# CITY OF LOMITA



# Cypress Water Production Facility Monthly Status Report

October 2018

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#### **CITY COUNCIL**

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



#### **ADMINISTRATION**

RYAN SMOOT
CITY MANAGER

November 13, 2018

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

<u>Subject: System No. 1910073 - Monthly Report for the Cypress Water Production Facility (CWPF) for the period of October 1 through October 31, 2018.</u>

Dear Mr. Ginzburg,

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

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

Sincerely,

Mark Andersen

Public Works Superintendent

#### 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 October 2018 maintaining water levels inside the reservoir ranging from 7 feet to 10 feet. The average flow from Well No. 5 was 417 gpm and 575 gpm from MWD. The blend ratio for month was 41% Well water and 59% MWD water. See Table 1 below for production totals for the month of October 2018.

**Table 1. Monthly Production Totals.** 

			for October 2018
Well No. 5	40.67	ac-ft	13,251,366 (gallons)
MWD	59/10	acift	/19,257,000 (gallons)
Combined Total	99.77	ac-ft	32,508,366 (gallons)
Daily	3.99	ac-ft/day	1,300,335 (gallons/day)

#### C. OPERATIONAL INTERRUPTIONS

The CWPF was offline for approximately six days during the month of October to perform routine and preventive maintenance on various pieces of equipment. During this time, Zone 1 was being supplied only by MWD water. The CWPF was put back online on October 9, 2018. 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 level. Iron for raw water was below the MCL level and Manganese was above the MCL level for the month. 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 596 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 750 mg/L and 360 mg/L, respectively.

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

The sampling results for the month indicate the hardness levels of the blended water to be on average 250 mg/L. This hardness level is <u>within</u> 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 0.28 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 October 2018 in Appendix B.

#### E3-5 ODOR

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

#### **E3-6 TOTAL PHOSPHATE AND ORTHOPHOPHATE**

See Table 5 below for a summary of the results for the monitoring of Orthophosphate and Total Phosphate both in the distribution system and CWPF.

#### **E4. NITRIFICATION MONITORING**

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

#### F. TABLES

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

		SP1, V	Vell Rav	Water	Discha	arge		Pres	Combi sure F	Iter	SP3, /		nloramin eservoii		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
10/2/2018											ND	300	ND	50	5	15
10/9/2018	200	300	150	50	10	15	Α	ND	ND	500	ND	300	ND	50	5	15
10/16/2018											ND	300	ND	50	5	15
10/23/2018											ND	300	ND	50	5	15
10/30/2018											ND	300	ND	50	5	15

Notes:

Monthly- Orange; Weekly- Yellow

A – Absent

ND - Non Detect

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

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

Date,	SP2		SP3			SP4			SP5	
week of	Free CI	Free CI	Total CI	Total NH <sub>3</sub>	Free CI	Total CI	Total NH <sub>3</sub>	Free CI	Total CI	Total NH <sub>3</sub>
10/22018	16	-	-	-	-	-	-	0.07	3.77	0.87
10/9/2018	8.91	1.01	8.70	0.96	0.78	5.18	0.77	0.05	3.55	0.73
10/16/2018	8.98	0.96	9.76	1.02	0.68	5.37	0.84	0.06	3.70	0.77
10/23/2018	8.54	1.05	9.68	1.01	0.73	5.11	0.80	0.07	3.52	0.74
10/30/2018	8.89	1.00	9.40	1.10	0.62	4.49	0.86	0.05	3.39	0.72

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

		TD	S, mg/L		T.O.	N.		Hardn	ess, mç	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
10/2/2018			600	500-750	2	3						0.31
10/9/2018	750	360	580	500-750	2	3	370	160	250	180-250	2.0	0.18
10/16/2018			620	500-750	2	3						0.32
10/23/2018			650	500-750	2	3						0.30
10/30/2018			530	500-750	2	3						0.29
Average			596	500-750	2	3	Topic St.					0.28

Monthly- Orange; Weekly- Yellow

ppm – parts per million mg/L – milligram per liter

T.O.N. - Threshold Odor Number

TDS - Total Dissolved Solids Hardness - As total CaCO3

Methane (Water) - Methane dissolved in water

Table 5. Monitoring Requirements and Frequencies for Total Phosphate and Orthophosphate.

Sample Location	Date, week of	Total Phosphate, mg/L	Orthophosphate, mg/L
1948 W 252 <sup>nd</sup> St		0.11	0.16
24632 S Moon Ave		0.13	0.19
2450 W 247 <sup>th</sup> St	10/9/18	0.062	0.075
2052 Dawn St		0.043	0.098
CWPF SP5		0.39	

Notes:

Monthly- <u>Orange;</u> mg/L – milligram per liter

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

0 11 11	TE	White the State of the Commence with the	Approximate the second second second	i, Oystein	Arrest of the latest of the la	The state of the s		
Sample Locations	Frequency	MCL/	10/2/18	10/9/18	10/16/18	10/23/18	10/30/18	Comments
and Parameters		Goal	1stWk	2 <sup>nd</sup> Wk	3rdWk	4 <sup>th</sup> Wk	5 <sup>th</sup> Wk	and/or
			N/I	-				Other Info.
			or Mo.					1997-1997 (1997-1997) (1997-1997-1997)
			Result	1				
			(date)					
SP1 Also called		THE RESERVE OF THE PARTY OF THE	or Site#1.					
TDS, ppm	Monthly	See SP5	750	Operations	Data/Inform	nation:		*Chlorine injected after
Hardness	Monthly	See SP5	10/9/18 <b>370</b>	CWPF opera	ition days			SP1, before entering the greensand filter.
Tidiumoss	Wienany		10/9/18					and groomband mitor.
CH4, ppm	Monthly	See SP5	2.0	On Well 5: 1 - 40.67 AF	Daily average	flow – 417 gpm	; total prod.	
luna wah	Manthle	See SP3	10/9/18		ell 5/MWD da	ata: Average V	Vell 5: MWD	
Iron, ppb	Monthly	366 3F3	220 10/9/18	blend Ratio -	41% WELL:	59% MWD; tota	al prod	
Manganese, ppb	Monthly	See SP3	150	99.77 AF				
		0 000	10/9/18	Chlorine Do	sage: N/A*			
Color, units	Monthly	See SP3	10					
Total Coliform, P or A	Monthly	А	10/9/18 <b>A</b>					
		950M3594	10/9/18					
SP2 Also called	Filter Efflu	ent or Si	te#3.					
Total Coliform, P or A	Monthly	А	Α					*Ammonia added after
HPC,MPN/100 ml	Monthly	500	ND	Ammonia D	osage: N/A*			filter effluent
Free Cl Res, ppm	Continuous			ge: 8.54 - 8				
SP3 Also called	the Site Af	ter Chlor	ramination	n & Before	MWD BI	ending or	Site#4.	
Iron, ppb	Weekly	ND	ND	ND	ND	ND	ND	
Manganese, ppb	Weekly	50	ND	ND	ND	ND	ND	
Color	Weekly	15	5	5	5	5	5	
Free and Total CI Res,	Continuous			; Range: 0.9				
ppm				8; Range: 8				
CD4 Also selled		Ammonia	: Average: 1	.02; Range:	0.96 – 1.10			
SP4 Also called	Reservoir	influent	or the Site	Well 5/M	ND Water	Blend Po	int/Phosp	hate Injection.
Phosphate Injection	Continuous	The second secon	e Dosage: 0	THE RESERVE TO SHARE THE PARTY OF THE PARTY				
Free and Total CI Res, ppm	Continuous			2; Range: 0. 7; Range: 4.				CI/NH3 Ratio:
ррш				.81; Range: 4.				6.29
SP5 Also called	Reservoir					to Zone 1	of the die	tribution system
TDS, ppm	Weekly	SI Goal:			narges m	LO ZONE I	of the dis	iribution system.
100, ppiii	VVCCRIY	500-750ppm	600	580	620	650	530	
Hardness	Monthly	SI Goal:		250				
CH4, ppm	Weekly	180-250ppm Goal: from						0/ OHA D
отт, ррп	VVCCKIY	PA	0.31	0.18	0.32	0.30	0.29	% CH4 Removal: 86.0%
Odor, units	Monthly	1	2	2	2	2	2	00.070
Free and Total Cl Res,	Continuous	Free CI: /	Average: 0.0	6; Range: 0.0			-	CI/NH3 Ratio:
ppm				9; Range: 3.3				4.73
11 - 1 - 2 - 2 - 2			: Average: 0.	. <mark>76</mark> ; Range: 0	.72 - 0.87			Will server
Headspace of the C		Arrange and the same of						
¹CH4 ppmv; using	Daily (from log)	Goal -		age: 0.38%				
Portable Device	(from log)	LEL		ge: 0% - 4%				
SP 6 MWD Source		CWPF.	Also calle		of the dist	ribution s	ystem or	Site #6.
TDS, ppm	Monthly			360				
Hardness	Monthly			160				
Notes: 1Self-Imposed (SI) G	oals: TDS Goa	l-500-750 pp	m; Hardness	as CaCO3 Goa	I-180-250 ppr	n.		L.
***This Report is du	ue to DDW	by the 10	Oth of the f	following i	nonth.			
011 11 10			AND DESCRIPTION OF THE PERSON					

