		
Color Free and Total Cl Res,	Weekly	15 Free Cl: A Total Cl: A	5 Average: -; F Average: 5.3	7.5 Range: - 9; Range: 4	ND			
Color Free and Total Cl Res, ppm	Weekly Continuous	15 Free CI: A Total CI: A Ammonia:	5 Average: -; F Average: 5.3 Average:-;	7.5 Range: - 9; Range: 4 Range: –	ND .33 - 6.42	5		
Color Free and Total CI Res, ppm SP4 Also called	Weekly Continuous	15 Free Cl: A Total Cl: A Ammonia:	5 Average: -; F Average: 5.3 : Average:-; or the Site	7.5 Range: - 9; Range: 4 Range: -	ND .33 - 6.42	5	int/Phosp	hate Injection.
Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection	Weekly Continuous Reservoir	15 Free Cl: A Total Cl: A Ammonia: Influent of	5 Average: -; F Average: 5.3: Average:-; Or the Site e Dosage: 0	7.5 Range: - 9; Range: 4 Range: - • Well 5/MV	ND .33 - 6.42 ND Water	5	int/Phosp	hate Injection.
Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res,	Weekly Continuous	15 Free CI: A Total CI: A Ammonia: Influent of Phosphate Free CI: A	5 Average: -; FA Average: 5.39 Average: -; or the Site Dosage: 0 Average: 0.5	7.5 Range: - 9; Range: 4 Range: - • Well 5/M .97 mg/L 1; Range: 0.	ND 33 - 6.42 ND Water 40 - 0.61	5	int/Phosp	CI/NH3 Ratio:
Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection	Weekly Continuous Reservoir	15 Free CI: A Total CI: A Ammonia: Influent (Phosphate Free CI: A Total CI: A	5 Average: -; FA Average: 5.39 Average: -; Or the Site e Dosage: 0 Average: 0.5 Average: 4.5	7.5 Range: - 9; Range: 4 Range: - • Well 5/M .97 mg/L 1; Range: 0. 2; Range: 4.	ND 33 - 6.42 ND Water 40 - 0.61 19 - 5.19	5	int/Phosp	
Color Free and Total CI Res, opm SP4 Also called Phosphate Injection Free and Total CI Res, opm	Weekly Continuous Reservoir Continuous	Total CI: A Ammonia: Influent (Phosphate Free CI: A Total CI: A Ammonia:	5 Average: -; FA Average: 5.39 Average: -; Or the Site e Dosage: 0 Average: 0.5 Average: 4.59 Average: 0.5	7.5 Range: - 9; Range: 4 Range: - • Well 5/M .97 mg/L 1; Range: 0. 2; Range: 4.	ND 33 - 6.42 ND Water 40 - 0.61 19 - 5.19 0.71 - 1.15	5 Blend Po		CI/NH3 Ratio: 5.04
Color Free and Total CI Res, opm SP4 Also called Phosphate Injection Free and Total CI Res, opm SP5 Also called	Weekly Continuous Reservoir Continuous Reservoir	Total CI: A Ammonia: Influent (Phosphate Free CI: A Total CI: A Ammonia: Effluent (SI Goal:	5 Average: -; FA Average: 5.39 Average: -; Or the Site e Dosage: 0 Average: 0.5 Average: 4.59 Average: 0.5	7.5 Range: - 9; Range: 4 Range: - • Well 5/M .97 mg/L 1; Range: 0. 2; Range: 4.	ND 33 - 6.42 ND Water 40 - 0.61 19 - 5.19 0.71 - 1.15	5 Blend Po		CI/NH3 Ratio: 5.04
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Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm Headspace of the CPCH4 ppmv; using	Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Sypress Re Daily	Total CI: A Ammonia: Influent of Phosphate Free CI: A Total CI: A Ammonia: Free CI: A Total CI: A Ammonia: Effluent of SI Goal: 500-750ppm Goal: from PA Total CI: A Ammonia: Free CI: A Total CI: A Ammonia: Servoir. Goal -	5 Average: -; FA Average: 5.36 Average: -; Pr Average: -; Pr Average: -; Pr Be Dosage: 0 Average: 0.5 Average: 0.5 Average: 0.5 Average: 0.1 Average: 3.3 Average: 0.1 CH4 Average: 0.1	7.5 Range: - 9; Range: 4 Range: - • Well 5/MV .97 mg/L 1; Range: 0. 2; Range: 4. 90; Range: 4. 90; Range: 0. 550 260 0.47 3 3; Range: 0.0 7; Range: 3.1 77; Range: 0.0 age: 0.0%	ND 33 - 6.42 ND Water 40 - 0.61 19 - 5.19 0.71 - 1.15 harges int 560 0.43 2 17 - 0.31 4 - 3.57	5 Blend Po		CI/NH3 Ratio: 5.04 tribution system % CH4 Removal: 90.1% CI/NH3 Ratio:
Color Free and Total CI Res, oppm SP4 Also called Phosphate Injection Free and Total CI Res, oppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, oppm Headspace of the CI CH4 ppmv; using Portable Device	Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Sypress Re Daily (from log)	Total CI: A Ammonia: Influent of Phosphate Free CI: A Total CI: A Ammonia: Free CI: A Ammonia: Effluent of SI Goal: 500-750ppm Goal: from PA Total CI: A Ammonia: Free CI: A Total CI: A Ammonia: Servoir. Goal - LEL	5 Average: -; FA Average: 5.36 Average: 5.36 E Dosage: 0 Average: 0.5 Average: 4.56 E Average: 0.1 Average: 3.36 Average: 3.37 Average: 0.1	7.5 Range: - 9; Range: 4 Range: - • Well 5/MV .97 mg/L 1; Range: 0.2; Range: 4. 90; Range: 4. 90; Range: 4. 90; Range: 0.2 550 260 0.47 3 3; Range: 0.0 7; Range: 0.0 7; Range: 0.0 age: 0.0% ge: 0%	ND 33 - 6.42 ND Water 40 - 0.61 19 - 5.19 0.71 - 1.15 harges int 560 0.43 2 07 - 0.31 4 - 3.57 .63 - 0.87	5 Blend Po 2 550 0.49 2	of the dis	CI/NH3 Ratio: 5.04 tribution system % CH4 Removal: 90.1% CI/NH3 Ratio: 4.39
Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, ppm Headspace of the CPCH4 ppmv; using Portable Device	Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Sypress Re Daily (from log)	Total CI: A Ammonia: Influent of Phosphate Free CI: A Total CI: A Ammonia: Free CI: A Ammonia: Effluent of SI Goal: 500-750ppm Goal: from PA Total CI: A Ammonia: Free CI: A Total CI: A Ammonia: Servoir. Goal - LEL	5 Average: -; FA Average: 5.36 Average: 5.36 E Dosage: 0 Average: 0.5 Average: 4.56 E Average: 0.1 Average: 3.36 Average: 3.37 Average: 0.1	7.5 Range: - 9; Range: 4 Range: - • Well 5/MV .97 mg/L 1; Range: 0.2; Range: 4. 90; Range: 4. 90; Range: 4. 90; Range: 0.2 550 260 0.47 3 3; Range: 0.0 7; Range: 0.0 7; Range: 0.0 age: 0.0% ge: 0%	ND 33 - 6.42 ND Water 40 - 0.61 19 - 5.19 0.71 - 1.15 harges int 560 0.43 2 07 - 0.31 4 - 3.57 .63 - 0.87	5 Blend Po 2 550 0.49 2	of the dis	CI/NH3 Ratio: 5.04 tribution system % CH4 Removal: 90.1% CI/NH3 Ratio: 4.39
Color Free and Total CI Res, oppm SP4 Also called Phosphate Injection Free and Total CI Res, opm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, opm Headspace of the CI CH4 ppmv; using	Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Sypress Re Daily (from log)	Total CI: A Ammonia: Influent of Phosphate Free CI: A Total CI: A Ammonia: Free CI: A Ammonia: Effluent of SI Goal: 500-750ppm Goal: from PA Total CI: A Ammonia: Free CI: A Total CI: A Ammonia: Servoir. Goal - LEL	5 Average: -; FA Average: 5.36 Average: 5.36 E Dosage: 0 Average: 0.5 Average: 4.56 E Average: 0.1 Average: 3.36 Average: 3.37 Average: 0.1	7.5 Range: - 9; Range: 4 Range: - • Well 5/MV .97 mg/L 1; Range: 0.2; Range: 4. 90; Range: 4. 90; Range: 4. 90; Range: 0.2 550 260 0.47 3 3; Range: 0.0 7; Range: 0.0 7; Range: 0.0 age: 0.0% ge: 0%	ND 33 - 6.42 ND Water 40 - 0.61 19 - 5.19 0.71 - 1.15 harges int 560 0.43 2 07 - 0.31 4 - 3.57 .63 - 0.87	5 Blend Po 2 550 0.49 2	of the dis	CI/NH3 Ratio: 5.04 tribution system % CH4 Removal: 90.1% CI/NH3 Ratio: 4.39
Color Free and Total CI Res, opm SP4 Also called Phosphate Injection Free and Total CI Res, opm SP5 Also called TDS, ppm Hardness CH4, ppm Odor, units Free and Total CI Res, opm Headspace of the CI CH4 ppmv; using Portable Device SP 6 MWD Source	Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Sypress Re Daily (from log) Ce Feeding	Total CI: A Ammonia: Influent of Phosphate Free CI: A Total CI: A Ammonia: Free CI: A Total CI: A Ammonia: Effluent of SI Goal: 500-750ppm SI Goal: 180-250ppm Goal: from PA Total CI: A Ammonia: Servoir. Goal - LEL CWPF. A	5 Average: -; FA Average: 5.36 Average: 5.36 E Dosage: 0 Average: 0.5 Average: 4.56 E Average: 0.1 Average: 3.36 Average: 3.37 Average: 0.1	7.5 Range: - 9; Range: 4 Range: - 9 Well 5/M .97 mg/L 1; Range: 0.2; Range: 4. 90; Range: 4. 90; Range: 4. 90; Range: 4. 75; Range: 0.0 260 0.47 3 3; Range: 0.0 7; Range: 0.0 7; Range: 0.0 age: 0.0 d Zone 2 c	ND 33 - 6.42 ND Water 40 - 0.61 19 - 5.19 0.71 - 1.15 harges int 560 0.43 2 07 - 0.31 4 - 3.57 .63 - 0.87	5 Blend Po 2 550 0.49 2	of the dis	CI/NH3 Ratio: 5.04 tribution system % CH4 Removal: 90.1% CI/NH3 Ratio: 4.39

