CITY OF LOMITA



Cypress Water Production Facility Monthly Status Report

July 2017

TABLE OF CONTENTS

COVER LETTER	. 1
A. BACKGROUND	2
B. WELL PRODUCTION AND OPERATIONS	2
C. OPERATIONAL INTERRUPTIONS	2
D. SAMPLE LOCATIONS	2
E. WATER QUALITY MONITORING	. 3
E1. IRON, MANGANESE AND COLOR	. 3
E2. FREE AND TOTALCHLORINE RESIDUALS	3
E3. TOTAL DISSOLVED SOLIDS (TDS), ODOR, HARDNESS AND METHANE	.3
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 ODOR	4
E4. NITRIFICATION MONITORING	4
F. TABLES	5

CITY COUNCIL

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



ADMINISTRATION

RYAN SMOOT
CITY MANAGER

CITY OF LOMITA

August 10, 2017

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</u> (CWPF) for the period of July 1 through July 31, 2017.

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 July 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 July 2017 maintaining water levels inside the reservoir ranging from 7 feet to 10 feet. The average flow from Well No. 5 was 527 gpm and 526 gpm from MWD. The blend ratio for month was 50% Well water and 50% MWD water. See Table 1 below for production totals for the month of July 2017.

Table 1. Monthly Production Totals.

	Production for July 2017								
Well No. 5	70.19	ac-ft	(22,869,681 gallons)						
MWD	69.28	ac-ft	(22,574,000 gallons)						
Combined Total	139.47	ac-ft	(45,443,681 gallons)						
Daily	4.50	ac-ft/day	(1,465,925 gallons/day)						

C. OPERATIONAL INTERRUPTIONS

There were no operational interruptions during the month of July 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 555 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 790 mg/L and 330 mg/L, respectively.

E3-2 HARDNESS

The sampling results for the month indicate the hardness levels of the blended water to be on average 240 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 0.43 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 July 2017 in Appendix B.

E3-5 ODOR

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

E4. NITRIFICATION MONITORING

Weekly Nitrification sampling was performed during the month of July 2017, see Appendix C.

F. TABLES

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

	SP1, Well Raw Water Discharge					SP2, Combined Pressure Filter Effluent			SP3, After chloramination static mixer; reservoir entry							
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
7/5/2017				10							ND	300	ND	50	5	15
7/12/2017	250	300	170	50	10	15	Α	Α	1	500	ND	300	ND	50	ND	15
7/19/2017		141.1		THE A	PEN H						ND	300	ND	50	ND	15
7/26/2017								2			ND	300	ND	50	ND	15

Notes:

Monthly- Orange; Weekly- Yellow

A – Absent

ND - Non Detect

*Per the SWRCB Drinking Water "Chemicals and Contaminants in Drinking Water" Regulations

Table 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 NH₃	Free Cl	Total CI	Total NH₃	Free CI	Total CI	Total NH₃		
7/5/2017	4.26	0.46	4.73	0.96	0.43	3.90	0.71	0.10	3.45	0.72		
7/12/2017	4.62	0.33	4.96	0.95	0.42	4.05	0.71	0.05	3.39	0.69		
7/19/2017	4.63	0.46	4.66	0.84	0.45	4.04	0.68	0.13	3.48	0.65		
7/26/2017	4.93	0.50	4.87	0.91	0.45	4.32	0.75	0.12	3.51	0.67		

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

E.			T.C	T.O.N. Hardness, mg/L					Methane (Water), 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
7/5/2017			550	500-750	2	3						0.30
7/12/2017	790	330	560	500-750	2	3	350	120	240	180-250	3.7	0.45
7/19/2017		1	570	500-750	2	3					1	0.53
7/26/2017			540	500-750	2	3						0.44
Average			555	500-750	2	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 – July 2017 Cypress Water Production Facility City of Lomita; System No. 1910073