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

#### **APPENDIX A**

LABORATORY RESULTS



12 October 2018 Clinical Lab No.: 18J0186

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

Project Name: Standard Analysis

Sub Project: CWPF 1st Week of October, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 10/02/18 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

Stu Styles

Client Services Manager

tistes



Lomita, City ofProjectStandard AnalysisWork Order:18J018624373 Walnut AvenueSub Project:CWPF 1st Week of October, 2018 Compliance SampliReceived:10/02/18 16:22Lomita CA, 91717Project Manager:Mark AndersenReported:10/12/18

Reservoir Influent Site #3		18J0186-0	1 (Water)		Sample Da	te: 10/02/1	8 9:00 <b>Sa</b>	mpler: P.1	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.7		N/A	mg/L	10/02/18	10/02/18	1840076	
pH (Field)	Field	7.47		N/A	pH Units	10/02/18	10/02/18	1840076	
Temperature (Field)	Field	23.7		N/A	°C	10/02/18	10/02/18	1840076	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	10/02/18	10/02/18	1840093	
<u>Metals</u>									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	10/04/18	10/05/18	1840123	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	10/04/18	10/05/18	1840123	
Reservoir Effluent Site #5		18J0186-0	02 (Water)		Sample Da	te: 10/02/1	8 9:20 <b>Sa</b>	mpler: P.	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.56		N/A	mg/L	10/02/18	10/02/18	1840076	
pH (Field)	Field	7.79		N/A	pH Units	10/02/18	10/02/18	1840076	
Temperature (Field)	Field	24		N/A	°C	10/02/18	10/02/18	1840076	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	10/02/18	10/02/18	1840093	
Odor Threshold	EPA 140.1-M	2	1	3	TON	10/02/18	10/02/18	1840093	
General Chemical Analyses									
TALEN LLD 'L /TDC		600			_	10/02/10	10/04/10	1840061	
Total Filterable Residue/TDS	SM 2540C	000	5.0	1000	mg/L	10/02/18	10/04/18	1040001	



October 10, 2018

EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

TX Cert T104704450-14-6

EPA Methods TO14A, TO15

UT Cert CA0133332015-3

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

# EPA Methods TO3, TO14A, TO15, RSK-175

#### LABORATORY TEST RESULTS

Project Reference: 18J0186

Lab Number:

J100301-01

Enclosed are results for sample(s) received 10/03/18 by Air Technology Laboratories. Samples were received intact and chilled to 5° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

#### Report Narrative:

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

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

Sincerely,

Mark Johnson

**Operations Manager** 

MJohnson@AirTechLabs.com

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

#### SUBCONTRACT ORDER

J100301 J100301

# Clinical Laboratory of San Bernardino 18J0186

SENDING LABORATORY:	RECEIVING LABORATORY:	
Clinical Laboratory of San Bernardino 21881 Barton Road	Air Technology Labs 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 [ ] glaubig@clinical-lab.com [ ] styles@	1 Styles Oclinical-lab.com [ ] nelson@clinical-lab.com	
California EDT transfer those sample Water Trax Upload Client:	les with PS codes provided [ ] Yes [ ] No	
Turn Around Time [ ] 10 Days [ ] Subcontract Comments:	5 Days [ ] Other Days	
Analysis	Comments	
Sample ID: Reservoir Effluent Site #5 / 18J01		
6	Water WTX ID:	
Methane RSK175	Report in mg/L	8
Containers Supplied:		
40ml Amber Vial (B)	40ml Amber Vial (C)	

5°C

Client:

Clinical Laboratory

Attn:

Stu Styles

**Project Name:** 

NA

Project No.:

18J0186

Date Received:

10/03/18

Matrix:

Water

Reporting Units: mg/L

#### **RSK175**

Lab No.:	J10030	)1-01			
Client Sample I.D.:	Reservoir Site #5/18.				
Date/Time Sampled:	10/2/18	9:20			
Date/Time Analyzed:	10/5/18	9:35			
QC Batch No.:	1810040	GC8A2			
Analyst Initials:	AS	S			
Dilution Factor:	1.0	)			
ANALYTE	Result mg/L	RL mg/L			
Methane	0.31	0.0010			

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Wark Johnson

**Operations Manager** 

Date (0/10/12

The cover letter is an integral part of this analytical report

#### LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 181004GC8A2

Matrix: Air Reporting Units: mg/L

#### RSK175 LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD	BLANK		L	CS	LC	CSD				
Date/Time Analyzed:	10/4/18 1	5:17		10/4/1	8 14:31	10/4/1	8 14:44				
Analyst Initials:	AS			A	S	A	\S				
Dilution Factor:	1.0			1	.0	1	.0				
ANALYTE	Result mg/L	RL mg/L	SPIKE AMT. mg/L	Result mg/L	% Rec.	Result mg/L	% Rec.	RPD	Low %Rec	High %Rec	Max. RPD
Methane	ND	0.0010	0.65	0.638	97.5	0.697	107	8.9	70	130	30.0

ND= Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: \_\_\_\_\_ Mark Johnson

**Operations Manager** 

Date W/s /s

The cover letter is an integral part of this analytical report

	et	Destination Laboratory	1210101013	Dhone #
	М	5 2001 61	Lomita, CA 91717	
		2200101	24373 Walnut Avenue	Address
	Analysis Requested	System Number	City of Lomita	Client
1870186				