APPENDIX A

LABORATORY RESULTS



21 December 2017 Clinical Lab No.: 17L0582

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

Project Name: Standard Analysis

Sub Project: CWPF 1st Week of Dec, 2017 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 12/06/17 . 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

tistes



Lomita, City ofProjectStandard AnalysisWork Order:17L058224373 Walnut AvenueSub Project:CWPF 1st Week of Dec, 2017 Compliance SamplingReceived:12/06/17 16:30Lomita CA, 91717Project Manager:Mark AndersenReported:12/21/17

Reservoir Influent Site #3		17L0582-	01 (Water)		Sample Da	te: 12/06/17	7:10 Sa	mpler: P	atrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	6.42		N/A	mg/L	12/06/17	12/06/17	1749138	
pH (Field)	Field	7.56		N/A	pH Units	12/06/17	12/06/17	1749138	
Temperature (Field)	Field	21.8		N/A	°C	12/06/17	12/06/17	1749138	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	12/06/17	12/06/17	1749135	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	12/12/17	12/12/17	1750036	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	12/12/17	12/12/17	1750036	
Reservoir Effluent Site #5		17L0582-	02 (Water)		Sample Da	te: 12/06/17	8:00 Sa	mpler: P	atrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.56		N/A	mg/L	12/06/17	12/06/17	1749138	
pH (Field)	Field	7.67		N/A	pH Units	12/06/17	12/06/17	1749138	
Temperature (Field)	Field	19.4		N/A	°C	12/06/17	12/06/17	1749138	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	12/06/17	12/06/17	1749135	
Odor Threshold	EPA 140.1-M	2	1	3	TON	12/06/17	12/06/17	1749135	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	570	5.0	1000	mg/L	12/13/17	12/15/17	1750083	
ND Analyte NOT DETECTED at o	r above the reporting limit								



December 15, 2017



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

TX Cert T104704450-14-6 EPA Methods TO14A, TO15 UT Cert CA0133332015-3 EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 17L0582

Lab Number:

I120805-01

Enclosed are results for sample(s) received 12/08/17 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 NELAC 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 171.0582

120805 1120805 -01

	1710302
SENDING LABORATORY:	RECEIVING LABORATORY:
Clinical Laboratory of San Bernardino	Air Technology Labs
21881 Barton Road	18501 East Gale Avenue Suite 130
Grand Terrace, CA 92313	City of Industry, CA 91748
Phone: 909.825.7693	Phone :(626) 964-4032
Fax: 909.825.7696	Fax:
Project Manager: Stu Styles	
Please email results to Project Manager: Stu Styles [] glaubig@clinical-lab.com [] ybarra@clinical-lab.com	
California EDT transfer those samples with PS codes p Water Trax Upload Client:	orovided []Yes [v]No []Yes [v]No
Turn Around Time [] 10 Days [V 5 Days [] Oth Subcontract Comments:	ner Days
Analysis	Comments
	Sampled: 12/06/17 08:00 PS Code: Water WTX ID:
Methane RSK175	Report in mg/L
Containers Supplied:	
A A	

40ml Amber Vial (C)

40ml Amber Vial (B)

12/08/17 07:45	Clark	12/8/17 8'.30	
Released By	Date / Time	Received By	Date / Time
Released By	Date / Time	Received By	Date / Time
Released By	Date / Time	Date / Time	Date / Time
Received By	Date / Time	Date / Date /	

Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

17L0582

Date Received:

12/08/17

Matrix:

Water

Reporting Units: mg/L

		RS	K175			
	712000	- 04		1		
Lab No.:	I12080					
	Reservoir	Effluent				
Client Sample I.D.:	Site #5/17	L0582-				
_	02					
Date/Time Sampled:	12/6/17	8:00				
Date/Time Analyzed:	12/14/17	11:45				
QC Batch No.:	171214G	C8A1				
Analyst Initials:	AS	3				
Dilution Factor:	1.0					
	Result	RL				
ANALYTE	mg/L	mg/L				
Methane	0.32	0.0010				