	[reguenes/	MACL /	7/5	7/40	7/19	7/26		Comments
Sample Locations	Frequency	MCL/	7/5	7/12			c th. a.u.	CONTRACTOR
and Parameters		Goal	1stWk	2 nd Wk	3rdWk	4 th Wk	5 th Wk	and/or
			or Mo.	1				Other Info.
			- STATES INCOME STATES					1
			Result					
			(date)			L	Lymagga en a	
SP1 Also called					langer duc			T*011 : : : : : : : : : : : : : : : : : :
TDS, ppm	Monthly	See SP5	790	Operations	Data/Inforr	nation:		*Chlorine injected after SP1, before entering
Hardness	Monthly	See SP5	7/12/17 350	CWPF opera	tion days			the greensand filter.
naruness	Worlding		7/12/17	0 14/ 11 5 1	5-11	9 507	u tatal arad	
CH4, ppm	Monthly	See SP5	3.7	On Well 5: 1	Daily average	now - 527 gpm	i; totai prod.	
		See SP3	7/12/17	Combined V	Vell 5/MWD da			
Iron, ppb	Monthly	See SF3	250 7/12/17		-50% WELL:5	0% MWD; tota	al prod	
Manganese, ppb	Monthly	See SP3	170	139.47 AF				
Manganese, ppb	11101111111		7/12/17	Chlorine Do	sage: N/A*			
Color, units	Monthly	See SP3	10		9	,		
T 1 10 116 D A	NA contlote	Λ	7/12/17					
Total Coliform, P or A	Monthly	Α	A 7/12/17					
SP2 Also called	Filter Efflu	ent or Si	THE RESERVE AND ADDRESS OF THE PARTY NAMED IN					
Total Coliform, P or A	Monthly	A	A		and the second second			*Ammonia added after
HPC,MPN/100 ml	Monthly	500	1	Ammonia D	osage: N/A*			filter effluent
Free Cl Res, ppm	Continuous		4 62: Ran	ge: 4.26 – 4	.93			1
SP3 Also called	the Site Af					ending or	Site#4	
	Weekly	300	ND	ND ND	ND	ND	I	
Iron, ppb Manganese, ppb	Weekly	50	ND	ND	ND	ND		1
Mandanese dod								
		000000000000000000000000000000000000000						
Color	Weekly	15	5	ND	ND	ND	1	
Color Free and Total CI Res,		15 Free CI: /	5 Average: 0.4	ND 5; Range: 0.	ND 33 – 0.50		,	
Color Free and Total Cl Res, ppm	Weekly Continuous	15 Free Cl: 7 Total Cl: 7 Ammonia	5 Average: 0.4 Average: 4.8 : Average: 0	ND 5; Range: 0. 2; Range: 4 .91; Range:	ND 33 - 0.50 .66 - 4.96 0.84 - 0.96	ND		
Color Free and Total Cl Res, ppm	Weekly Continuous	15 Free Cl: 7 Total Cl: 7 Ammonia	5 Average: 0.4 Average: 4.8 : Average: 0	ND 5; Range: 0. 2; Range: 4 .91; Range:	ND 33 - 0.50 .66 - 4.96 0.84 - 0.96	ND	oint/Phosp	hate Injection.
Color Free and Total CI Res, ppm SP4 Also called	Weekly Continuous	15 Free Cl: A Total Cl: A Ammonia Influent (5 Average: 0.4 Average: 4.8 : Average: 0 or the Site e Dosage: 0	ND .5; Range: 0. 2; Range: 4 .91; Range: • Well 5/M'	ND 33 – 0.50 .66 – 4.96 0.84 – 0.96 WD Water	ND	oint/Phosp	
Color	Weekly Continuous	15 Free CI: A Total CI: A Ammonia Influent (Phosphat Free CI: A	5 Average: 0.4 Average: 4.8 : Average: 0 or the Site e Dosage: 0 Average: 0.4	ND .5; Range: 0. 2; Range: 4. .91; Range: • Well 5/M' 0.28 mg/L .5; Range: 0.	ND 33 - 0.50 .66 - 4.96 0.84 - 0.96 WD Water	ND	oint/Phosp	CI/NH3 Ratio:
Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res,	Weekly Continuous Reservoir	Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A	5 Average: 0.4 Average: 4.8 : Average: 0 or the Site e Dosage: 0 Average: 0.4 Average: 4.	ND 5; Range: 0.2; Range: 4.91; Range: 6 Well 5/M 0.28 mg/L 5; Range: 0.10; Range: 3	ND 33 - 0.50 .66 - 4.96 0.84 - 0.96 WD Water 42 - 0.48 .90 - 4.32	ND	oint/Phosp	
Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm	Weekly Continuous Reservoir Continuous	Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia	5 Average: 0.4 Average: 4.8 : Average: 0 or the Site e Dosage: 0 Average: 0.4 Average: 4.7 : Average: 0	ND 5; Range: 0. 2; Range: 4. 91; Range: e Well 5/M 0.28 mg/L 5; Range: 0. 10; Range: 3. 72; Range:	ND 33 - 0.50 .66 - 4.96 0.84 - 0.96 WD Water 42 - 0.48 .90 - 4.32 0.68 - 0.75	ND Blend Po		CI/NH3 Ratio: 5.72
Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection Free and Total CI Res, ppm SP5 Also called	Weekly Continuous Reservoir Continuous Reservoir	15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent	5 Average: 0.4 Average: 4.8 : Average: 0 or the Site e Dosage: 0 Average: 0.4 Average: 4.7 : Average: 0	ND 5; Range: 0. 2; Range: 4. 91; Range: e Well 5/M 0.28 mg/L 5; Range: 0. 10; Range: 3. 72; Range:	ND 33 - 0.50 .66 - 4.96 0.84 - 0.96 WD Water 42 - 0.48 .90 - 4.32 0.68 - 0.75	ND Blend Po		CI/NH3 Ratio: 5.72
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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	Weekly Continuous Reservoir Continuous Reservoir Weekly	Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm	5 Average: 0.4 Average: 4.8 : Average: 0 or the Site e Dosage: 0 Average: 0.4 Average: 4.6 : Average: 0 or Site#5.	ND 5; Range: 0.2; Range: 4.91; Range: 6 Well 5/M 0.28 mg/L 5; Range: 0.10; Range: 3.72; Range: 560 240	ND 33 - 0.50 .66 - 4.96 0.84 - 0.96 WD Water 42 - 0.48 .90 - 4.32 0.68 - 0.75 harges in	Blend Po		CI/NH3 Ratio: 5.72 stribution system % CH4 Removal:
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	Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly	Total CI: A Ammonia Influent (Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm SI Goal: 180-250ppm Goal: from PA	5 Average: 0.4 Average: 4.8 : Average: 0 or the Site e Dosage: 0 Average: 0.4 Average: 4.6 : Average: 0 or Site#5. 550 0.30	ND	ND 33 - 0.50 .66 - 4.96 0.84 - 0.96 WD Water 42 - 0.48 .90 - 4.32 0.68 - 0.75 harges in 570 0.53	Blend Po		CI/NH3 Ratio: 5.72 tribution system
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	Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly	15 Free CI: A Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Effluent SI Goal: 500-750ppm SI Goal: 180-250ppm Goal: from PA 1	5 Average: 0.4 Average: 4.8 : Average: 0 or the Site e Dosage: 0 Average: 0.4 Average: 4.7 : Average: 0 or Site#5. 550 0.30 2	ND -5; Range: 0. 2; Range: 4 -91; Range: 2 - Well 5/M -28 mg/L -5; Range: 0 -10; Range: 3 -72; Range: -560 -240 -0.45 -2	ND 33 - 0.50 .66 - 4.96 0.84 - 0.96 WD Water 42 - 0.48 .90 - 4.32 0.68 - 0.75 harges in 570 0.53 2	Blend Po		CI/NH3 Ratio: 5.72 tribution system % CH4 Removal: 88.4
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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 C CH4 ppmv; using	Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Cypress Re	Total CI: A Ammonia Influent (Phosphat Free CI: A Total CI: A Ammonia Free CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Ammonia Effluent SI Goal: 180-250ppm Goal: from PA 2 Free CI: A Ammonia	5 Average: 0.4 Average: 0.4 Average: 0 or the Site e Dosage: 0 Average: 0.4 Average: 0.5 550 0.30 2 Average: 0.0 Average: 0.0 Average: 3.5 : Average: 0.0 Average: 0.0 Average: 0.0 Average: 0.0 Average: 0.0	ND -5; Range: 0.2; Range: 4.91; Range: 4.91; Range: 4.91 5/M -2.8 mg/L -5; Range: 0.10; Range: 3.72; Range: 560 -240 -0.45 -2 -2 -29; Range: 0.00; Range: 3.3.69; Range: 0.00%	ND 33 - 0.50 .66 - 4.96 0.84 - 0.96 WD Water 42 - 0.48 .90 - 4.32 0.68 - 0.75 harges in 570 0.53 2 05 - 0.13 39 - 3.69 0.65 - 0.72	Blend Po		CI/NH3 Ratio: 5.72 tribution system % CH4 Removal: 88.4 CI/NH3 Ratio:
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 C CH4 ppmv; using Portable Device	Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Cypress Re Daily (from log)	Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Free CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA Total CI: A Ammonia eservoir. Goal- LEL	5 Average: 0.4 Average: 4.8 : Average: 0 or the Site e Dosage: 0 Average: 0.4 Average: 0.0 or Site#5. 550 0.30 2 Average: 0.0 Average: 3.5 : Average: 0 CH4 Average: 0 CH4 Rarr	ND -5; Range: 0.2; Range: 4.91; Range: 4.91; Range: 4.91 5/M -2.8 mg/L -5; Range: 0.10; Range: 3.72; Range: 560 -240 -0.45 -2 -9; Range: 0.00% -3, Range: 0.00%	ND 33 - 0.50 .66 - 4.96 0.84 - 0.96 WD Water 42 - 0.48 .90 - 4.32 0.68 - 0.75 harges in 570 0.53 2 05 - 0.13 39 - 3.69 0.65 - 0.72	to Zone 1 540 0.44 2	of the dis	CI/NH3 Ratio: 5.72 tribution system % CH4 Removal: 88.4 CI/NH3 Ratio: 5.09
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 CICH4 ppmv; using Portable Device SP 6 MWD Source	Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Cypress Re Daily (from log) Ce Feeding	Total CI: A Ammonia Influent Phosphat Free CI: A Total CI: A Ammonia Free CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA Total CI: A Ammonia eservoir. Goal- LEL	5 Average: 0.4 Average: 4.8 : Average: 0 or the Site e Dosage: 0 Average: 0.4 Average: 0.0 or Site#5. 550 0.30 2 Average: 0.0 Average: 3.5 : Average: 0 CH4 Average: 0 CH4 Rarr	ND .5; Range: 0.2; Range: 4.91; Range: 4.91; Range: 4.91; Range: 4.91; Range: 4.91; Range: 5; Range: 0.10; Range: 3.72; Range: 560 240 0.45 29; Range: 0.45 299; Range: 0.69;	ND 33 - 0.50 .66 - 4.96 0.84 - 0.96 WD Water 42 - 0.48 .90 - 4.32 0.68 - 0.75 harges in 570 0.53 2 05 - 0.13 39 - 3.69 0.65 - 0.72	to Zone 1 540 0.44 2	of the dis	CI/NH3 Ratio: 5.72 tribution system % CH4 Removal: 88.4 CI/NH3 Ratio: 5.09
Color Free and Total CI Res, ppm SP4 Also called Phosphate Injection	Weekly Continuous Reservoir Continuous Reservoir Weekly Monthly Weekly Monthly Continuous Cypress Re Daily (from log)	15 Free CI: A Ammonia Influent (Phosphat Free CI: A Total CI: A Ammonia Free CI: A Ammonia Effluent SI Goal: 500-750ppm Goal: from PA 1 Free CI: A Ammonia Servoir. Goal - LEL CWPF. A	5 Average: 0.4 Average: 4.8 : Average: 0 or the Site e Dosage: 0 Average: 0.4 Average: 0.0 or Site#5. 550 0.30 2 Average: 0.0 Average: 3.5 : Average: 0 CH4 Average: 0 CH4 Rarr	ND -5; Range: 0.2; Range: 4.91; Range: 4.91; Range: 4.91 5/M -2.8 mg/L -5; Range: 0.10; Range: 3.72; Range: 560 -240 -0.45 -2 -9; Range: 0.00% -3, Range: 0.00% -4, Range: 0.00%	ND 33 - 0.50 .66 - 4.96 0.84 - 0.96 WD Water 42 - 0.48 .90 - 4.32 0.68 - 0.75 harges in 570 0.53 2 05 - 0.13 39 - 3.69 0.65 - 0.72	to Zone 1 540 0.44 2	of the dis	CI/NH3 Ratio: 5.72 tribution system % CH4 Removal: 88.4 CI/NH3 Ratio: 5.09