Client			City of Lomita	SVS	System Number	mber				Analy	Analysis Requested	eane	Sted			
Address		74	24373 Walnut Avenue			2	0073					-				
			Lomita, CA 91717			<u> </u>	1910073				······································	M				
Phone #			(310)903-2243		7	estinatio.	Destination Laboratory	ıry				leth				
Fax#						[X] Clinics	[X] Clinical Laboratory	ئې			Tota	ane				
Project			Standard Analysis			RWQCB (	RWQCB Compliance	€.					O			
Sub Project		CWPF Ist we	CWPF 1st week of October, 2018 Compliance				yes			langan	olor olved :	iter)	dor			
Commonte			Sampung				ELAP #				Solids	RSI				
Sampled by		ror I C/EC/BA	FOR ICACUBACI See Weekly DISITO COL			<del>-</del>	1088					(175)				
Date	Time		Sample Idenitification	Matrix	Type	Presen	Hd	Temp.	Colorine	т		<del></del>			Comments / P.S. Codes	. Codes
10/2/2018	2900	09€0 Reservoir Influent Site #3	sent Site #3	DW	IW.	N/A	7.47	23.73	4	Х	X					
10/2/2018	2920	6 9 20 Reservoir Effluent Site #5	Jent Site #5	Ma	MΙ	N/A	7.79	J2H2	358		X		×			
10/2/2018	3920	0920 Reservoir Effluent Site #5	Jent Site #5	WG	130	2						×				
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				- Indeption	M. Deinki	and Maken	Hadely, DM Dinking Make MM Mand Make CM Cham Make DM County Make A At-	2 14/24/2	W. Cho.	1		7	14/2407		The court	Section 2 December
Freservatives	(1) Na <sub>2</sub>	Freservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO3 (4) NH4CI (5) H2SO4 (6) Na <sub>2</sub> SO <sub>3</sub> (7) Cold (8) Other:	INO3 (4) NH4C!	maux. t	A1117-44	ny water,	W F F - W 4 3 L	e water, c	Repl	acemer	7, 4-St	ecial .	W-Well	Replacement, 4-Special W-Well D-Dist.	s. Service of the ser	ype- i-nounile, k-nepeat,
Reling	uished	Relinquished By (Sign)	Print Name / Company				Date / Time	ïme			(	-		<del></del>	Print Name / Company	ompany
Thing to	Me		Patrick MY 14/ City of Lomita	1	10/2/2018	/ 8	; n:	22			7	*		Y	18/0 X 1	
3											C					
Comments:	::					S	samples r	eceived:	moX	ice 4	3	fact	<u> </u>	Custody	Samples received: Mon ice ( ) Intact ( ) Custody seals Temp 7. ( ) F	F XC
Shipped Via			Fed X     Golden State	Sdn	Client	1	Other						Page 1 of 1	1 fo		
						1					***************************************	-				

"Your Water and Wastewater Analysis Solution"



24 October 2018 Clinical Lab No.: 18J0898

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

Project Name: Standard Analysis

Sub Project: CWPF Monthly Compliance Samples, 2nd Wk of Oct

Enclosed are the results of the analyses for samples received at the laboratory on 10/09/18 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

Stu Styles

Client Services Manager

tistes



Lomita, City ofProject:Standard AnalysisWork Order:18J089824373 Walnut AvenueSub Project:CWPF Monthly Compliance Samples, 2nd Wk of Oct Received:10/09/18 15:45

Lomita CA, 91717 Project Manager: Mark Andersen Reported: 10/24/18

Raw Water Site #1		18J0898-0	1 (Water)		Sample Da	te: 10/09/18	8 11:40 <b>S</b> a	ampler: Pa	atrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	0		N/A	mg/L	10/09/18	10/09/18	1841121	
pH (Field)	Field	7.4		N/A	pH Units	10/09/18	10/09/18	1841121	
Temperature (Field)	Field	23.5		N/A	°C	10/09/18	10/09/18	1841121	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	10/09/18	10/10/18	1841126	
E. Coli	SM 9223	A		N/A	P/A	10/09/18	10/10/18	1841126	
Plate Count	SM9215B	65	1	500	CFU/ml	10/09/18	10/11/18	1841171	
General Physical Analyses									
Apparent Color	SM 2120BM	10.0	3.0	15	Color Units	10/09/18	10/09/18	1841132	
General Chemical Analyses									
Hardness, Total (as CaCO3)	Calculated	370	6.6	N/A	mg/L	10/18/18	10/18/18	[CALC]	
Total Filterable Residue/TDS	SM 2540C	750	5.0	1000	mg/L	10/10/18	10/11/18	1841044	
<u>Metals</u>									
Calcium (Ca)	EPA 200.7	99	1.0	N/A	mg/L	10/18/18	10/18/18	1842103	
Iron (Fe)	EPA 200.7	220	100	300	ug/L	10/19/18	10/19/18	1842157	
Magnesium (Mg)	EPA 200.7	30	1.0	N/A	mg/L	10/18/18	10/18/18	1842103	
Manganese (Mn)	EPA 200.7	150	20	50	ug/L	10/19/18	10/19/18	1842157	
Filter Effluent (Free Chlorine) Site #2		18J0898-0	2 (Water)		Sample Da	te: 10/09/18	8 11:55 <b>S</b> a	ampler: Pa	atrick McCue
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	10.6		N/A	mg/L	10/09/18	10/09/18	1841121	
pH (Field)	Field	7.46		N/A	pH Units	10/09/18	10/09/18	1841121	
Temperature (Field)	Field	23.2		N/A	°C	10/09/18	10/09/18	1841121	
Microbiology Analyses									
Total Coliform	SM 9223	A		N/A	P/A	10/09/18	10/10/18	1841126	
E. Coli	SM 9223	A		N/A	P/A	10/09/18	10/10/18	1841126	
Plate Count	SM9215B	ND	1	500	CFU/ml	10/09/18	10/11/18	1841171	

EPA 200.7

EPA 200.7

37

15

Metals

Calcium (Ca)

Magnesium (Mg)



Lomita, City ofProject:Standard AnalysisWork Order:18J089824373 Walnut AvenueSub Project:CWPF Monthly Compliance Samples, 2nd Wk of Oct Received:10/09/18 15:45Lomita CA, 91717Project Manager:Mark AndersenReported:10/24/18

18J0898-03 (Water) 10/09/18 12:00 Patrick McCue Filter Effluent (Total Chlorine) Site #3 **Sample Date:** Sampler: Analyte Method Result MCL Units Prepared Analyzed Batch Qualifier Rep. Limit Field Analyses Field 10/09/18 10/09/18 1841121 9.8 Cl Res Total (Field) N/A mg/LpH (Field) Field 7.6 N/A pH Units 10/09/18 10/09/18 1841121 Field 23.2 10/09/18 10/09/18 1841121 Temperature (Field) °C N/A **General Physical Analyses** SM 2120BM 5.0 10/09/18 10/09/18 1841132 **Apparent Color** 3.0 15 Color Units Metals EPA 200.7 ND 10/19/18 10/19/18 1842157 Iron (Fe) 100 300 ug/L EPA 200.7 ND 10/19/18 10/19/18 1842157 Manganese (Mn) 20 50 ug/L **Zone #2 Site #6** 18J0898-04 (Water) **Sample Date:** 10/09/18 12:05 Sampler: Patrick McCue Analyte Method Result Prepared Analyzed Batch Qualifier Rep. Limit MCL Units Field Analyses Cl Res Total (Field) Field 2.15 10/09/18 10/09/18 1841121 N/A mg/LpH (Field) Field 10/09/18 10/09/18 1841121 8.3 N/A pH Units Field 10/09/18 10/09/18 1841121 Temperature (Field) 22,2 N/A °C **General Chemical Analyses** Hardness, Total (as CaCO3) Calculated 160 10/15/18 10/16/18 [CALC] 6.6 N/A mg/L SM 2540C 10/11/18 1841044 **Total Filterable Residue/TDS** 360 5.0 1000 mg/L 10/10/18