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson

Operations Manager

Date 12-15-17

The cover letter is an integral part of this analytical report

QC Batch No.:

171214GC8A1

Matrix:

Water

Units: mg/L

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

Lab	No.:	Metho	d Blank	I	LCS	L	CSD		
Date/Time A	nalyzed:	12/14/	17 11:04	12/14/	17 11:18	12/14/	17 11:31		
Analyst In	tials:	A	AS		AS	į	AS		
Dat	ıfile:	14d	ec002	140	dec003	140	lec004		
Dilution Fa	ctor:	1	0.0		1.0	1	1.0		
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	108	70-130%	108	70-130%	0.4	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By:

Mark J. Johnson

Operations Manager

Date: 12-15-17

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

\$\\ \begin{picture}
\text{\subseteq} & \text{Chain of Custody} \end{picture}

17-6582

														1000	۱
Client		City of Lomita	System		Number				Analysis	sis R	Reduested	pa			
Address		24373 Walnut Avenue			191	1910073									
		Lomita, CA 91717			2							To			
Phone #		(310) 325-9830		D	stination	Destination Laboratory	'n								
Fax#		(310) 325-3627		d	(] Clinica	[X] Clinical Laboratory	ıry			`otal					
Project		Standard Analysis		Ľ	WQCB C	RWQCB Compliance	e						0		
		CWPF 1st week of December, 2017			λ.	yes				olor			dor		
sub Project		Compliance Sampling			EL	ELAP#			anes	d So		/HP			
Comments		For TC/EC/BACT see weekly Distro CoC			7	4088				lids	SK	C CaC			
Sampled by		Patrick McCue			-	2						O3)			
Date	Time	Sample Idenitification	Matrix	Type	Preserv	Нф	l cmp.	Fotal Chlorine						Comments / P.S. Codes	
12/6/2017	STIC	⑥フ (○ Reservoir Influent Site #3	DW	1.00	N/A	7.56	218	7117	X	X					
12/6/2017 C	380	OBCX) Reservoir Effluent Site #5	DW	WI W	N/A	Lማ ⁻ /	.H:51	3 5 €		XX			X		
12/6/2017	0280	SCO Reservoir Effluent Site #5	DW	1W	7						×				
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					1000	7404								C. milking B. Com. T.	
Preservatives:	: (1) Na	Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCI (3) HNO3 (4) NH4CI (5) H2SO4 (6) Na ₂ SSO3 (7) Cold (8) Other:	matrix:	un-wa	WAA BUD		Reto Water	ior, SW-Storm Water, GW- Ground Water, A-Alf Ropeat, 3-Replacement, 4-Special W-Well D- Dist.	п мате рІасет	ent, 4-	Special	Water, W-We	A-AII I D- Dį	iype- i-rouune, z- ist.	
Relinan	uished	Relinauished By (Sign) Print Name / Company	-			Date (7	Time			٢	2			Print Name / Gompany	
Patrick McCue	G)			12/6/2017	-	0.71	0	Q	7		5	1	1	TONGEND LEUR	
Postarp	2	mes Thromples	Z	1.9.2	17	4.30				7	260		7)	-1-# CIRR	
Company	7	July (San	Samples received?	eived: A				` ~		tody s	Custody seals Temp ()F & C	
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Shipped		Fed X Golden State	SUL	Client		Other					Page	Page_l_of_			



28 December 2017 Clinical Lab No.: 17L1190

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

Project Name: Standard Analysis

Sub Project: CWPF Monthly Compliance / 2nd Week of Dec, 2017

Enclosed are the results of the analyses for samples received at the laboratory on 12/13/17 . 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

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Lomita, City ofProject:Standard AnalysisWork Order:17L119024373 Walnut AvenueSub Project:CWPF Monthly Compliance / 2nd Week of Dec, 2017Received:12/13/17 16:50

Lomita CA, 91717 Project Manager: Mark Andersen Reported: 12/28/17

Raw Water Site #1		17L1190-(01 (Water)		Sample Da	te: 12/13/17	6:59 S a	ampler: D	GM
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	0		N/A	mg/L	12/13/17	12/13/17	1750120	
pH (Field)	Field	7.47		N/A	pH Units	12/13/17	12/13/17	1750120	
Temperature (Field)	Field	20.6		N/A	°C	12/13/17	12/13/17	1750120	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	12/13/17	12/14/17	1750116	
E. Coli	SM 9223	A		N/A	P/A	12/13/17	12/14/17	1750116	
Plate Count	SM9215B	19	1	500	CFU/ml	12/13/17	12/15/17	1750175	HT-08
General Physical Analyses									
Apparent Color	SM 2120BM	10.0	3.0	15	Color Units	12/13/17	12/13/17	1750127	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	390	9.1	N/A	mg/L	12/19/17	12/20/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	820	5.0	1000	mg/L	12/20/17	12/21/17	1751076	
<u>Metals</u>									
Calcium (Ca)	EPA 200.7	100	2.0	N/A	mg/L	12/19/17	12/20/17	1751060	
Iron (Fe)	EPA 200.7	200	100	300	ug/L	12/18/17	12/18/17	1751030	
Magnesium (Mg)	EPA 200.7	33	1.0	N/A	mg/L	12/18/17	12/19/17	1751032	
Manganese (Mn)	EPA 200.7	170	20	50	ug/L	12/18/17	12/18/17	1751030	
Filter Effluent (Free Chlorine) Site #2		17L1190-0	02 (Water)		Sample Da	te: 12/13/17	6:45 S a	ampler: D	GM
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	5.4		N/A	mg/L	12/13/17	12/13/17	1750120	
pH (Field)	Field	7.46		N/A	pH Units	12/13/17	12/13/17	1750120	
Temperature (Field)	Field	21.2		N/A	°C	12/13/17	12/13/17	1750120	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	12/13/17	12/14/17	1750116	
E. Coli	SM 9223	A		N/A	P/A	12/13/17	12/14/17	1750116	
Plate Count	SM9215B	ND	1	500	CFU/ml	12/13/17	12/15/17	1750175	HT-08



Lomita, City ofProject:Standard AnalysisWork Order:17L119024373 Walnut AvenueSub Project:CWPF Monthly Compliance / 2nd Week of Dec, 2017Received:12/13/17 16:50