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

APPENDIX A

LABORATORY RESULTS



20 July 2017 Clinical Lab No.: 17G0322

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

Project Name: Standard Analysis

Sub Project: CWPF 1st week July, 2017 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 07/05/17 . 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:17G032224373 Walnut AvenueSub Project:CWPF 1st week July, 2017 Compliance SamplingReceived:07/05/17 15:20Lomita CA, 91717Project Manager:Mark AndersenReported:07/20/17

Reservoir Influent Site #3		17G0322-	01 (Water)		Sample Da	te: 07/05/17	7:20 S	ampler: I	atrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	5.05		N/A	mg/L	07/05/17	07/05/17	1727132	
pH (Field)	Field	7.43		N/A	pH Units	07/05/17	07/05/17	1727132	
Temperature (Field)	Field	23.3		N/A	°C	07/05/17	07/05/17	1727132	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	07/05/17	07/05/17	1727145	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	07/14/17	07/14/17	1728176	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	07/14/17	07/14/17	1728176	
Reservoir Effluent Site #5		17G0322-	02 (Water)		Sample Da	te: 07/05/17	7:25 S	ampler: I	Patrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.51		N/A	mg/L	07/05/17	07/05/17	1727132	
pH (Field)	Field	7.77		N/A	pH Units	07/05/17	07/05/17	1727132	
Temperature (Field)	Field	21		N/A	°C	07/05/17	07/05/17	1727132	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	07/05/17	07/05/17	1727145	
Odor Threshold	EPA 140.1-M	2	1	3	TON	07/05/17	07/05/17	1727145	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	550	5.0	1000	mg/L	07/11/17	07/14/17	1728057	
ND Analyte NOT DETECTED at or	above the reporting limit								



July 14, 2017



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: 17G0322

Lab Number:

1070702-01

Enclosed are results for sample(s) received 7/07/17 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 17G0322

IST0702-01

SENDING LABORATORY:	RECEIVING LABORA	TORY:
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 Avenu City of Industry, CA 91 Phone :(626) 964-4032 Fax:	748
Please email results to Project Manager: Stu Start [] glaubig@clinical-lab.com [] ybarra@cl		n [] nelson@clinical-lab.com
California EDT transfer those samples Water Trax Upload Client:	with PS codes provided [] Yes [No	
Turn Around Time [] 10 Days [1/5] Subcontract Comments:	Days [] Other Days	
Analysis		Comments
Sample ID: Reservoir Effluent Site #5 / 17G032	2-02 Sampled: 07/05/17 07:25 PS Co Water	ode: WTX ID:
Methane RSK175		Report in mg/L
Containers Supplied: 40ml Amber Vial (B) 40	ml Amber Vial (C)	
		an a

 Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

17G0322

Date Received:

07/07/17

Matrix:

Water

Reporting Units: mg/L

RSK175	

Lab No.:	107070	2-01			
	Reservoir	Effluent			
Client Sample I.D.:	Site #5/17	G0322-			
	02				
Date/Time Sampled:	7/5/17	7:25			
Date/Time Analyzed:	7/13/17	14:27			
QC Batch No.:	170713G	C8A1			
Analyst Initials:	AS	3			
Dilution Factor:	1.0				
	Result	RL			
ANALYTE	mg/L	mg/L			
Methane	0.30	0.0010			

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _

Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc. -

page 1 of 1

Date 7/14/17

QC Batch No.:

170713GC8A1

Matrix:

Water

Units:

mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab	Lab No.:		Method Blank		LCS		LCSD		
Date/Time An	Date/Time Analyzed:		7/13/17 14:14		7/13/17 13:32		7/13/17 13:45		
Analyst Init	ials:	A	AS		AS		AS		
Data	file:	13jul004		13jul001		13jul002			
Dilution Fac	ctor:	1	1.0		1.0		1.0		****
ANALYTE	ANALYTE PQL		Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	99	70-130%	102	70-130%	2.4	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By:	111/all-	6	Date:	7/14/17	
	Mark J. Johnson		_		
	Operations Manager				

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

1760322

					•		*						7		
Client		City of Lomita	Sys	System Number	mber				Analysis		Requested	-			
Address	. 24	24373 Walnut Avenue			101	1910072					-				
		Lomita, CA 91717			2	200					M				
Phone #		(310) 325-9830		ď	estination	Destination Laboratory	7				eth				
Fax#		(310) 325-3627		2	(] Clinical	[X] Clinical Laboratory	2			Tota	ane		BA		
Project		Standard Analysis		4	SWQCB C	RWQCB Compliance				l Dis			.CT		
Sub Droject	CWPF 1st w	CWPF 1st week of July, 2017 Compliance			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	yes			ngan Iron	solve	ater		/TC)doi	
oup rioject		Sampling			EL	ELAP#			ese	ed So			/HI	r	
Comments	For TC/EC/BA	For TC/EC/BACT see weekly Distro CoC			7	0				lids	RSK		PC		
Sampled by		Patrick McCue			2	0001					175)	03)			
Date Time		Sample Idenitification	Matrix	Type	Preserv	Ŧď.	Temp.	Total)				Comments / P.S. Codes
7-5-17 6720 Reservoir Influent Site #3	Reservoir Influ	Jent Site #3	MG	<u>*</u>	A/X	7.43	23.3	505	×		×				
5260 61-5-6	072ら Reservoir Effluent Site #5	uent Site #5	MG	*	۷/۷	777	.0.1 7	3.51			×			×	
	C 72名 Reservoir Effluent Site #5	uent Site #5	MG	181	HCT.					×	×				
									-		+	ļ_		-	
										3					
											-				
											-				
									-		-				
Preservatives: (1) Na ₃ S ₂ O ₃ (2) HCI (3) HNO ₃	2S ₂ O ₃ (2) HCI (3) HI	INO3 (4) NH4CI	Matrix: DW-Drinkir		g Water, V	//////////////////////////////////////	ng Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air	-Storm W	ater, GW	- Groun	d Wate	.r, A-A		-	Type- 1-Routine, 2-Repeat, 3-
(5) H2SO4 (6) Na	(5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:	Other:						Replac	Replacement, 4-Special W-Well D- Dist.	4-Speci	N-W	ell D-	Dist.		
Relinquished By (Sign)	By (Sign)	Print Name / Company				Date / Time	me	\	7	**************************************	ceived By (Sign)	y (Sig	n)		Print Name / Company
Patrick McCue		City of Lomita	3	1-5-1	1	shil	10	4		5	1	١,		1	MANNO CONS
Store M	465-			0	-	2,70				1	N	2		M	K MUKS
Control of the contro		Sympomore, C	Ñ	Á	Sa		Samples received: (A.). On ice	i no 7~		[X] Interest	\) Cuk	र्गिवी	seals T) Custody seals Temp 169 () F X) C
Shipped Via		Fed X Golden State UPS	Sd/I	Clien	110	Other					Page	1 of	-		