1.0

1.0

N/A

N/A

mg/L

mg/L

10/15/18

10/15/18

10/16/18

10/16/18

1842026

1842026



Lomita, City ofProject:Standard AnalysisWork Order:18J089824373 Walnut AvenueSub Project:CWPF Monthly Compliance Samples, 2nd Wk of Oct Received:10/09/18 15:45

Lomita CA, 91717 Project Manager: Mark Andersen Reported: 10/24/18

	18J0898-0	5 (Water)		Sample Da	ite: 10/09/1	8 12:10 Sa	mpler: Pa	trick McCue
Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field	3.44		N/A	mg/L	10/09/18	10/09/18	1841121	
Field	7.86		N/A	pH Units	10/09/18	10/09/18	1841121	
Field	22.8		N/A	°C	10/09/18	10/09/18	1841121	
EPA 140.1-M	2	1	3	TON	10/09/18	10/09/18	1841132	
Calculated	250	6.6	N/A	mg/L	10/15/18	10/16/18	[CALC]	
SM 2540C	580	5.0	1000	mg/L	10/10/18	10/11/18	1841044	
EPA 200.7	64	1.0	N/A	mg/L	10/15/18	10/16/18	1842026	
EPA 200.7	22	1.0	N/A	mg/L	10/15/18	10/16/18	1842026	
	Field Field Field Field EPA 140.1-M Calculated SM 2540C EPA 200.7	Method         Result           Field         3.44           Field         7.86           Field         22.8           EPA 140.1-M         2           Calculated         250           SM 2540C         580           EPA 200.7         64	Field 3.44 Field 7.86 Field 22.8  EPA 140.1-M 2 1  Calculated 250 6.6 SM 2540C 580 5.0  EPA 200.7 64 1.0	Method         Result         Rep. Limit         MCL           Field         3.44         N/A           Field         7.86         N/A           Field         22.8         N/A           EPA 140.1-M         2         1         3           Calculated         250         6.6         N/A           SM 2540C         580         5.0         1000           EPA 200.7         64         1.0         N/A	Method         Result         Rep. Limit         MCL         Units           Field         3.44         N/A         mg/L           Field         7.86         N/A         pH Units           Field         22.8         N/A         °C           EPA 140.1-M         2         1         3         TON           Calculated         250         6.6         N/A         mg/L           SM 2540C         580         5.0         1000         mg/L           EPA 200.7         64         1.0         N/A         mg/L	Method         Result         Rep. Limit         MCL         Units         Prepared           Field         3.44         N/A         mg/L         10/09/18           Field         7.86         N/A         pH Units         10/09/18           Field         22.8         N/A         °C         10/09/18           EPA 140.1-M         2         1         3         TON         10/09/18           Calculated         250         6.6         N/A         mg/L         10/15/18           SM 2540C         580         5.0         1000         mg/L         10/10/18           EPA 200.7         64         1.0         N/A         mg/L         10/15/18	Method         Result         Rep. Limit         MCL         Units         Prepared         Analyzed           Field         3.44         N/A         mg/L         10/09/18         10/09/18           Field         7.86         N/A         pH Units         10/09/18         10/09/18           Field         22.8         N/A         °C         10/09/18         10/09/18           EPA 140.1-M         2         1         3         TON         10/09/18         10/09/18           Calculated         250         6.6         N/A         mg/L         10/15/18         10/16/18           SM 2540C         580         5.0         1000         mg/L         10/10/18         10/11/18           EPA 200.7         64         1.0         N/A         mg/L         10/15/18         10/16/18	Method         Result         Rep. Limit         MCL         Units         Prepared         Analyzed         Batch           Field         3.44         N/A         mg/L         10/09/18         10/09/18         1841121           Field         7.86         N/A         pH Units         10/09/18         10/09/18         1841121           Field         22.8         N/A         °C         10/09/18         10/09/18         1841121           EPA 140.1-M         2         1         3         TON         10/09/18         10/09/18         1841132           Calculated         250         6.6         N/A         mg/L         10/15/18         10/16/18         [CALC]           SM 2540C         580         5.0         1000         mg/L         10/10/18         10/11/18         1841044           EPA 200.7         64         1.0         N/A         mg/L         10/15/18         10/16/18         1842026



October 18, 2018

EPA Methods TO3, TO14A, TO15, 25C/3C, RSK-175

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: 18J0898

Lab Number:

J101105-01/02

Enclosed are results for sample(s) received 10/11/18 by Air Technology Laboratories. Samples were received intact and chilled to 5° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

#### Report Narrative:

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

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

Sincerely,

Mark Johnson

**Operations Manager** 

Mall-f

MJohnson@AirTechLabs.com

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

#### SUBCONTRACT ORDER

2 of 4 J101105

#### Clinical Laboratory of San Bernardino 18J0898

J101105-0102

#### **RECEIVING LABORATORY: SENDING LABORATORY:** Air Technology Labs Clinical Laboratory of San Bernardino 18501 East Gale Avenue Suite 130 21881 Barton Road City of Industry, CA 91748 Grand Terrace, CA 92313 Phone: (626) 964-4032 Phone: 909.825.7693 Fax: Fax: 909.825.7696 Project Manager: Stu Styles Please email results to Project Manager: Stu Styles styles@clinical-lab.com [ ] nelson@clinical-lab.com [ ] glaubig@clinical-lab.com California EDT transfer those samples with PS codes provided Water Trax Upload Client: [ ] 10 Days 5 Days [ ] Other \_ Days Turn Around Time **Subcontract Comments:** Comments **Analysis** Sampled: 10/09/18 11:40 PS Code: Sample ID: Raw Water Site #1 / 18J0898-01 Water WTX ID: Report in mg/L Methane RSK175 Containers Supplied: 40ml Amber Vial (B) 40ml Amber Vial (C) Sample ID: Reservoir Effluent Site #5 / 18J0898-05 Sampled: 10/09/18 12:10 PS Code: Water WTX ID: 62 Report in mg/L Methane RSK175 Containers Supplied:

40ml Amber Vial (C)

40ml Amber Vial (B)

Client:

Clinical Laboratory

Attn:

Stu Styles

Project Name:

NA

Project No.:

18J0898

Date Received:

10/11/18

Matrix:

Water

Reporting Units:

ug/L

#### **RSK175**

Lab No.:	J1011	05-01	J1011	05-02		
	Raw Wate	r Site #1	Reservoir	Effluent		
Client Sample I.D.:	/ 18J08		Site #5 / 1	8J0898-		
	/ 10000	<i>70 01</i>	05	5		
Date/Time Sampled:	10/9/18	11:40	10/9/18	12:10		
Date/Time Analyzed:	10/11/18	3 15:28	10/11/18	15:16		
QC Batch No.:	1810110	GC8A1	1810110	GC8A1		
Analyst Initials:	AS	5	AS	S		
Dilution Factor:	1.0	)	1.0	)		
	Result	RL	Result	RL		
ANALYTE	ug/L	ug/L	ug/L	ug/L		
Methane	2,000	1.0	180	1.0		