Lomita CA, 91717 Project Manager: Mark Andersen Reported: 12/28/17

Filter Effluent (Total Chlorine) Site #3		17L1190-0	3 (Water)		Sample Da	te: 12/13/17	7 6:47 Sa	mpler: D	GM
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	5.4		N/A	mg/L	12/13/17	12/13/17	1750120	
pH (Field)	Field	7.6		N/A	pH Units	12/13/17	12/13/17	1750120	
Temperature (Field)	Field	22.8		N/A	°C	12/13/17	12/13/17	1750120	
General Physical Analyses									
Apparent Color	SM 2120BM	7.5	3.0	15	Color Units	12/13/17	12/13/17	1750127	
<u>1etals</u>									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	12/18/17	12/18/17	1751030	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	12/18/17	12/18/17	1751030	
Zone #2 Site #6		17L1190-0	94 (Water)		Sample Da	te: 12/13/17	7 6:49 Sa	mpler: De	GM
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
<u>'ield Analyses</u>									
Cl Res Total (Field)	Field	1.97		N/A	mg/L	12/13/17	12/13/17	1750120	
pH (Field)	Field	8.54		N/A	pH Units	12/13/17	12/13/17	1750120	
Temperature (Field)	Field	18.3		N/A	°C	12/13/17	12/13/17	1750120	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	110	6.6	N/A	mg/L	12/18/17	12/19/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	250	5.0	1000	mg/L	12/20/17	12/21/17	1751076	
<u> Aetals</u>									
Calcium (Ca)	EPA 200.7	24	1.0	N/A	mg/L	12/18/17	12/19/17	1751032	
Magnesium (Mg)	EPA 200.7	11	1.0	N/A	mg/L	12/18/17	12/19/17	1751032	



Lomita, City ofProject:Standard AnalysisWork Order:17L119024373 Walnut AvenueSub Project:CWPF Monthly Compliance / 2nd Week of Dec, 2017Received:12/13/17 16:50

Lomita CA, 91717 Project Manager: Mark Andersen Reported: 12/28/17

Reservoir Effluent Site #5		17L1190-0	5 (Water)		Sample Da	ite: 12/13/17	7 6:53 Sa :	mpler: D	GM
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.51		N/A	mg/L	12/13/17	12/13/17	1750120	
pH (Field)	Field	7.83		N/A	pH Units	12/13/17	12/13/17	1750120	
Temperature (Field)	Field	20.2		N/A	°C	12/13/17	12/13/17	1750120	
General Physical Analyses									
Odor Threshold	EPA 140.1-M	3	1	3	TON	12/13/17	12/13/17	1750127	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	260	6.6	N/A	mg/L	12/18/17	12/19/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	550	5.0	1000	mg/L	12/20/17	12/21/17	1751076	
<u>Metals</u>									
Calcium (Ca)	EPA 200.7	66	1.0	N/A	mg/L	12/18/17	12/19/17	1751032	
Magnesium (Mg)	EPA 200.7	22	1.0	N/A	mg/L	12/18/17	12/19/17	1751032	

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



December 22, 2017



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

TX Cert T104704450-14-6 EPA Methods T014A, T015 UT Cert CA0133332015-3 EPA Methods T03, T014A, T015, RSK-175

LABORATORY TEST RESULTS

Project Reference: 17L1190

Lab Number:

I121501-01/02

Enclosed are results for sample(s) received 12/15/17 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 NELAC 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

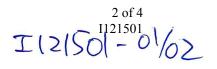
Operations Manager

MJohnson@AirTechLabs.com

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

SUBCONTRACT ORDER

Clinical Laboratory of San Bernardino 17L1190



SENDING LABORATORY:	RECEIVING LABORATORY:
21881 Barton Road Grand Terrace, CA 92313 Phone: 909.825.7693	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 [] ybarra@clinical-lab.com [] California EDT transfer those samples with PS codes provid Water Trax Upload Client:	
Turn Around Time [] 10 Days [v] 5 Days [] Other Subcontract Comments:	_ []Yes [v]No Days
	Comments
Sample ID: Raw Water Site #1 / 17L1190-01 Sample Water	4: 58 B 6 d: 12/13/17 -06:59 PS Code: WTX ID:
Methane RSK175 Containers Supplied: Oml Amber Vial (B) 40ml Amber Vial (C)	Report in mg/L
No. Of the set of	d: 12/13/17 06:53 PS Code: WTX ID:
Methane RSK175 Containers Supplied: Oml Amber Vial (B) 40ml Amber Vial (C)	Report in mg/L
The same of the sa	
est se a company of the company of t	g en og s en å s e e e e e e e e e e e e e g e
es les estats communes a sur a sur proper participation of the surface of the sur	2 D
B) Date / Time 12/15/17	12/15/17 8:00 Received By 12/15/17 8:00 12/15/17 0927

Client:

Clinical Laboratory

Attn:

Matrix:

Stu Styles

Project Name:

NA

Project No.:

17L1190

Date Received:

12/15/17

Reporting Units: mg/L

Water

TO OVE	
DCL	75
RSK1	

Lab No.:	I12150	1-01	I12150	1-02			
	Raw Wate	r Site #1	Reservoir	Effluent			
Client Sample I.D.:	1		Site 7	4 5 /			
	17L119	90-01	17L119	90-05			
Date/Time Sampled:	12/13/1	7 6:58	12/13/1	7 6:53			
Date/Time Analyzed:	12/20/17	12/20/17 14:08		13:55			
QC Batch No.:	1712200	GC8A1	1712200	GC8A1			
Analyst Initials:	AS	S	AS				
Dilution Factor:	1.0)	1.0	1.0			
	Result	RL	Result	RL			
ANALYTE	mg/L	mg/L	mg/L	mg/L			
Methane	4.1	0.0010	0.47	0.0010			

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson

Operations Manager

Date 12/22/17

The cover letter is an integral part of this analytical report

QC Batch No.:

171220GC8A1

Matrix:

Water

Units:

mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab	No.:	Metho	d Blank	1	LCS	L	CSD		
Date/Time An	alyzed:	12/20/	17 9:03	12/20	/17 9:16	12/20/	17 13:16		
Analyst Init	ials:	I	AS		AS	3	AS		
Data	file:	20d	ec004	200	dec005	200	lec021		
Dilution Fac	etor:	1	0.0		1.0		1.0		
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	92	70-130%	90	70-130%	2.6	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By:

Mark J. Johnson

Operations Manager

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

Chain of Custody	
$\overline{\mathcal{W}}$)
U	

Client		City of Lomita	Sys	System Number	ımber				Ana	lysis	Analysis Requested	uest	pa						
Address		24373 Walnut Avenue			10,	1010073				-									
		Lomita, CA 91717			2	,									Me				
Phone #		(310) 325-9830		-	Destinati	Destination Laboratory	tory		Т			пе	11.		etha				
Fax#		(310) 325-3627			[X] Clinic	[X] Clinical Laboratory	tory		otal	Iror	1 1		+c+-		ne (
Project		Standard Analysis			RWQCB	RWQCB Compliance	eo.		Dis						(WA	Ha			
9.0	4	CWPF Monthly Compliance Samples;				YES			ssol		. C		Cole	Odo	\TI	ırdı			
one Project		2nd week of Dec., 2017			Ш	ELAP#			ved			lifo			ER)	ness			
Comments					7	4000			Solid	nese	. 111	e Cou	· Carr		(RSI				
Sampled by	_	DGM				000	1	,	ls	 			nt		K175)				
Date	Time	Sample Idenitification	Matrix	Type	Preserv	lemp.	Hd	Total Chlorine)				
12/13/2017	85%	Raw Water Site #1	GW	1W	N/A	20.6	7,47	Ø	N	× ,			×						
12/13/2017	6590	Raw Water Site #1	GW	1W	1, 2, 7						X	X	×		Χì	×			
			-								-	<u> </u>							
12/13/2017	\$F.90	Filter Effluent (Free Chlorine) Site#2	DW	WI	1,7	21.2	7.46	5,40			×	×	×						
7. 4.70 \ \(\frac{12}{12} \)	C 4-70	Filter Effluent (Total Chlorine) Site#3	MO	1W	N/A	22 6	7,60	5.40		X			X						
12/13/2017	હાગ્ગ 🔾	Zone #2 Site #6	MO	1D	N/A	16 3	h5'8	197	N							X			
12/13/2017	S 590	Reservoir Effluent Site #5	DW	1D	N/A	202c	1.83	13.51	×į					×		×			
12/13/2017	5390	Reservoir Effluent Site #5	DW	1D	2,7										× 1				
Preservatives	1: (1) Na ₂ S ₂ O ₃	Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCI (3) HNO3 (4) NH4CI (5) H2SO4 (6) Na ₂ SO3 (7) Cold (8) Other:	Matrix: D	: DW-Dri	nking Wa	ater, WW-l	Naste Wate outine, 2-R	W-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D- Dist.	m Wa	ter, G	W-Gr	ound	Water W-We	, A-Aii II D- L	r Jist.			Typ	Туре- 1-
Reling	Relinquished By (Sign)	Sign) Print Name / Company	<i>v</i>			Date / Time	Time	. (_	1	Rece	ived	Received By (Sign)	ign)			Print Name / Company	me / Cos	mpany
Patrick McCue	9	City of Lomita, CA		12/13/2017	017	121	8	R	7	2				N.	Z	1	3	ر ا	
Ctro	A MICK	J. hacem)	600	たらら	1/62	4:50		\bigcirc		P	(40N)	NO THE	6	7	1		で、来		3
Commenter	المرابع المرابع				Sampl	Samples received: (X	On ice () I	ntaot		<u>5</u>	stod	Custody seals Temp	ls Te	_dm	9. (. () F	X
Shipped Via		Fed X Golden State	I I UPS		Client	Other							Page_	1 of					



04 January 2018 Clinical Lab No.: 17L1855

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

Project Name: Standard Analysis

Sub Project: CWPF 3rd Week of Dec, 2017 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 12/20/17 . 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

tistes



Lomita, City ofProjectStandard AnalysisWork Order:17L185524373 Walnut AvenueSub Project:CWPF 3rd Week of Dec, 2017 Compliance Sampling Received:12/20/17 16:00Lomita CA, 91717Project Manager:Mark AndersenReported:01/04/18

Reservoir Influent Site #3		17L1855-	01 (Water)		Sample Da	te: 12/20/17	8:48 S a	ampler:	Patrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	4.325		N/A	mg/L	12/20/17	12/20/17	1751137	
pH (Field)	Field	7.56		N/A	pH Units	12/20/17	12/20/17	1751137	
Temperature (Field)	Field	21.2		N/A	°C	12/20/17	12/20/17	1751137	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	12/20/17	12/20/17	1751107	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	01/03/18	01/03/18	1801044	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	01/03/18	01/03/18	1801044	
Reservoir Effluent Site #5		17L1855-	02 (Water)		Sample Da	te: 12/20/17	8:52 S a	mpler:	Patrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.75		N/A	mg/L	12/20/17	12/20/17	1751137	
pH (Field)	Field	7.78		N/A	pH Units	12/20/17	12/20/17	1751137	
Temperature (Field)	Field	19.5		N/A	°C	12/20/17	12/20/17	1751137	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	12/20/17	12/20/17	1751107	
Odor Threshold	EPA 140.1-M	2	1	3	TON	12/20/17	12/20/17	1751107	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	560	5.0	1000	mg/L	12/27/17	12/28/17	1752064	
ND Analyte NOT DETECTED at o	r above the reporting limit								



January 2, 2018

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

TX Cert T104704450-14-6 EPA Methods TO14A, TO15 UT Cert CA0133332015-3 EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 17L1855

Lab Number:

I122201-01

Enclosed are results for sample(s) received 12/22/17 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 NELAC 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 17L1855

I 122201 -0(

SENDING LABORATORY:	RECEIVING 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	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 S [] glaubig@clinical-lab.com [] ybarra@e	
California EDT transfer those samples Water Trax Upload Client:	s with PS codes provided [] Yes [] No [] No
Turn Around Time [] 10 Days [] 5 Subcontract Comments:	Days [] Other Days
	SURPORTERACTOR
Analysis	Called all forces that agreed beautiful and comments - My forces
Sample ID: Reservoir Effluent Site #5 / 17L185	Water WTX ID:
Methane RSK175	Report in mg/L
ontainers Supplied:	Section in the section of the section in the sectio
	0ml Amber Vial (C)
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	OFF OF THE STATE CONTROL OF THE STATE OF THE
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Released By Date	17 07:45 M Cl 1 12/2/11 8:15 /Time Received By Date / Time

Received By

Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

17L1855

Date Received:

12/22/17

Matrix:

Water

Reporting Units: mg/L

RSK175

		110.	KI 70			
Lab No.:	I12220	1-01				
	Reservoir	Effluent				
Client Sample I.D.:	Site #5/17	L1855-				
	02					
Date/Time Sampled:	12/20/17	8:52				
Date/Time Analyzed:	12/29/17	12/29/17 8:57				
QC Batch No.:	171229G	C8A1				
Analyst Initials:	AS	AS			N.	
Dilution Factor:	1.0					
	Result	RL				
ANALYTE	mg/L	mg/L				
Methane	0.43	0.0010				

ND	= Not	Detected	(below	RLA
110	1101	Detected	(DCIO II	1

RL = Reporting Limit

Davi	OWO	AIL	nnrovod	Dw.

Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No.:

171229GC8A1

Matrix:

Water

Units:

mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab	No.:	Metho	d Blank	I	LCS	L	CSD		
Date/Time Ar	alyzed:	12/29/17 8:18		12/29/17 8:44		12/29/17 11:45			
Analyst Ini	Analyst Initials:				AS		AS		
Data	file:	29d	ec001	290	dec003	290	lec017		
Dilution Fa	ctor:	1	.0	1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	103	70-130%	96	70-130%	6.9	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By:

Mark J. Johnso

Operations Manager

M. | Date: 1/2/18

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

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<i>B</i>
San
yof
iical Laboratory of San Bernardino, Inc.
Lab
ical

Address Phone # Fax # Project Comments Sampled by Date Time 12/20/2017 @60/62 12/20/2017 CE\$ 7 Preservatives: (1) Na ₂ \$ (5) H2SO4 (6) Na ₂	Lomita, CA 91717	Dostination Laboratory Pestination Laboratory RWQCB Compliance Type Present	Destination (X) Clinic RWQCB RWQCB N/A N/A N/A 2 2 2	1910073 Destination Laboratory [X] Clinical Laboratory RWGCB Compliance yes ELAP # 1088 Ivery pH N/A 7.78 2 2 2 Inking Water, WWWWanter	Ce Irmin 19 15 19 15 18 18 18 18 18 18 18 18 18 18 18 18 18	Odor BACT/TC/HPC Total Hardness (as CaCO3) Methane (Water) (RSK175) Color Total Dissolved Solids Iron / Manganese W. Well D- Dist	Total Dissolved Solids Iron / Manganese	Color × × S S S S S S S S S S S S S S S S S	Total Hardness (as CaCO3) Methane (Water) (RSK175)	BACT/TC/HPC SAFET, Well	Odor × Air	Comments / P.S. Codes
Relinquished By (Sign) Patrick McCue Comments:	ity of Lomita CODO CL	2007.21 2.01 24 2.01 2	7102	Samples received		On ice	1		() (ii		dy sea	Custody scals Temp S. 9 () F