28 July 2017 Clinical Lab No.: 17G1201

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

Project Name: Standard Analysis

Sub Project: Monthly Compliance / Monthly 2nd Week of July

Enclosed are the results of the analyses for samples received at the laboratory on 07/12/17 . 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:17G120124373 Walnut AvenueSub Project:Monthly Compliance / Monthly 2nd Week of JulyReceived:07/12/17 15:25

Lomita CA, 91717 Project Manager: Mark Andersen

Sub Project: Monthly Compliance / Monthly 2nd Week of July Received: 07/12/17 15:2

Project Manager: Mark Andersen Reported: 07/28/17

Raw Water Site #1		17G1201-	01 (Water)		Sample Da	te: 07/12/17	8:59 S	Sampler: 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	07/12/17	07/12/17	1729006	
pH (Field)	Field	7.42		N/A	pH Units	07/12/17	07/12/17	1729006	
Temperature (Field)	Field	23		N/A	°C	07/12/17	07/12/17	1729006	
Microbiology Analyses									
Total Coliform	SM 9223	Α		N/A	P/A	07/12/17	07/13/17	1728174	
E. Coli	SM 9223	A		N/A	P/A	07/12/17	07/13/17	1728174	
Plate Count	SM9215B	690	1	500	CFU/ml	07/12/17	07/14/17	1729047	Note
General Physical Analyses									
Apparent Color	SM 2120BM	10.0	3.0	15	Color Units	07/12/17	07/12/17	1728169	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	350	6.6	N/A	mg/L	07/24/17	07/24/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	790	5.0	1000	mg/L	07/19/17	07/24/17	1729097	
Metals									
Calcium (Ca)	EPA 200.7	91	1.0	N/A	mg/L	07/24/17	07/24/17	1730007	
Iron (Fe)	EPA 200.7	250	100	300	ug/L	07/24/17	07/24/17	1730022	
Magnesium (Mg)	EPA 200.7	29	1.0	N/A	mg/L	07/24/17	07/24/17	1730007	
Manganese (Mn)	EPA 200.7	170	20	50	ug/L	07/24/17	07/24/17	1730022	
Filter Effluent (Free Chlorine) Site #2		17G1201-	02 (Water)		Sample Da	te: 07/12/17	8:55 S	Sampler: D	G M
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses				_					
Cl Res Total (Field)	Field	6.51		N/A	mg/L	07/12/17	07/12/17	1729006	
pH (Field)	Field	7.43		N/A	pH Units	07/12/17	07/12/17	1729006	
Temperature (Field)	Field	23.2		N/A	°C	07/12/17	07/12/17	1729006	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	07/12/17	07/13/17	1728174	
E. Coli	SM 9223	A		N/A	P/A	07/12/17	07/13/17	1728174	
Plate Count	SM9215B	1	1	500	CFU/ml	07/12/17	07/14/17	1729047	



Lomita, City ofProject:Standard AnalysisWork Order:17G120124373 Walnut AvenueSub Project:Monthly Compliance / Monthly 2nd Week of JulyReceived:07/12/17 15:25

Lomita CA, 91717 Project Manager: Mark Andersen

Received: 07/12/17/15 Reported: 07/28/17

Filter Effluent (Total Chlorine) Site #3		17G1201-	03 (Water)		Sample Da	te: 07/12/17	7 8:50 Sa	mpler: D	G M
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	5.82		N/A	mg/L	07/12/17	07/12/17	1729006	
pH (Field)	Field	7.54		N/A	pH Units	07/12/17	07/12/17	1729006	
Temperature (Field)	Field	23.3		N/A	°C	07/12/17	07/12/17	1729006	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	07/12/17	07/12/17	1728169	
<u>Metals</u>									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	07/24/17	07/24/17	1730022	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	07/24/17	07/24/17	1730022	
Zone #2 Site #6		17G1201-	04 (Water)		Sample Da	te: 07/12/17	7 8:40 Sa	mpler: D	GM
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	2.54		N/A	mg/L	07/12/17	07/12/17	1729006	
pH (Field)	Field	8.3		N/A	pH Units	07/12/17	07/12/17	1729006	
Temperature (Field)	Field	18.6		N/A	°C	07/12/17	07/12/17	1729006	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	120	6.6	N/A	mg/L	07/24/17	07/24/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	330	5.0	1000	mg/L	07/19/17	07/24/17	1729097	
<u>Metals</u>									
Calcium (Ca)	EPA 200.7	27	1.0	N/A	mg/L	07/24/17	07/24/17	1730007	



Lomita, City ofProject:Standard AnalysisWork Order:17G120124373 Walnut AvenueSub Project:Monthly Compliance / Monthly 2nd Week of JulyReceived:07/12/17 15:25Lomita CA, 91717Project Manager:Mark AndersenReported:07/28/17

	17G1201-	05 (Water)		Sample Da	ite: 07/12/17	/ 8:45 Sa	mpler: D	GM
Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field	3.45		N/A	mg/L	07/12/17	07/12/17	1729006	
Field	7.69		N/A	pH Units	07/12/17	07/12/17	1729006	
Field	21.5		N/A	°C	07/12/17	07/12/17	1729006	
EPA 140.1-M	2	1	3	TON	07/12/17	07/12/17	1728169	
Calculated	240	6.6	N/A	mg/L	07/24/17	07/24/17	[CALC]	
SM 2540C	560	5.0	1000	mg/L	07/19/17	07/24/17	1729097	
EPA 200.7	60	1.0	N/A	mg/L	07/24/17	07/24/17	1730007	
EPA 200.7	21	1.0	N/A	mg/L	07/24/17	07/24/17	1730007	
	Field Field Field EPA 140.1-M Calculated SM 2540C EPA 200.7	Method Result Field 3.45 Field 7.69 Field 21.5 EPA 140.1-M 2 Calculated 240 SM 2540C 560 EPA 200.7 60	Method Result Rep. Limit Field 3.45 Field 7.69 Field 21.5 1 EPA 140.1-M 2 1 Calculated 240 6.6 SM 2540C 560 5.0 EPA 200.7 60 1.0	Method Result Rep. Limit MCL Field 3.45 N/A Field 7.69 N/A Field 21.5 N/A EPA 140.1-M 2 1 3 Calculated 240 6.6 N/A SM 2540C 560 5.0 1000 EPA 200.7 60 1.0 N/A	Method Result Rep. Limit MCL Units Field 3.45 N/A mg/L Field 7.69 N/A pH Units Field 21.5 N/A °C EPA 140.1-M 2 1 3 TON Calculated 240 6.6 N/A mg/L SM 2540C 560 5.0 1000 mg/L EPA 200.7 60 1.0 N/A mg/L	Method Result Rep. Limit MCL Units Prepared Field 3.45 N/A mg/L 07/12/17 Field 7.69 N/A pH Units 07/12/17 Field 21.5 N/A °C 07/12/17 EPA 140.1-M 2 1 3 TON 07/12/17 Calculated 240 6.6 N/A mg/L 07/24/17 SM 2540C 560 5.0 1000 mg/L 07/19/17 EPA 200.7 60 1.0 N/A mg/L 07/24/17	Method Result Rep. Limit MCL Units Prepared Analyzed Field 3.45 N/A mg/L 07/12/17 07/12/17 Field 7.69 N/A pH Units 07/12/17 07/12/17 Field 21.5 N/A °C 07/12/17 07/12/17 EPA 140.1-M 2 1 3 TON 07/12/17 07/12/17 Calculated 240 6.6 N/A mg/L 07/24/17 07/24/17 SM 2540C 560 5.0 1000 mg/L 07/19/17 07/24/17 EPA 200.7 60 1.0 N/A mg/L 07/24/17 07/24/17	Method Result Rep. Limit MCL Units Prepared Analyzed Batch Field 3.45 N/A mg/L 07/12/17 07/12/17 1729006 Field 7.69 N/A pH Units 07/12/17 07/12/17 1729006 Field 21.5 N/A °C 07/12/17 07/12/17 1729006 EPA 140.1-M 2 1 3 TON 07/12/17 07/12/17 1728169 Calculated 240 6.6 N/A mg/L 07/24/17 07/24/17 [CALC] SM 2540C 560 5.0 1000 mg/L 07/19/17 07/24/17 1729007 EPA 200.7 60 1.0 N/A mg/L 07/24/17 07/24/17 1730007