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: \_

Mark Johnson

**Operations Manager** 

Date W/18/18

The cover letter is an integral part of this analytical report

#### LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 181011GC8A1

Matrix: Air Reporting Units: ug/L

#### RSK175 LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD	BLANK		L	CS	L	CSD				
Date/Time Analyzed:	10/11/18	11:52		10/11/1	18 11:24	10/11/	18 11:37				
Analyst Initials:	AS			A	S	1	AS				
Dilution Factor:	1.0			1	.0	]	1.0				
ANALYTE	Result ug/L	RL ug/L	SPIKE AMT. ug/L	Result ug/L	% Rec.	Result ug/L	% Rec.	RPD	Low %Rec	High %Rec	Max. RPD
Ethene	ND	1.0	1,150	1,060	92.6	1,050	91.6	1.1	70	130	30
Ethane	ND	1.0	1,230	1,200	98.0	1,200	97.6	0.4	70	130	30
Methane	ND	1.0	654	653	99.8	654	99.9	0.2	70	130	30

ND= Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson
Operations Manager

Date 10/18/18

The cover letter is an integral part of this analytical report

1870898

# Clinical Laboratory of San Bernardino, Inc.

Client		City of Lomita	Syste	System Number	nber				Anal	<b>Analysis</b> F	Requested	sted						
Address		24373 Walnut Avenue			707	4040072												
		Lomita, CA 91717			6	200									M			
Phone #		(310)903-2243		Ď	estinatio	Destination Laboratory	ory					He			etha			
Fax#				X		Clinical Laboratory	ory			Iro		tetr			ane			
Project		Standard Analysis		A	SWQCB (	RWQCB Compliance	;e					oph			(W	Ha		
Sub Project	Ü	CWPF Monthly Compliance Samples;				YES				E. Col Man	Coli	nic Pl	litrat	Odor Color	ATEI	ardne		
		zna week of October, 2010			1	# JK						ate			R)	ess		
Comments					7	1088			Solid	nese	·m	Cou			(RSF	**		
Sampled by		Patrick McCue			•				8			nt			(175)			
Date	Time	Sample Idenitification	Matrix	Type	Preserv	Temp.	Hd	Total	T						)			
0/9/2018 114C	<u>၁</u>	Raw Water Site #1	αS	<u>8</u>	N/S	23.5°	7.40	Ø	×	×			<u> </u>	×				
10/9/2018 1/40	ç	Raw Water Site #1	ΜS	3	1, 2, 7					<del> </del> ^	X, X*	×			×	×		
10/9/2018	1155	Filter Effluent (Free Chlorine) Sitc#2	ρW	3	1,7	<b>23.2</b> 6	7.46	10.6		Ĥ	×	×						
10/9/2018	1200	Filter Effluent (Total Chlorine) Site#3	ρW	3	N/A	23.2	3.	9. 00		×			<u> </u>	×				
10/9/2018 1205	اي	Zone #2 Site #6	DW	<u>a</u>	N/A	2220	8.30	2.15	×							×		
10/9/2018 12 iO	ō	Reservoir Effluent Site #5	ρw	e	N/A	22.8°	7.86	3.44	×					×		×		
10/9/2018 1/2	1210	Reservoir Effluent Site #5	DW	<u> </u>	2,7										×			
Preservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO3	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) I	HCI (3) HNO3 (4) NH4CI	Matrix: DW-Drinkin	V-Drinki	ng Wate	r, WW-Wa	g Water, WW-Waste Water,	SW.	n Wate	r, GW-	Groun	d Wat	er, A-A	i.			Type- 1-Routine, 2-Repeat,	e, 2-Repeat,
(5) H2SO4 (6)	) Na2SO3 (7)	(5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:						3-Re	3-Replacement, 4-Special W-Well D-Dist.	ent, 4-	Specie	W-W	ell D-	Dist.				
Relinquish	Relinquished By (Sign)	n) Print Name / Company	y			Date / Time	Time				Rec	Received By	By (Signt)	Com			Print Name / Co.	Company
Harred M	hhim	Patrick McCue /City of Lomita 10/9/2018	Comita 10	)/9/201	80	/	);	15		A	12	M	N	1			4ris Marti	730
thri	is		/	1-6-01	(3		3.	54			Z.	16	A	Š	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		14 C)	CISI
Comments:					Sa	ımples r	Samples received: (	( ) On ice	ice (		) Intact	$\widehat{}$	Cust	Custody seals Temp	als T	emp	7.X ()F (	\ \_
Shipped Via		Fed X     Golden State	I I UPS	1 1 5	Client	Other						Pag	Page_1_ e	of_!_				
																		Į.



29 October 2018 Clinical Lab No.: 18J1392

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

Project Name: Standard Analysis

Sub Project: CWPF 3rd Week of October, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 10/16/18 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

Stu Styles

Client Services Manager

tistes



Lomita, City ofProjectStandard AnalysisWork Order:18J139224373 Walnut AvenueSub Project:CWPF 3rd Week of October, 2018 Compliance Sampl Received:10/16/18 15:28Lomita CA, 91717Project Manager:Mark AndersenReported:10/29/18

Reservoir Influent Site #3		18J1392-0	1 (Water)		Sample Da	te: 10/16/18	3 9:45 <b>Sa</b>	mpler: P.1	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	10.7		N/A	mg/L	10/16/18	10/16/18	1842072	
pH (Field)	Field	7.92		N/A	pH Units	10/16/18	10/16/18	1842072	
Temperature (Field)	Field	22.5		N/A	°C	10/16/18	10/16/18	1842072	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	10/16/18	10/16/18	1842090	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	10/26/18	10/26/18	1843133	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	10/26/18	10/26/18	1843133	
Reservoir Effluent Site #5		18J1392-0	2 (Water)		Sample Da	te: 10/16/18	3 9:55 <b>Sa</b>	mpler: P.1	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.76		N/A	mg/L	10/16/18	10/16/18	1842072	
pH (Field)	Field	8.21		N/A	pH Units	10/16/18	10/16/18	1842072	
Temperature (Field)	Field	22.5		N/A	°C	10/16/18	10/16/18	1842072	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	10/16/18	10/16/18	1842090	
Odor Threshold	EPA 140.1-M	2	1	3	TON	10/16/18	10/16/18	1842090	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	620	5.0	1000	mg/L	10/17/18	10/18/18	1842071	



October 25, 2018

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



EPA Methods TO3, TO14A, TO15, RSK-175

#### LABORATORY TEST RESULTS

Project Reference: 18J1392 Lab Number: J101701-01

Enclosed are results for sample(s) received 10/17/18 by Air Technology Laboratories. Samples were received intact and chilled to 7° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

#### Report Narrative:

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

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

Sincerely,

Mark Johnson Operations Manager

MJohnson@AirTechLabs.com

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

#### SUBCONTRACT ORDER

# Clinical Laboratory of San Bernardino 18J1392

J101781-01

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	
California EDT transfer those samples Water Trax Upload Client: Turn Around Time [] 10 Days [, 1/5]	nical-lab.com [] nelson@clinical-lab.com
Subcontract Comments:	
Analysis	Comments
Sample ID: Reservoir Effluent Site #5 / 18J1392	02 Sampled: 10/16/18 09:55 PS Code: Water WTX ID:
Methane RSK175	Report in mg/L
ontainers Supplied:	
Oml Amber Vial (B) 40	nl Amber Vial (C)
	an company and an experimental and a second of the company

7/18 835 Time

Released By

10/17/18 07:30 Received

Received By

Date / Time

Dota / Time

Date / Time

Received By

Released By

Client:

Clinical Laboratory

Attn:

Stu Styles

**Project Name:** 

NA

Project No.:

18J1392

Date Received:

10/17/18

Matrix:

Water

Reporting Units:

mg/L

#### RSK175

Lab No.:	J10170	01-01			×		
Client Sample I.D.:	Reservoir Site #5/183						
Date/Time Sampled:	10/16/1	8 9:55					
Date/Time Analyzed:	10/24/18	3 12:37					
QC Batch No.:	1810240	GC8A1					
Analyst Initials:	CM/	MJ	-			5	
Dilution Factor:	1.0	)					
ANALYTE	Result mg/L	RL mg/L	a a	9			
Ethene	ND	0.0010					
Ethane	0.00026	0.0010					
Methane	0.32	0.0010					
			+				

ND	= Not	Detected	(helow	RIA

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson

**Operations Manager** 

The cover letter is an integral part of this analytical report

Date 13/25/18



#### LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 181024GC8A1

Matrix: Air Reporting Units: mg/L

#### **RSK175** LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD	BLANK		L	CS	L	CSD	I			
Date/Time Analyzed:	10/24/18	11:39		10/24/	18 10:59	10/24/	18 11:22	1			
Analyst Initials:	CM/N	⁄IJ		CM.	I/MJ	CM	I/MJ				
Dilution Factor:	1.0			1	.0	]	1.0	]			
ANALYTE	Result mg/L	RL mg/L	SPIKE AMT. mg/L	Result mg/L	% Rec.	Result mg/L	% Rec.	RPD	Low %Rec	High %Rec	Max. RPD
Ethene	ND	0.0010	1.15	1.06	92.6	1.01	87.8	5.3	70	130	30
Ethane	ND	0.0010	1.23	1.19	96.7	1.11	90.2	6.9	70	130	30
Methane	ND	0.0010	0.654	0.599	91.5	0.566	86.4	5.7	70	130	30

ND= Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark Johnson
Operatione \*\*

The cover letter is an integral part of this analytical report

Chain of Custody	
, ,	0/3/004

t cilo		City of I granita		A constant	100				Andrea	Androin Dominator	001	700		72-
) lean		Cuy of Lomina	o o	System Murinber	ianei				Alialy	אוא אופ	nen nen	ן אַן	-	
Address	24	24373 Walnut Avenue			107	1910072								
		Lomita, CA 91717			1 2 1	001					М			
Phone #		(310)903-2243		7	estinatio	Destination Laboratory	tory				leth			
Fax#					X] Clinica	[X] Clinical Laboratory	ory			ar.	ane			
Project		Standard Analysis			RWQCB	RWQCB Compliance	eo		l Diss on / M		(Wa	0		•
to die	CWPF 3rd we	CWPF 3rd week of October, 2018 Compliance				yes				olor		dor		•
one Project		Sampling			EL	ELAP#					) (R			
Comments	For TC/EC/BA	For TC/EC/BACT see weekly Distro CoC			7	4000					SK1			
Sampled by	.₽ 	P. M.	:		_	000					75)			
Date Time		Sample Idenitification	Matrix	Type	Preserv	필	Temp.	Total						Comments / P.S. Codes
10/16/2018 19/	10/16/2018 O945 Reservoir Influent Site #3	Jent Site #3	DW	1W	N/A	792	,522	10.7	X	X	Н		_	
10/16/2018	10/16/2018 OF C Reservoir Effluent Site #5	uent Site #5	DW	M1	۷ N	78	2253	3.76	_	x		×		
10/16/2018 095	10/16/2018 0955 Reservoir Effluent Site #5	uent Site #5	DW	M1	7						×			
						_			<u> </u>					
													<u> </u>	
									_					
														,
											-			
														)
Preservatives: (1)	Preservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO3 (4) NH4CI	HNO3 (4) NH4CI	Matrix: DW-Drin	W-Drinki	ng Water,	WW-Was	king Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air	W-Storm V	Vater, G	W- Grot	Ind W.	ater, A-Ai	, r	Type- 1-Routine, 2-Repeat, 3-
(5) H2SO4 (6)	(5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:	) Other:						Repl	acement	, 4-Spe	ial M	Replacement, 4-Special W-Well D- Dist.	Dist.	
Relinquish	Relinquished By (Sign)	Print Name / Company				Date / Time	Time			10		`		of Print Name / Company
Patrick m	has	Patrick M. Col City of Lomita		10/16/20	/ 8102		.)	/0)	7	May	1	,		UNIS Weather
4/ Man	COOCA	6658		2			3,	87		8	K		H	T JA CUSIS
Comments:					<b></b>	samples	Samples received: (	: ( ) On ice	jce 🗡		)  ct	) Cus	stody s	Thract ( ) Custody seals Temp [1, 0] ( ) F W C
Shipped Via		Fed X     Golden State	SUL	Cli	Tient	Other					Pag	Page_I_of_	1	



05 November 2018 Clinical Lab No.: 18J2007

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

Project Name: Standard Analysis

Sub Project: CWPF 4th Week of October, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 10/23/18 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

Stu Styles

Client Services Manager

tistes



Lomita, City ofProjectStandard AnalysisWork Order:18J200724373 Walnut AvenueSub Project:CWPF 4th Week of October, 2018 Compliance Sampl Received:10/23/18 18:30Lomita CA, 91717Project Manager:Mark AndersenReported:11/05/18

Reservoir Influent Site #3		18J2007-0	1 (Water)		Sample Da	te: 10/23/1	8 10:05 <b>Sa</b>	mpler: P.1	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	11		N/A	mg/L	10/23/18	10/23/18	1843075	
pH (Field)	Field	7.94		N/A	pH Units	10/23/18	10/23/18	1843075	
Temperature (Field)	Field	22.6		N/A	°C	10/23/18	10/23/18	1843075	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	10/23/18	10/23/18	1843109	
Metals									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	11/01/18	11/01/18	1844087	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	11/01/18	11/01/18	1844087	
Reservoir Effluent Site #5		18J2007-0	2 (Water)		Sample Da	te: 10/23/1	8 10:25 <b>Sa</b>	mpler: P.	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.45		N/A	mg/L	10/23/18	10/23/18	1843075	
pH (Field)	Field	8.18		N/A	pH Units	10/23/18	10/23/18	1843075	
Temperature (Field)	Field	21.4		N/A	°C	10/23/18	10/23/18	1843075	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	10/23/18	10/23/18	1843109	
Odor Threshold	EPA 140.1-M	2	1	3	TON	10/23/18	10/23/18	1843109	
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	650	5.0	1000	mg/L	10/25/18	11/01/18	1843106	
ND Analyte NOT DETECTED at or	abarra tha ranartina limit								



November 1, 2018

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

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: 18J2007 Lab Number:

J102504-01

Enclosed are results for sample(s) received 10/25/18 by Air Technology Laboratories. Samples were received intact and chilled to 5° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

#### Report Narrative:

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

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

Sincerely,

Mark Johnson

**Operations Manager** 

MJohnson@AirTechLabs.com

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

#### SUBCONTRACT ORDER

J102504 J102504

## Clinical Laboratory of San Bernardino

#### 18J2007

SENDING LABORATORY:	<b>RECEIVING LABORATORY:</b>	
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 [ V] styles@clinical California EDT transfer those samples with	al-lab.com [] nelson@clinical-lab.com	
Water Trax Upload Client:	[ ] Yes [\] No	
Turn Around Time [] 10 Days 5 Days Subcontract Comments:	s [ ] Other Days	
Analysis	Comments	
Sample ID: Reservoir Effluent Site #5 / 18J2007-02		
	Water WTX ID:	
Methane RSK175	Report in mg/L	
ontainers Supplied:		
0ml Amber Vial (B) 40ml A	Amber Vial (C)	
	Tao	
B) Jay 10/25/18- Released By Date / Time	02:40 M. Slar 10/25/18 8:01	<u>)</u>
Released By Date / Time	Date /Time 10:43	-3