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09 January 2018 Clinical Lab No.: 17L2152

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

Project Name: Standard Analysis

Sub Project: CWPF 4th Week of Dec, 2017 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 12/27/17 . 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

tistes



Lomita, City ofProject:Standard AnalysisWork Order:17L215224373 Walnut AvenueSub Project:CWPF 4th Week of Dec, 2017 Compliance Sampling Received:12/27/17 15:15Lomita CA, 91717Project Manager:Mark AndersenReported:01/09/18

Reservoir Influent Site #3		17L2152-0	01 (Water)		Sample Da	te: 12/27/17	9:18 S	ampler: P	atrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	5.4		N/A	mg/L	12/27/17	12/27/17	1752088	
pH (Field)	Field	7.53		N/A	pH Units	12/27/17	12/27/17	1752088	
Temperature (Field)	Field	20.6		N/A	°C	12/27/17	12/27/17	1752088	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	12/27/17	12/27/17	1752112	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	01/08/18	01/08/18	1802003	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	01/08/18	01/08/18	1802003	
Reservoir Effluent Site #5		17L2152-0	02 (Water)		Sample Da	te: 12/27/17	9:22 S	ampler: P	atrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.31		N/A	mg/L	12/27/17	12/27/17	1752088	
pH (Field)	Field	7.71		N/A	pH Units	12/27/17	12/27/17	1752088	
Temperature (Field)	Field	18.9		N/A	°C	12/27/17	12/27/17	1752088	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	12/27/17	12/27/17	1752112	
Odor Threshold	EPA 140.1-M	2	1	3	TON	12/27/17	12/27/17	1752112	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	550	5.0	1000	mg/L	01/03/18	01/05/18	1801054	
ND Analyte NOT DETECTED at or	above the reporting limit								



January 3, 2018



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

TX Cert T104704450-14-6 EPA Methods TO14A, TO15 UT Cert CA0133332015-3 EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 17L2152 Lab Number:

I122802-01

Enclosed are results for sample(s) received 12/28/17 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 NELAC 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 17L2152

I122802-01

SENDING LABORATORY:	RECEIVING LABORATORY:
Clinical Laboratory of San Bernardino	Air Technology Labs
21881 Barton Road	18501 East Gale Avenue Suite 130
Grand Terrace, CA 92313	City of Industry, CA 91748
Phone: 909.825.7693	Phone :(626) 964-4032
Fax: 909.825.7696	Fax:
Project Manager: Stu Styles	
Please email results to Project Manager: Stu Styles [] glaubig@clinical-lab.com [] ybarra@clinica	l-lab.com [v] styles@clinical-lab.com [] nelson@clinical-lab.com
California EDT transfer those samples with Water Trax Upload Client:	PS codes provided []Yes [√]No []Yes [√]No
Turn Around Time [] 10 Days Subcontract Comments: [] 10 Days	[] Other Days
Application	Comments
Analysis	Comments
Sample ID: Reservoir Effluent Site #5 / 17L2152-02	Sampled: 12/27/17 09:22 PS Code: Water WTX ID:
the set of the second second second	the section of the se
Methane RSK175	Report in mg/L
Containers Supplied:	
Oml Amber Vial (B) 40ml An	mber Vial (C)
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15) Oly 12/28/17 Released By Date / Time	07:36 12/28/17 843
Released By Date / Time	Received By Date / Time
13/4	S/17 1/20/17 094
Released By Date / Time	Received By Date Time

Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

17L2152

Date Received:

12/28/17

Matrix:

Water

Reporting Units: mg/L

		RS	K175			
Lab No.:	I12280	2-01				
Client Sample I.D.:	Reservoir Site #5/17 02	L2152-				
Date/Time Sampled:	12/27/17	7 9:22				
Date/Time Analyzed:	12/29/17 11:32				- Augustina	
QC Batch No.:	171229G	C8A1				
Analyst Initials:	AS	S				
Dilution Factor:	1.0)			-	
ANALYTE	Result mg/L	RL mg/L				
Methane	0.49	0.0010				

NII	- Not	Detected	(halan	DII
IND	- 1101	Detected	OPPOW	LL!

RL = Reporting Limit

Reviewed/Approved By:	IN/W- 1
	Mark Johnson

Operations Manager

The cover letter is an integral part of this analytical report

QC Batch No.:

171229GC8A1

Matrix:

Water

Units:

mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab	No.:	Metho	d Blank	I	CS	L	CSD		
Date/Time An	alyzed:	12/29/	17 8:18	12/29	/17 8:44	12/29/	17 11:45		
Analyst Init	ials:	I	AS		AS		AS		
Data	file:	29d	ec001	290	lec003	290	lec017		
Dilution Fa	ctor:	1	1.0	1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	103	70-130%	96	70-130%	6.9	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By:	MICH.	Date:	1/3/1	8
	Mark J. Johnson			
	Operations Manager			

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

 ϕ 13 Chain of Custody

Caum of Custody

Client		City of Lomita		S	System No	Number				Analysis		Requested	ited			
Address		24373 Walnut Avenue				707	4040072									
		Lomita, CA 91717				121	200					M	To			
Phone #		(310) 325-9830			-	Destinatio	Destination Laboratory	ory			Т	etha				
Fax#		(310) 325-3627				[X] Clinica	[X] Clinical Laboratory	ory		Iro	otal	ne		RA		
Project		Standard Analysis				RWQCB	RWQCB Compliance	iè		n / N	Diss			О СТ/		
		CWPF 4th week of December, 2017	2017		9,000		yes			1ang	olor			dor TC		
ang Project	_	Compliance Sampling				П	ELAP#			anes			-			
Comments		For TC/EC/BACT see weekly Distro CoC	CoC			7	4000			se	lids	RSK				
Sampled by	_	Patrick McCue				_	000					175)	(O3)			
Date	Time	Sample Idenitification		Matrix	Type	Preserv	Hd	Temp.	Total Chlorine						Comments / P.S. Codes	
12/27/2017	3/60	0918 Reservoir Influent Site #3		DW	1W	ΑN	7.63	20.6	5.40	×	×			_		
12/27/2017	2260	0922 Reservoir Effluent Site #5		DW	MI	Α×	17.7	કું. જ	3.31		×			×		
12/27/2017	7260	12/27/2017 (\$922 Reservoir Effluent Site #5		DΨ	<u>*</u>	2						×				
											_					
											_					
											-					,
Preservatives	i: (1) Na	Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCI (3) HNO3 (4) NH4CI		Matri.	k: DW-Dri	nking Wa	ter, WW-W	aste Wate	Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air	m Wate	er, GW	Groun	d Wate	r, A-Ai	r 7)20-1-Routine,	utine, 2-
(5) H2SC	N (9) 4C	(5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:						*	Repeat, 3-Replacement, 4-Special W-Well D- Dist.	eplacer	nent, 4	Specia	×-×	ell D-	Dist.	
Reling	uished	Relinquished By (Sign) Print Name / Company	'Company			`	Date / T	Time			Ì	7.7			Print Name / Company	
Patrick McCue	رو ا	City of Lomita	Lomita		12/27/2017	17 /	11:31	9		~\	次	P	Ź		1 7. Uncello 10651	
10 J	140	Part Mins		(1.12.51	/U·	3:1-	И			死	H	Y	V	12#/CUSB	
Comments	3	acop (orac	3/00	೨			Samples received: (eived: 🖔	XOn ice	ر بو) Intact) 5) J	stody	Custody seals $Temp \underbrace{6.1}_{()}$ () F	×
Shipped	L	Fed X Golden State		I I UPS	Client	-	Other					Page	Page_1_of	f_1_		
L.L.		1			1											