Note Botified Mark 7/17/17, 1359

ND Analyte NOT DETECTED at or above the reporting limit



July 24, 2017

EPA Methods TO3, TO14A, TO15, 25C/3C,

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: 17G1201

Lab Number:

1071701-01/02

Enclosed are results for sample(s) received 7/17/17 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 17G1201

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 [v] styles@clinical-lab.com [] nelson@clinical-lab.com
California EDT transfer those samples with PS co Water Trax Upload Client:	odes provided [] Yes [] No [] Yes [] No
Turn Around Time [] 10 Days [\sqrt{5 Days} [] Subcontract Comments:	Other Days
Analysis	Comments
Sample ID: Raw Water Site #1 / 17G1201-01	Sampled: 07/12/17 08:59 PS Code:
81	Water WTX ID:
Methane RSK175	Report in mg/L
Methane RSK175 Containers Supplied:	Report in mg/L
Containers Supplied:	Report in mg/L Vial w/ Na2S2O3 (C)
Containers Supplied:	Vial w/ Na2S2O3 (C) Sampled: 07/12/17 08:45 PS Code:
Containers Supplied: 40mL Amber Vial w/ Na2S2O3 (B) 40mL Amber	Vial w/ Na2S2O3 (C)
Containers Supplied: 40mL Amber Vial w/ Na2S2O3 (B) 40mL Amber Sample ID: Reservoir Effluent Site #5 / 17G1201-05	Vial w/ Na2S2O3 (C) Sampled: 07/12/17 08:45 PS Code:
Containers Supplied: 40mL Amber Vial w/ Na2S2O3 (B) 40mL Amber Sample ID: Reservoir Effluent Site #5 / 17G1201-05	Vial w/ Na2S2O3 (C) Sampled: 07/12/17 08:45 PS Code: Water WTX ID:

Date / Time

Received By

Received By

Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

17G1201

Date Received:

07/17/17

Matrix:

Water

Reporting Units: mg/L

RSK175

Lab No.:	I07170	1-01	107170	01-02		
Client Sample I.D.:	Raw Wa #1/17G1		Reservoir Site #5/17 05	'G1201-		
Date/Time Sampled:	7/12/17	7/12/17 8:59		8:45		
Date/Time Analyzed:	7/24/17	9:44	7/24/17	9:57		
QC Batch No.:	1707240	GC8A1	1707240	GC8A1		
Analyst Initials:	AS	S	AS	5		
Dilution Factor:	1.0)	1.0)		
ANALYTE	Result mg/L	RL mg/L	Result mg/L	RL mg/L		
Methane	3.7	0.0010	0.45	0.0010		

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson

Operations Manager

The cover letter is an integral part of this analytical report

Date 7-24-17

QC Batch No.:

170724GC8A1

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 An	alyzed:	7/24/	17 9:31	7/24	17 8:56	7/24/	17 9:18		
Analyst Init	tials:	Ι	AS		AS	38	AS		
Data	file:	24j	u1004	24	jul002	24	jul003		
Dilution Fac	ctor:	1	1.0		1.0		1.0		
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	108	70-130%	109	70-130%	1.0	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By:

Mark J. Johnson

Operations Manager

Date: 7-24-17

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

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Clinical Lab	oratory o	Clinical Laboratory of San Bernardino, Inc.	, C.							/	h	+	$\mathcal{N}_{_{\emptyset}}$	(Сћаг	in of	Chain of Custody	
		1991201					was	•			4	$-\infty$	Al +	74)	•	
Client		City of Lomita	Svs	System Number	mber				Anal	Analysis Reguested	2001		.]					
Addition	255	73 11/2								-	-			-	\mid	-		
Audiess	C+7	Lomita CA 91717			1 9	1910073	~											
Db050 #		(310) 335 0030			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	100						ŀ			/let			
# DIOIL		0505-5030		1	Jestinati	Destination Laboratory	Rory					let			har			
Fax #		(310) 325-3627			[X] Clinic	[X] Clinical Laboratory	Itory			ror	Т	etr		-				
Project	S	Standard Analysis			RWQCB	RWQCB Compliance	a)Ce					oph	(
Cub Droiost	Monthly C	Monthly Compliance/ Monthly 2nd				YES				C. C		ic I	Col	Ode				
oup rigger		week of July			Ш	ELAP#					lifo	Plat	or		ness FR)			-
Comments			:		7	0			Solic	nese	rm	e Cou			(RS			
Sampled by		DGM			-	000			ls			ınt			K 175			
Date Time	Sam	Sample Idenitification	Matrix	Type	Preserv	Temp.	=	Total										
7-12-17 0859		Raw Water Site #1	85	<u>%</u> 1	N.X	23.00	242	8	×	<u>×</u>	-		×	\vdash	-			
12-17 10859	<u> </u>	Raw Water Site #1) ()	<u> </u>	2,7					×	×	×			×	×		
	-	Raw Water Site #1	. <u>8</u>	_≥	1,7													
7-12-17 0855	Filter Effl	Filter Effluent (Free Chlorine) Site#2	DW	WI	1,7	23.52	7,43	15.0		×	<i>×</i>	/						
7-12-170850	Filter Efflu	Filter Effluent (Total Chlorine) Site#3	Ma	<u> </u>	Ž	233°	7.54	5.82		 	_		×		_			
7-12-17 OBHO		Zone #2 Site #6	DW	a	NA	186°	8,30	7.54	Х							×		
742-17 0545	Rese	Reservoir Effluent Site #5	»a	£	Z	21.5°	7.69	345	×					×	_	×		
17-12-17 0845	Rese	Reservoir Effluent Site #5	NO.	=	2,7										×			
Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCI (3) HNO3 (4) NH4CI	(2) HCI (3) HNC	O3 (4) NH4CI	Matrix: DM	DW-Dri	ıking Wa	ter, WW-I	-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air	r, SW-Stor	m Wate	r, GW	- Grou	M pu	ater, A	-Air			Type- 1-	-1-
(5) H2SO4 (6) Na2SO3	(7) Cold (8) Ot	ther:				2	Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D-Dist.	epeat, 3-R	placer	nent, 4	-Spec	ial W	.We//	D- Dis	ان			
Relinquished By (Sign)	Sign)	Print Name / Company				Date / Time	Time		\rightarrow		gecejved	ed 🚯	(Sign)	<i>(1</i>)		Pri	Print Name / Company	pany
Patrick McCue		City of Lomita, CA		7/1	111		:30		\times	7		7	>			74	nam/c	2887
Patrick Mc C.		J. Lucello / Cuso	3	7.12	12.0	13.5	~		7	B	Je Je		K	gr	7)	19a#	
Comments:	3				Sampl	Samples received: 7	X	On ice () Intact	act	ြ ပ	Cust	ustody seals	eals	Temp	ر ا	.S ()F	X
Shipped Via		Fed X Golden State	UPS	-	Client	Other	,r					Page	3e_1_	1-fo				



02 August 2017 Clinical Lab No.: 17G1752

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

Project Name: Standard Analysis

Sub Project: CWPF 3rd week of July, 2017 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 07/19/17 . 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:17G175224373 Walnut AvenueSub Project:CWPF 3rd week of July, 2017 Compliance Sampling Received:07/19/17 15:35Lomita CA, 91717Project Manager:Mark AndersenReported:08/02/17