Client:

**Clinical Laboratory** 

Attn:

Stu Styles

**Project Name:** 

NA

Project No.:

18J2007 10/25/18

Date Received: Matrix:

Water

Reporting Units: mg/L

			I	RSK175					
Lab No.:	J1025	04-01				1			
Client Sample I.D.:	Reservoir Site #5/18.								
Date/Time Sampled:	10/23/18	3 10:25					 3		
Date/Time Analyzed:	10/30/18	3 15:32							
QC Batch No.:	1810300	GC8A1							
Analyst Initials:	CM/	MJ							
Dilution Factor:	1.0	)							
ANALYTE	Result mg/L	RL mg/L							
Methane	0.30	0.0010			7.	×2			

ND=	Not	Detected	(below	RL)

RL = Reporting Limit

Reviewed/Approved By:

**Operations Manager** 

The cover letter is an integral part of this analytical report

#### LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 181030GC8A1

Matrix: Air Reporting Units: mg/L

#### RSK175 LABORATORY CONTROL SAMPLE SUMMARY

Lab No.: Date/Time Analyzed:	METHOD 10/30/18				CS 8 12:04		CSD 18 12:18				
Analyst Initials:	CM/N	1J		CM	I/MJ	CM	I/MJ				
Dilution Factor:	1.0			1	.0	1	.0				
ANALYTE	Result mg/L	RL mg/L	SPIKE AMT. mg/L	Result mg/L	% Rec.	Result mg/L	% Rec.	RPD	Low %Rec	High %Rec	Max. RPD
Methane	ND	0.0010	0.654	0.629	96.1	0.639	97.7	1.6	70	130	30
											100

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

1832007Chain of Custody 0/3/4

Client	City	City of Lomita	Syst	System Nur	umber				Analys	Analysis Requested	dnest	ted			
Address	24373 W	24373 Walnut Avenue			1910073	073									
	Lomita	Lomita, CA 91717			2	2					M				
Phone #	(310)	(310)903-2243		۵	Destination Laboratory	aborator	y		1		etha				
Fax#				d	[X] Clinical Laboratory	aborator	ý			r	ane				
Project	Standa	Standard Analysis		u <u>c</u>	RWQCB Compliance	трііапсе			Disso n / M		(Wa	Oc		•	
	CWPF 4th week of C	CWPF 4th week of October, 2018 Compliance			yes	,,			_	lor		lor			
Sub Project	Sa	Sampling			ELAP#	# 4				16.2	(R				
Comments	For TC/EC/BACT se	For TC/EC/BACT see weekly Distro CoC			1088	×				de	SK1				
Sampled by	6.W.				2	3					5)				
Date Time		Sample Idenitification	Matrix	Type	Preserv	<u>=</u>	Temp.	Total Chlorine						Comments / P.S. Codes	
10/23/2018 10:05	₹ Reservoir Influent Site #3	te #3	DW	W.	N/A	7.94	20,6	0	<b>'</b>	X					
10/23/2018 10	102 S Reservoir Effluent Site #5	te #5	DW	M1	S A/N	3.18	214	3.45	-	×		×			
	107名 Reservoir Effluent Site #5	ite #5	DW	1.00	2						×				
					_										
			,												
						,t									ĺ
												-			
												+	+		
Preservatives: (1)	Preservatives: (1) $Na_2S_2O_3$ (2) HCI (3) HNO3 (	(4) NH4CI	Matrix: DV	V-Drinkir	Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air	W-Waste	Water, S.	W-Storm	Water, G	W- Gro	und W	/ater, A	Air	Type- 1-Routine, 2-Repeat, 3-	34, 3.
(5) H2SO4 (t	(5) H2SO4 (6) Na2SO3 (7) Cold (8) Other:		:					Кері	Replacement, 4-Special W-Well D- DIST.	t, 4-5pe	icial v	v-well	D- DIST.		Ì
Relinguish	Relinquished By (Sign)	Print Name / Company			i	Date / Time	ime			,	1			Print Name / Company	į
Pt. 18 M.C.		Patrick ANY & City of Lomita	1	10/23/20	8107	24	\ \ \				1	793	000	CCFB	
		258		6,1		63	0			7	7/	7	22	Bob Glaubic / CLSR	
Comments:					ž	mples r	eceived:	Samples received: ( $\sqrt{\mathrm{On}}$ ice	$\overline{}$	VIntact (	act (		ustody	) Custody seals Temp 7 () F () C	
C1		Fod X     Golden State	Sd/I	Client	nt   Other	ther					Pa	Page 1 of	of 1		
Shipped Via		amic manage	2	-								I			



07 November 2018 Clinical Lab No.: 18K0006

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

Project Name: Standard Analysis

Sub Project: CWPF 5th Week of October, 2018 Compliance Sampling

Enclosed are the results of the analyses for samples received at the laboratory on 10/30/18 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

Stu Styles

Client Services Manager

tistes



Lomita, City ofProjectStandard AnalysisWork Order:18K000624373 Walnut AvenueSub Project:CWPF 5th Week of October, 2018 Compliance SamplReceived:10/30/18 16:40Lomita CA, 91717Project Manager:Mark AndersenReported:11/07/18

Reservoir Influent Site #3		18K0006-	01 (Water)		Sample Da	<b>te:</b> 10/30/1	8 10:55 <b>Sa</b>	mpler: P.1	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	9.2		N/A	mg/L	10/30/18	10/30/18	1844106	
pH (Field)	Field	7.53		N/A	pH Units	10/30/18	10/30/18	1844106	
Temperature (Field)	Field	22.3		N/A	°C	10/30/18	10/30/18	1844106	
General Physical Analyses									
Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	10/30/18	10/30/18	1844095	
<u>Metals</u>									
Iron (Fe)	EPA 200.7	ND	100	300	ug/L	11/05/18	11/05/18	1845027	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	11/05/18	11/05/18	1845027	
Reservoir Effluent Site #5		18K0006-	02 (Water)		Sample Da	te: 10/30/1	8 11:10 Sa	mpler: P.1	M.
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	2.86		N/A	mg/L	10/30/18	10/30/18	1844106	
pH (Field)	Field	7.72		N/A	pH Units	10/30/18	10/30/18	1844106	
Temperature (Field)	Field	21.7		N/A	°C	10/30/18	10/30/18	1844106	
General Physical Analyses									
Apparent Color	SM 2120BM	ND	3.0	15	Color Units	10/30/18	10/30/18	1844095	
Odor Threshold	EPA 140.1-M	2	1	3	TON	10/30/18	10/30/18	1844095	
General Chemical Analyses									
General Chemical Analyses									
Total Filterable Residue/TDS	SM 2540C	530	5.0	1000	mg/L	11/05/18	11/07/18	1845025	



November 8, 2018



Clinical Laboratory of San Bernardino ATTN: Stu Styles 21881 Barton Rd. Grand Terrace, CA 92313 RSK-175

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: 18K0006 Lab Number: J110204-01

Enclosed are results for sample(s) received 11/02/18 by Air Technology Laboratories. Samples were received intact and chilled to 3° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