Clinical Laboratory of San Bernardino, Inc.



18 December 2017 Clinical Lab No.: 17L0485

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

Project Name: Standard Analysis

Sub Project: Hexavalent Chromium 6 Sample

Enclosed are the results of the analyses for samples received at the laboratory on 12/06/17 . 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

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of Project: Standard Analysis Work Order: 17L0485 Sub Project: Hexavalent Chromium 6 Sample Received: 12/06/17 16:30 24373 Walnut Avenue Lomita CA, 91717 Reported: 12/18/17 Project Manager: Mark Andersen

Well #5		17L0485-0	01 (Water)		Sample Da	te: 12/06/17	7:38	Sampler:	Not Listed
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	0		N/A	mg/L	12/06/17	12/06/17	1749108	
pH (Field)	Field	7.34		N/A	pH Units	12/06/17	12/06/17	1749108	
Temperature (Field)	Field	21.1		N/A	°C	12/06/17	12/06/17	1749108	
Metals									
Chromium (+6)	EPA 218.6	ND	1.0	N/A	ug/L	12/06/17	12/07/17	1749024	
ND Analyte NOT DETECTED	at or above the reporting limit								

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1



Work Order: 17L0485 Report Date: 12/18/2017

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: 171206 07:38

CHROMIUM (HEXAVALENT) Result: ND Units: UG/L Entry No.: 01032 Analyzed: 171207

Chain of Custody

)
Client	City of Lomita	System Number	Analysis Requested	
Address	24373 Walnut Avenue	1910073		
	Lomita, CA 91717	6/00/6/		
Phone #	(310) 325-9830	Destination Laboratory	Не	
Fax#	(310) 325-3627	[X] Clinical Laboratory	exav	
Project		RWQCB Compliance	alent	
Sub Project	Hexavalent Chromium 6 samule		Chr	
300601 000		ELAP#	omi	
Comments			um 6	
Sampled by				
Date Time	Sample Idenitification	Matrix Type Preserv C	Total Chlorine Comm	Comments / P.S. Codes
12/6/2017 0738	0739 Well #5	DW 1D N/A	h2,7 hq x	1:12 duet
			te d	temp
	٤.			
			MA Marie CM Comma Mater CM Comma Mater A A:	T. Carlot
Preservatives: (1) Na ₂	Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCI (3) HNO3 (4) NH4CI (5) H2SO4 (6) Na ₂ SO3 (7) Cold (8) Other:	Matrix: DVV-Drinking VVater, VV	DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D- Dist.	-1ad/i
Relinguished By (Sign)	By (Sign) Print Name / Company	Date / Time	Redeived Bottsign)	Print Name / Company
Datrick McC.		12/1/17		20 1 0 NO
Taulch Inccue		9		がよった。
\mathfrak{A}	1400001CE	Samples received:	eceived: Len ice (Lintaci () Custody seals Temp	Temp () F (
COMMENSITY			X	
Shinned Via	Fed X Golden State	UPS Client Other	er Page 1 of 1	
· · · · · · · · · · · · · · · · · · ·				

APPENDIX B

METHANE MONITORING LOG



CITY OF LOMITA PUBLIC WORKS DEPARTMENT

CYPRESS WATER PRODUCTION FACILITY HANDHELD METHANE LOG READINGS

		DECEME	BER 2017	
DATE	DAY	METHANE	HANDHELD	COMMENTS
12/1/2017	Fri	CH4- 0%	Oxy- 19.2%	
12/2/2017	Sat	CH4- 0%	Oxy- 19.3%	
12/3/2017	Sun	CH4- 0%	Oxy- 19.3%	
12/4/2017	Mon	CH4- 0%	Oxy- 19.0%	
12/5/2017	Tue	CH4- 0%	Oxy- 19.1%	
12/6/2017	Wed	CH4- 0%	Oxy- 19.2%	
12/7/2017	Thu	CH4- 0%	Oxy- 19.3%	
12/8/2017	Fri	CH4- 0%	Oxy- 19.6%	
12/9/2017	Sat	CH4- 0%	Oxy- 20.2%	
12/10/2017	Sun	CH4- 0%	Oxy- 20.1%	
12/11/2017	Mon	CH4- 0%	Oxy- 19.6%	
12/12/2017	Tue	CH4- 0%	Oxy- 19.4%	
12/13/2017	Wed	CH4- 0%	Oxy- 19.7%	
12/14/2017	Thu	CH4- 0%	Oxy- 19.3%	
12/15/2017	Fri	CH4- 0%	Oxy- 19.6%	
12/16/2017	Sat	CH4- 0%	Oxy- 19.5%	
12/17/2017	Sun	CH4- 0%	Oxy- 19.2%	
12/18/2017	Mon	CH4- 0%	Oxy- 19.1%	
12/19/2017	Tue	CH4- 0%	Oxy- 19.3%	
12/20/2017	Wed	CH4- 0%	Oxy- 19.2%	
12/21/2017	Thu	CH4- 0%	Oxy- 19.8%	
12/22/2017	Fri	CH4- 0%	Oxy- 19.3%	
12/23/2017	Sat	CH4- 0%	Oxy- 20.1%	
12/24/2017	Sun	CH4- 0%	Oxy- 19.2%	
12/25/2017	Mon			Christmas Day
12/26/2017	Tue	CH4- 0%	Oxy- 19.8%	
12/27/2017	Wed	CH4- 0%	Oxy- 19.2%	
12/28/2017	Thu	CH4- 0%	Oxy- 19.1%	
12/29/2017	Fri	CH4- 0%	Oxy- 19.3%	
12/30/2017	Sat	CH4- 0%	Oxy- 20.1%	
12/31/2017	Sun	CH4- 0%	Oxy- 19.2%	