Field Analyses Cl Res Total (Field) pH (Field) Temperature (Field) General Physical Analyses Apparent Color Metals Iron (Fe) Manganese (Mn) Reservoir Influent Site #1 Analyte Field Analyses Cl Res Total (Field)	Method Field Field	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Cl Res Total (Field) pH (Field) Temperature (Field) General Physical Analyses Apparent Color Metals Iron (Fe) Manganese (Mn) Reservoir Influent Site #1 Analyte Field Analyses		4 85							
pH (Field) Temperature (Field) General Physical Analyses Apparent Color Metals Iron (Fe) Manganese (Mn) Reservoir Influent Site #1 Analyte Field Analyses		4 85							
Temperature (Field) General Physical Analyses Apparent Color Metals Iron (Fe) Manganese (Mn) Reservoir Influent Site #1 Analyte Field Analyses	Field	7.03		N/A	mg/L	07/19/17	07/19/17	1729142	
General Physical Analyses Apparent Color Metals Iron (Fe) Manganese (Mn) Reservoir Influent Site #1 Analyte Field Analyses		7.58		N/A	pH Units	07/19/17	07/19/17	1729142	
Apparent Color Metals Iron (Fe) Manganese (Mn) Reservoir Influent Site #1 Analyte Field Analyses	Field	23.2		N/A	°C	07/19/17	07/19/17	1729142	
Metals Iron (Fe) Manganese (Mn) Reservoir Influent Site #1 Analyte Field Analyses									
Iron (Fe) Manganese (Mn) Reservoir Influent Site #1 Analyte Field Analyses	SM 2120BM	ND	3.0	15	Color Units	07/19/17	07/19/17	1729163	
Manganese (Mn) Reservoir Influent Site #1 Analyte Field Analyses									
Reservoir Influent Site #1 Analyte Field Analyses	EPA 200.7	ND	100	300	ug/L	07/31/17	07/31/17	1731040	
Analyte Field Analyses	EPA 200.7	ND	20	50	ug/L	07/31/17	07/31/17	1731040	
Field Analyses		17G1752-0	02 (Water)		Sample Dat	e: 07/19/17	7:55 S	Sampler: P	atrick McCue
	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Cl Res Total (Field)									
	Field	0		N/A	mg/L	07/19/17	07/19/17	1729142	
pH (Field)	Field	7.5		N/A	pH Units	07/19/17	07/19/17	1729142	
Temperature (Field)	Field	22.8		N/A	°C	07/19/17	07/19/17	1729142	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	07/19/17	07/20/17	1729147	
E. Coli	SM 9223	A		N/A	P/A	07/19/17	07/20/17	1729147	
Plate Count	SM9215B	190	1	500	CFU/ml	07/19/17	07/21/17	1730046	HT-08
Reservoir Effluent Site #5		17G1752-0	03 (Water)		Sample Dat	e: 07/19/17	7:45 S	Sampler: P	atrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.377		N/A	mg/L	07/19/17	07/19/17	1729142	
pH (Field)	Field	7.84		N/A	pH Units	07/19/17	07/19/17	1729142	
Temperature (Field)	Field	21.2		N/A	°C	07/19/17	07/19/17	1729142	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	07/19/17	07/19/17	1729163	
Odor Threshold	EPA 140.1-M	2	1	3	TON	07/19/17	07/19/17	1729163	
General Chemical Analyses									
Total Filterable Residue/TDS									



Lomita, City ofProject:Standard AnalysisWork Order:17G175224373 Walnut AvenueSub Project:CWPF 3rd week of July, 2017 Compliance Sampling Received:07/19/17 15:35Lomita CA, 91717Project Manager:Mark AndersenReported:08/02/17

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



July 28, 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: 17G1752

Lab Number:

1072102-01

Enclosed are results for sample(s) received 7/21/17 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 17G1752

	2 of 4
	I072102
10721	02-01

Emilia	
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 California EDT transfer those samples with Water Trax Upload Client: Turn Around Time [] 10 Days [] 5 Days Subcontract Comments:	PS codes provided [] Yes [V] No [] Yes [V] No
Analysis	Comments
Sample ID: Reservoir Effluent Site #5 / 17G1752-03	Sampled: 07/19/17 07:45 PS Code: Water WTX ID:
Methane (Air) ASTM D1946	

40ml Amber Vial (C)

Containers Supplied: 40ml Amber Vial (B)

Released By Date / Time Received By Date / Time Date / Time Received By Date / Time Date / Time

Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

17G1752

Date Received:

07/21/17

Matrix:

Water

Reporting Units: mg/L

Lab No.:	107210	2-01				
_	Reservoir	Effluent				
Client Sample I.D.:	Site #5/17	G1752-				
-	03					
Date/Time Sampled:	7/19/17	7:45				
Date/Time Analyzed:	7/24/17	10:29				
QC Batch No.:	1707240	GC8A1				
Analyst Initials:	AS	S				
Dilution Factor:	1.0)				
	Result	RL				
ANALYTE	mg/L	mg/L				
Methane	0.53	0.0010				
			2004/			

ND	= Not	Detected	(helow	RI)
NU	- 1101	Detecteu	(neiow	NL)

RL = Reporting Limit

Reviewed/Approved By: _

Mark Johnson

Operations Manager

Date

The cover letter is an integral part of this analytical report

QC Batch No.:

170724GC8A1

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:	7/24/	17 9:31	7/24/	17 8:56	7/24/	17 9:18		
Analyst Ini	tials:	A	AS		AS		AS		
Data	file:	24j	u1004	24	jul002	24	jul003		
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	108	70-130%	109	70-130%	1.0	<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.

1 3 Chain of Custody

とられられ

Client	City of Lomita	System Number	
Address	24373 Walnut Avenue		
	Lomita, CA 91717	19100/3	
Phone #	(310) 325-9830	Destination Laboratory	
Fax#	(310) 325-3627		l H
Project	Standard Analysis	Ma	ACT ard
Sub Project	CWPF 3rd week of July, 2017 Compliance	issolv Iron	Odd F/TC ness Vate
	Sampling	nese	C/H s (as
Comments	For TC/EC/BACT see weekly Distro CoC		Ca
Sampled by	Patrick McCue	8801	
Date Time	Sample Idenitification	Matrix Type Presery pH Tang.	3)
7-19-17 0740	O74つ Reservoir Influent Site #3	DW IW N/A 2.58 24.2° H.AC x x	Comments / P.S. Codes
7-19-170755	1-19-170755 Reservoir Inluent site # 1	3,	
7-19-170745	1074ら Reservoir Effluent Site #5	DW IW N/A 724 71.2 277	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
7-19-170745	-19-(フロンチラ Reservoir Effluent Site #5	HCL (101)	V V
	Ł.		
Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCI (3) HNO3 (5) H2SO4 (6) Na ₂ SO ₃ (7) Cold (8) Other	rvatives: (1) Na ₂ S ₂ O ₃ (2) HCI (3) HNO3 (4) NH4CI (5) H2SO4 (6) Na ₂ SO3 (7) Cold (8) Other		nd Water, A-Air Type- 1-Routine, 2-Repeat, 3-
Retinguished By (Sign)	v (Sign) Print Name / Commons	Replacement, 4-Special	W-Well D-Dist.
Patrick McCue		7-10-1-1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ened By (Sign) Print Name Company
Patrick 911	The things	(15) 2:35 (10)	Man Comment
Comment	JAK 50 JAK	Samples received:	t () Custody seals Temp () O O F OK
Shipped Via	Fed X Golden State	UPS Client Other	
			1 48 5 - 1 - 1/2 - 1



04 August 2017 Clinical Lab No.: 17G2238

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

Project Name: Standard Analysis

Sub Project: CWPF 4th week of July, 2017 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 07/26/17 . 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:17G223824373 Walnut AvenueSub Project:CWPF 4th week of July, 2017 Compliance Sampling Received:07/26/17 15:25Lomita CA, 91717Project Manager:Mark AndersenReported:08/04/17