ND- Non Detect

CH4- 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: <u>DECEMBER 2017</u>

# Code	Sample ID	Location	Sample Date	Temp	рН	Total Chlorine	Free Chlorine	Total Ammonia	Free Ammonia	Nitrite ³	Nitrate	Coliform ²	HPC	Zone	Comments
Units/0	thers $ ightarrow$		MM/DD/YYYY	°C		mg/L	mg/L	// mg/L	mg/L	mg/L	mg/L	P/A	CFU/ml		
1 D	\$13-003	1948 W 252nd St	12/6/2017	17.9	7.71	2.90	0.05	0.64	0.00	0.005	ND	A	ND	1	Well/MWD Blend
2 D	S13-004	24632 S Moon Ave	12/6/2017	18.6	7.57	1.23	0.06	0.28	0.15	0.214	ND	Α	3	1	Well/MWD Blend
3 D	S13-008	25417 Pennsylvania Ave	12/6/2017	18.9	7.67	3.10	0.10	0.57	0.00	0.020	ND	A	ND	1	Well/MWD Blend
4 D	A	2052 Dawn St	12/6/2017	14.5	8.61	1.97	0.09	0.48	0.09	0.025	0.44	Α	ND	1_	Well/MWD Blend
5 D		Reservoir SP5	12/6/2017	19.4	7.57	3.50	0.08	0.72	0.00	0.004	ND	Α	ND	1	Well/MWD Blend
6 D	\$13-001	1912 W 259th St	12/6/2017	16.8	8.60	2.40	0.09	0.52	0.00	0.008	ND	Α .	ND	2	MWD Only
7 D	S13-002	26314 S Monte Vista Ave	12/6/2017	16.2	8.75	2.40	0.00	0.49	0.00	0.013	ND	Α	ND	3	MWD Only
8 D	S13-005	2500 PCH	12/6/2017	18.5	8.65	2.40	0.10	0.51	0.01	0.007	ND	_ A	ND	2	MWD Only
T	1 1				= 0.4	1 2.55	0.00	0.00	i Asa a		ND		ND	1	Well/MWD Blend
1 D	S13-003	1948 W 252nd St	12/13/2017	19.4	7.84	3.20	0.02	. 0.98	0.11	0.000	ND 0.4	A	ND ND	1	Well/MWD Blend
2 D	S13-004	24632 5 Moon Ave	12/13/2017	20.1	7.67	1.37	0.06	0.42	90.30 0.17	0.078 0.026	ND	A	ND ND	1	Well/MWD Blend
3 D	\$13-008	25417 Pennsylvania Ave	12/13/2017	18.7	7.83	3.00	0.09		-7 -5				ND ND	1	Well/MWD Blend
4 D	A	2052 Dawn St	12/13/2017	20.7	8.34	1.83	0.14	0.49	0.02	0.022	0.44	A	ND	1 1	Well/MWD Blend
5 D		Reservoir SP5	12/13/2017	20.2	7.83	3.51	0.05	1.16	0.15	0.000	ND	Α .	ND ND	2	MWD Only
6 D	S13-001	1912 W 259th St	12/13/2017	17.2	8.59	2.12	0.04	0.47 0.48	0.00	0.000	ND ND	A	ND ND	3	MWD Only
7 D		26314 S Monte Vista Ave	12/13/2017	16.8	8.58	1.89	0.04		0.01			A	ND	2	MWD Only
8 D	\$13-005	2500 PCH	12/13/2017	16.6	8.60	2.20	0.07	0.42	0.00	0.000	ND	A	ND	<u> </u>	INTO CITY
	L 545 000	404014/252-455	L 42/20/2047	17.3	7.98	3,20	0.19	1.00	0.03	0.011	ND	A	ND	1	Well/MWD Blend
1 D		1948 W 252nd St	12/20/2017		7.72	1.50	0.19	0.44	0.05	0.011	0.4	A	ND	1	Well/MWD Blend
2 D		24632 S Moon Ave	12/20/2017	18.2	7.72	3.40	0.11	0.44	0.23	0.030	ND	A	ND	1 1	Well/MWD Blend
3 D		25417 Pennsylvania Ave	12/20/2017	17.9 17.8	8.52	2.04	0.00	0.48	0.21	0.025	0.44	A	ND	1	Well/MWD Blend
4 D	A	2052 Dawn St	12/20/2017	19.5	7.78	3.75	0.08	1.00	0.18	0.012	ND	A	ND	1	Well/MWD Blend
5 D	S13-001	Reservoir SP5 1912 W 259th St	12/20/2017	16.5	6.30	2.40	0.08	0.49	0.04	0.012	ND	A	ND	2	MWD Only
<u> </u>		· · · · · · · · · · · · · · · · · · ·	12/20/2017	16.6	8.34	2.50	0.03	0.58	0.04	0.010	ND	A	ND	3	MWD Only
		26314 S Monte Vista Ave	12/20/2017	17.1	8.56	2.50	0.05	0.50	0.00	0.004	ND	A	ND ND	2	MWD Only
8 D	S13-005	2500 PCH	12/20/2017	17.1	8.30	2.30	0.03	, 0:30 , 7,5	[0.5/2-7 0.00 - 3/3/]	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	ILD	,,		, -	
1 D	S13-003	1948 W 252nd St	12/27/2017	17	7.8	2,9	0.1	0.80	0.15	0.013	ND	A	ND	1	Well/MWD Blend
2 D	S13-004	24632 S Moon Ave	12/27/2017	17.6	7.62	1.12	0.05	0.32	0.15	0.072	ND	Α	ND	1	Well/MWD Blend
3 D		25417 Pennsylvania Ave	12/27/2017	16,2	7.77	2.90	0.14	. 0.70	0.14	0.030	ND	A	NĐ	1	Weil/MWD Blend
4 D		2052 Dawn St	12/27/2017	14.2	8.42	2.06	0.20	0.51	0:06	0.015	0.46	Α	NĐ	1	Well/MWD Blend
5 D		Reservoir SP5	12/27/2017	18.9	7.71	3.31	0.04	> 0.78	0.02	0.005	ŇD	Α	NĐ	1	Well/MWD Blend
6 D		1912 W 259th St	12/27/2017	15.6	8.39	2.30	0.17	0:48	0.00	0.006	ND	Α	ND	2_	MWD Only
7 D		26314 S Monte Vista Ave	12/27/2017	16.0	8.25	2.20	0.12	0.47	0.11	0.010	ND	Α	ND	3	MWD Only
8 D		2500 PCH	12/27/2017	16.0	8.45	2.30	0.05	0.48	0.00	0.007	ND	Α	ND	2	MWD Only
			· · · · · · · · · · · · · · · · · · ·												
1 D	513-003	1948 W 252nd St												1	Well/MWD Blend
2 D	S13-004	24632 S Moon Ave						では、中国は対		* 25				1_	Well/MWD Blend
3 D	S13-008	25417 Pennsylvania Ave							美國 系统员	多 多形式外的。				1	Well/MWD Blend
4 D		2052 Dawn St	1					的人。这种话	Same and the same of the same					1	Well/MWD Blend
5 D	· "	Reservoir						E The Market		n Brown All				1	Well/MWD Blend
6 D	S13-001	1912 W 259th St						K WARP TO	4. 伊州流河南					2	MWD Only
7 D	S13-002	26314 S Monte Vista Ave						THE TAKE SE	The real of					3	MWD Only
8 D	S13-005	2500 PCH							55,34173			<u> </u>		2	MWD Only

^{&#}x27;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).

²Coliform results are part of weekly Bacti sampling results.

³The 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.