Reservoir Influent Site #3		17G2238-	01 (Water)		Sample Da	te: 07/26/17	7:45	Sampler: I	Patrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	l Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	5.2		N/A	mg/L	07/26/17	07/26/17	1730135	
pH (Field)	Field	6.79		N/A	pH Units	07/26/17	07/26/17	1730135	
Temperature (Field)	Field	23.6		N/A	°C	07/26/17	07/26/17	1730135	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	07/26/17	07/26/17	1730149	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	07/31/17	07/31/17	1731040	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	07/31/17	07/31/17	1731040	
Reservoir Influent Site #1		17G2238-	02 (Water)		Sample Da	te: 07/26/17	7:58	Sampler: I	Patrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	l Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	0		N/A	mg/L	07/26/17	07/26/17	1730135	
pH (Field)	Field	6.69		N/A	pH Units	07/26/17	07/26/17	1730135	
Temperature (Field)	Field	23.8		N/A	°C	07/26/17	07/26/17	1730135	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	07/26/17	07/27/17	1730141	
E. Coli	SM 9223	A		N/A	P/A	07/26/17	07/27/17	1730141	
Plate Count	SM9215B	76	1	500	CFU/ml	07/26/17	07/28/17	1730187	HT-08
Reservoir Effluent Site #5		17G2238-	03 (Water)		Sample Da	te: 07/26/17	7:50	Sampler: I	Patrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	l Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.533		N/A	mg/L	07/26/17	07/26/17	1730135	
pH (Field)	Field	7.05		N/A	pH Units	07/26/17	07/26/17	1730135	
Temperature (Field)	Field	21.5		N/A	°C	07/26/17	07/26/17	1730135	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	07/26/17	07/26/17	1730149	
Odor Threshold	EPA 140.1-M	2	1	3	TON	07/26/17	07/26/17	1730149	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	540	5.0	1000	mg/L	07/27/17	07/31/17	1730148	



Lomita, City ofProject:Standard AnalysisWork Order:17G223824373 Walnut AvenueSub Project:CWPF 4th week of July, 2017 Compliance Sampling Received:07/26/17 15:25Lomita CA, 91717Project Manager:Mark AndersenReported:08/04/17

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



August 3, 2017



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: 17G2238

Lab Number:

1072708-01

Enclosed are results for sample(s) received 7/27/17 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.

Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

17G2238

Date Received:

07/27/17

Matrix:

Water

Reporting Units: mg/L

RSK175

Lab No.:	107270	8-01			
	Reservoir	Effluent			
Client Sample I.D.:	Site #5/17	G2238-			
	03	1			
Date/Time Sampled:	7/26/17	7:50			
Date/Time Analyzed:	8/1/17	11:33			
QC Batch No.:	1708010	GC8A1			
Analyst Initials:	AS	S			
Dilution Factor:	1.0)			
	Result	RL			
ANALYTE	mg/L	mg/L			
Methane	0.44	0.0010			

Deliver with the second	100.000	man or or two	1000	
ND =	= Not	Detected	(below	RL)

RL = Reporting Limit

Reviewed/Approved By:	Mall.
	Mark Johnson
	Operations Manager

8/3/17 Date

The cover letter is an integral part of this analytical report

QC Batch No.:

170801GC8A1

Matrix:

Water

Units:

mg/L

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

La	No.:	Metho	d Blank	I	LCS	L	CSD		
Date/Time A	nalyzed:	8/1/1	7 10:24	8/1/1	7 11:06	8/1/1	7 11:20		
Analyst In	itials:	A	AS		AS		AS		
Da	afile:	01A	ug002	012	Aug004	014	Aug005		
Dilution F	actor:	1	1.0		1.0		1.0		
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	109	70-130%	101	70-130%	7.1	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By:	MACH-		Date:	8/3/7
	Mark J. Johnson	/		•
	Operations Manager			

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

179333X

Client		City of Lowita	Ű	System Number	mber				Analyeie	ieje D	Podioctod	40			
Address	2	24373 Walnut Avenue			707	100				-		-			
		Lomita, CA 91717			137	1910073						To			
Phone #		(310) 325-9830			Destinatio	Destination Laboratory	ory			7		otal			
Fax#		(310) 325-3627			[X] Clinic	[X] Clinical Laboratory	ory			Γotal					
Project		Standard Analysis			RWQCB	RWQCB Compliance	je je								
Sub Broicet	CWPF 4th	CWPF 4th week of July, 2017 Compliance				yes				olo			dor		
ans riolect		Sampling			E	ELAP#			anes			/HP (as (
Comments	For TC/EC/B,	For TC/EC/BACT see weekly Distro CoC			7	000				lids	RSK	CaC			
Sampled by		Patrick McCue			-	000						(O3)			
Date Time		Sample Idenitification	Matrix	Type	Preserv	Hd	Temp.	Total Chlorine						Comments / P.S. Codes	
7-26-17 07	7-26-17 0745 Reservoir Influent Site #3	luent Site #3	DW	WI .	A/A	6.79	23.6°	5.2	×	×		\vdash			
7-26-17 07	$\gamma\gammaarnothing$ Reservoir Influent Site #1	luent Site #1	DW	1W	1	6.69	23.6°	Ø				×		Non- compliance	
7-26-17 07	C750 Reservoir Effluent Site #5	luent Site #5	MQ	1W	N/A	17.05	21.50	3533		×			×		
7-26-1707	C 750 Reservoir Effluent Site #5	luent Site #5	DW'	WI	2						×				
	8.														
												$\left \cdot \right $			
			Matrix	Matrix: DW.Dri	Main's	Tor IAGA IA	inking Water WW. Wasto Water CW. Sterm Water CW. County Water A Air	. CIA/ C40.					-		
(5) H2SO4 (6	(5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:	(8) Other:	Matti	Y. 04.0	IVIII AND	(e', vvv-v	asie wale. Re	rer, svv-storm vvater, Gv Repeat, 3-Replacement,	т имате эрlасет	ent, 4-5	Special	W-We	Water, A-All W-Well D- Dist.	lype- 1-kouune, Jist.	
Relinquish	Relinquished By (Sign)	Print Name / Company				Date / Time	Fime		6	 			Ī	Print Name / Company	
Patrick McCue		City of Lomita		7-26	17/	.); (\ \		1	K	D	=	5	Level CLINS	
Totach m	W.C.B				-	1.1	۷,		ر ار	NOW	J	₹	MACH	MK 3.H CLSR	
Comments	S S	J.LMCGRO/CUSB 7.26	5G	7.76		amples received:	ceived: (An ice		Antact	; t (Cus	tody :	Custody seals Temp 109 ()F	21
Shipped Via)	Fed X Golden State UPS	I UPS	Client		Other					Page	Page_1_of			

APPENDIX B

METHANE MONITORING LOG



CITY OF LOMITA PUBLIC WORKS DEPARTMENT

CYPRESS WATER PRODUCTION FACILITY HANDHELD METHANE LOG READINGS

		JULY 2	017	
DATE	DAY	METHAN	E HANDHELD	COMMENTS
7/1/2017	SA	CH4- 0%	Oxy- 20.2%	
7/2/2017	SU	CH4- 0%	Oxy- 20.3%	
7/3/2017	М	CH4- 0%	Oxy- 20.3%	
7/4/2017	Т	CH4- 0%	Oxy- 20.2%	
7/5/2017	W	CH4- 0%	Oxy- 20.2%	
7/6/2017	TH	CH4- 0%	Oxy- 19.9%	
7/7/2017	F	CH4- 0%	Oxy- 20.3%	
7/8/2017	SA	CH4- 0%	Oxy- 20.4%	
7/9/2017	SU	CH4- 0%	Oxy- 19.9%	
7/10/2017	M	CH4- 0%	Oxy- 20.5%	
7/11/2017	Т	CH4- 0%	Oxy- 20.1%	
7/12/2017	W	CH4- 0%	Oxy- 20.4%	A CONTRACTOR OF THE PARTY OF TH
7/13/2017	TH	CH4- 0%	Oxy- 20.3%	
7/14/2017	F	CH4- 0%	Oxy- 20.1%	
7/15/2017	SA	CH4- 0%	Oxy- 19.9%	
7/16/2017	SU	CH4- 0%	Oxy- 20.1%	
7/17/2017	M	CH4- 0%	Oxy- 20.2%	
7/18/2017	Т	CH4- 0%	Oxy- 20.1%	
7/19/2017	W	CH4- 0%	Oxy- 20.2%	
7/20/2017	TH	CH4- 0%	Oxy- 20.2%	
7/21/2017	F	CH4- 0%	Oxy- 20.2%	
7/22/2017	SA	CH4- 0%	Oxy- 19.9%	
7/23/2017	SU	CH4- 0%	Oxy- 19.9%	
7/24/2017	М	CH4- 0%	Oxy- 20.2%	
7/25/2017	Т	CH4- 0%	Oxy- 20.1%	
7/26/2017	W	CH4- 0%	Oxy- 20.4%	
7/27/2017	TH	CH4- 0%	Oxy- 20.2%	
7/28/2017	F	CH4- 0%	Оху- 20.3%	
7/29/2017	SA	CH4- 0%	Oxy- 20.4%	
7/30/2017	SU	CH4- 0%	Oxy- 19.9%	
7/31/2017	М	CH4- 0%	Oxy- 20.2%	

NID A	lon	Detect
יו -טוו	1101	Detett

CH4- Methane

Oxy- Oxygen

Day Off/Holiday- Red

APPENDIX C

NITRIFICATION MONITORING DATA SUMMARY

MONTHLY NITRIFICATION MONITORING SUMMARY REPORT CITY OF LOMITA, System No. 1910073 --- Month, Year: July 2017

#	Code	Sample ID	Location	Sample Date	Temp	рН	Total Chlorine	Free Chlorine	Total Ammonia	Free Ammonia	Nitrite	Nitrate	Coliform ²	НРС	Zone	Comments
U	nits/O	thers $ ightarrow$		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	7/5/2017	22.4	7.99	3.10	0.14	0.57	0.07	0.008	ND	Α	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	7/5/2017	21.2	7.88	3.00	0.11	0.62	0.02	0.008	ND	Α	ND	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	7/5/2017	21.0	7.94	3.30	0.10	0.64	0.06	0.004	ND	A	ND	1	Well/MWD Blend
4	D	Α	2052 Dawn St	7/5/2017	21.2	7.91	1.48	0.23	0.34	0.14	0.075	0.5	А	1	1	Well/MWD Blend
5	D		Reservoir SP5	7/5/2017	21.0	7.77	3.51	0.09	0.70	0.00	0.014	ND	А	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th Pl	7/5/2017	19.9	8.46	2.40	0.18	0.47	0.09	0.005	0.53	Α	ND	2	MWD Only
7	D	DE 01203 M 1000 TO 1000 TO	26314 S Monte Vista Ave	7/5/2017	19.3	8.42	2.40	0.04	0.52	0.04	0.002	0.60	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	7/5/2017	19.5	8.39	2.50	0.07	0.42	0.02	0.004	0.58	А	ND	2	MWD Only
		642.002	4040 W 252 - J Ct	7/12/2017	22.0	7.84	3.20	0.17	0.55	0.00	0.016	ND	A I	ND	1	Well/MWD Blend
1	D	S13-003	1948 W 252nd St	7/12/2017	22.8	7.84	3.20	0.17	0.50	0.00	0.016	ND ND	A	ND ND	1	Well/MWD Blend
2	D D	S13-004 S13-008	24632 S Moon Ave 25417 Pennsylvania Ave	7/12/2017 7/12/2017	23.2	7.85	3.30	0.10	0.58	0.00	0.013	ND ND	A	ND	1	Well/MWD Blend
4		A A	2052 Dawn St	7/12/2017	23.1	7.83	1.54	0.12	0.29	0.11	0.013	0.47	A	11	1	Well/MWD Blend
5	_	A	Reservoir SP5	7/12/2017	18.6	8.30	3.45	0.12	0.60	0.00	0.014	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th Pl	7/12/2017	21.9	8.34	2.50	0.09	0.49	0.01	0.010	0.62	A	ND	2	MWD Only
7	_		26314 S Monte Vista Ave	7/12/2017	20.1	8.28	2.40	0.14	0.47	0.00	0.009	0.61	A	ND	3	MWD Only
8	34500		2500 PCH	7/12/2017	21.6	8.33	2.50	0.04	0.47	0.02	0.009	0.62	Α	ND	2	MWD Only
Ľ		020 000		1 , , , , , , ,												
1	D	S13-003	1948 W 252nd St	7/19/2017	23.1	7.87	3.00	0.18	0.51	0.06	0.015	ND	A	ND	1	Well/MWD Blend
2			24632 S Moon Ave	7/19/2017	21.8	7.89	3.00	0.12	0.58	0.00	0.017	ND	А	ND	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	7/19/2017	24.9	7.98	3.20	0.14	0.29	0.00	0.017	ND	А	ND	1	Well/MWD Blend
4	D	Α	2052 Dawn St	7/19/2017	23.1	7.73	1.45	0.08	0.30	0.09	0.079	0.50	Α	ND	1	Well/MWD Blend
5	D		Reservoir SP5	7/19/2017	21.2	7.84	3.37	. 0.10	0.62	0.06	0.014	ND	Α	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th Pl	7/19/2017	20.7	8.54	2.60	0.08	0.47	0.00	0.010	0.62	Α	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	7/19/2017	19.3	8.58	2.40	0.10	0.48	0.00	0.010	0.62	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	7/19/2017	23.0	8.40	2.50	0.13	0.54	0.04	0.009	0.62	A	ND	2	MWD Only
_																
1		S13-003	1948 W 252nd St	7/26/2017	22.8	7.94	3.20	0.17	0.43	0.15	0.016	ND	A	ND	1	Well/MWD Blend
2		S13-004	24632 S Moon Ave	7/26/2017	23.5	7.79	3.00	0.08	0.62	0.01	0.016	ND	Α	ND	1	Well/MWD Blend
3		S13-008	25417 Pennsylvania Ave	7/26/2017	24.9	7.84	3.40	0.14	0.58	0.00	0.016	ND	A	ND	1	Well/MWD Blend
4		Α	2052 Dawn St	7/26/2017	24.1	7.89	1.28	0.06	0.27	0.08	0.112	0.43	A	ND	1	Well/MWD Blend
5			Reservoir SP5	7/26/2017	21.5	7.05	3.50	0.06	0.65	0.00	0.009	ND 0.57	A	ND ND	2	Well/MWD Blend MWD Only
6		S13-001	1912 W 259th Pl	7/26/2017	22.2	8.54	2.50	0.10	0.49	0.00	0.009	0.57	A	ND ND	3	MWD Only
7	_	S13-002	26314 S Monte Vista Ave	7/26/2017	20.8 22.6	8.46 8.46	2.60	0.04	0.47	0.00	0.008	0.58	A	ND ND	2	MWD Only
8	D	S13-005	2500 PCH	7/26/2017	22.6	8.40	2.50	0.04	0.47	0.00	0.006	1 0.57	1 ^	ואט	1 4	INIVID OITIY
1		C12 002	1948 W 252nd St				T	T	enacial manner is an	plusing a figure of	el el applicación de	Ĭ .	I		1	Well/MWD Blend
2		S13-003 S13-004	24632 S Moon Ave								each war feet				1	Well/MWD Blend
3		S13-004 S13-008	25417 Pennsylvania Ave								Parties and the				1	Well/MWD Blend
4		A A	2052 Dawn St	1							E Tymbron				1	Well/MWD Blend
5		A	Reservoir												1	Well/MWD Blend
6		S13-001	1912 W 259th Pl							Louis and					2	MWD Only
7		S13-001	26314 S Monte Vista Ave						Aug Mich	San Herrico	HAR BOOK				3	MWD Only
8		S13-002	2500 PCH						to street out	D-76V2 375 46					2	MWD Only

¹Notes: 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 the upward trend of Nitrite on Dawn St in accordance with the Nitrification Monitoring Plan.