#### Report Narrative:

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

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

Sincerely,

Mark Johnson

**Operations Manager** 

MJohnson@AirTechLabs.com

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

#### SUBCONTRACT ORDER

2 of 4 J110204

## Clinical Laboratory of San Bernardino 18K0006

			Ì	
SENDING LABORATORY:	=	RECEIVING LABORA	ATORY:	
Clinical Laboratory of San Berna	ardino	Air Technology Labs		
21881 Barton Road		18501 East Gale Aven	ue Suite 130	
Grand Terrace, CA 92313		City of Industry, CA 9	1748	
Phone: 909.825.7693		Phone :(626) 964-403	2	
Fax: 909.825.7696		Fax:		
Project Manager: Stu Styles				
Please email results to Project M [ ] glaubig@clinical-lab.com	anager: Stu Styles  styles@clinical-lab.com  [	] nelson@clinical-lab.co	m	P.4
California EDT transfer the Water Trax Upload Client	hose samples with PS codes provit:	vided []Yes [\]No []Yes [\]No		
Turn Around Time [ ] 10 D Subcontract Comments:	Days [ ] Other	Days		
	g'r 2817			
		begin på star pata 1975 på		
Analysis	ž.	N. Andr	Comments	
Sample ID: Reservoir Effluent Sit	e #5 / 18K0006-02 Sam Wate	oled: 10/30/18 11:10 PS C	ode: WTX ID:	
Methane RSK175		Kabupatèn	Report in mg/L	
Containers Supplied:				
0ml Amber Vial (B)	40ml Amber Vial (C)			
		to Participant to a some one more	en Mariento anticolore de la California de la constanción de la co	O TO THE RESIDENCE OF THE CONTROL

/14 G:35

Refeased By

11/01/18 14:30

Received By

11/2

Date / Time

Date / Time

Received By

Date / Time

Client:

**Clinical Laboratory** 

Attn:

Stu Styles

**Project Name:** 

NA

Project No.:

18K0006

Date Received:

11/02/18

Matrix:

Water

Reporting Units: mg/L

**RSK175** 

Lab No.:	J11020	04-01			1			
Client Sample I.D.:	Reservoir Site #5 / 13	8K0006-					·	
Date/Time Sampled:	10/30/18	3 11:10						
Date/Time Analyzed:	11/7/18	13:06				8	Tip.	
QC Batch No.:	1811070	GC8A1						
Analyst Initials:	CM/	MJ						
Dilution Factor:	1.0	)						
ANALYTE	Result mg/L	RL mg/L	×	×				
Methane	0.29	0.0010						

ND= Not	Detected	(below	RL)	١

RL = Reporting Limit

Reviewed/Approved By:

**Operations Manager** 

The cover letter is an integral part of this analytical report

#### LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 181107GC8A1

Matrix: Air Reporting Units: mg/L

#### RSK175 LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD	BLANK		L	CS	LO	CSD				
Date/Time Analyzed:	11/7/18 1	2:19		11/7/1	8 10:41	11/7/1	8 10:56				
Analyst Initials:	CM/N	1J		CM	I/MJ	CM	I/MJ				
Dilution Factor:	1.0			1	.0	1	0.1				
ANALYTE	Result mg/L	RL mg/L	SPIKE AMT. mg/L	Result mg/L	% Rec.	Result mg/L	% Rec.	RPD	Low %Rec	High %Rec	Max. RPD
Methane	ND	0.0010	0.654	0.610	93.3	0.618	94.4	1.2	70	130	30
					-						

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

Reviewed/Approved By:	х	Moll-	1	Date	11 /8	18
	Mark Johnson		-			

The cover letter is an integral part of this analytical report

**Operations Manager** 

OCO (nain of Custody	13/4
18/	

Client	City of Lomita	Sys	System Nun	Number			Analy	Analysis Requested	senbe	ted			:
Address	24373 Walnut Avenue			1016	1910073								
	Lomita, CA 91717	-		121	010				M				
Phone #	(310)903-2243		De	stination	Destination Laboratory		· · ·		leth				
Fax#			X]	Clinical	[X] Clinical Laboratory			Tota	ane				
Project	Standard Analysis		ž	WQCB Co	RWQCB Compliance		on / M	Co I Diss	(Wa	O			•
Sub Daoi	CWPF 5th week of October, 2018 Compliance			×	yes			olor		dor		-	
ono Project	Sampling			ELA	ELAP#								
Comments	For TC/EC/BACT see weekly Distro CoC			7	00			ids	SKI				
Sampled by	. \2			2	0001	;			l75)			·	
Date Time	Sam	Matrix	Туре	Preserv	pII Temp.	Total Chlorine	_	<u> </u>					Comments / P.S. Codes
10/30/2018 1055	10/30/2018 つくら Reservoir Influent Site #3	ΜQ	<u>%</u> 1	A/A	7.53 22.3	3.65	7	/					
Q111 8102/06/01	1110 Reservoir Effluent Site #5	ΜG	<u>×</u>	۷ X	7.72 21.7°	2.86		<b>/</b>		×			
10/30/2018 \\\\\	Reservoir Effluent Site #5	MG	<u>%1</u>	7					×				
									_				
						_		+		$\dashv$	1		
						-		+		+			
								+					
				14/242	Einer Mehrer Man Man Mater CIM Community CIM Community Man A M.	- 514 645							Time 4 Description 9 Descript 9
Freservatives: (1) Na	Freservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCI (3) HNO3 (4) NH4CI	Matrix. C	THE PARTY OF THE P	Water,	WW-Waste Water	Rent	Replacement 4-Special W-Well D- Dist	4 4.Sn	V leise	V-Well	D. Dist		Type- 1-noutile, z-nepeat, 3-
N (6) +OSZU (6)		<u> </u>					-	1					
Relinquished By (Sign)		V			Date / Time				1				Print Name / Company
total sh me.	Port rick MCod City of Lomita		10/30/2018	<b>x</b>	184			7	1/	7.120	₹ {2	8	CUSB
1/2	1		4		040			+	7	K	1		
Comments:				S.	Samples received: ( $$ On ice $()$ Intac	rd: (√) On	ice (	V Int	$\left\langle \right\rangle$	) ( •	ustody	Custody seals Temp_	$\mathcal{L}()F()C$
Shipped Via	Fed X     Golden State	I   UPS	Client		Other				Pa	Page_I_of	_1_fo		
7.7													



19 October 2018 Clinical Lab No.: 18J0818

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

Project Name: Standard Analysis

Sub Project: Lomita Distribution Ortho, 2nd Week October 2018

Enclosed are the results of the analyses for samples received at the laboratory on 10/09/18 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

Stu Styles

Client Services Manager

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Lomita, City ofProjectStandard AnalysisWork Order:18J081824373 Walnut AvenueSub Project:Lomita Distribution Ortho, 2nd Week October 2018Received:10/09/18 15:45Lomita CA, 91717Project Manager:Mark AndersenReported:10/19/18

1948 252nd St.		18J0818-0	1 (Water)		Sample Da	ate: 10/09/18	9:15	Sampler: 1	Not Listed
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	2.2		N/A	mg/L	10/09/18	10/09/18	1841113	
pH (Field)	Field	8.22		N/A	pH Units	10/09/18	10/09/18	1841113	
Temperature (Field)	Field	22.4		N/A	°C	10/09/18	10/09/18	1841113	
General Chemical Analyses									
Ortho-Phosphate (PO4)	HACH 8048	0.16	0.020	N/A	mg/L	10/10/18	10/10/18	1841133	
Phosphorus (Total as P)	HACH 8190	0.11	0.0067	N/A	mg/L	10/12/18	10/12/18	1841199	
24632 S. Moon		18J0818-0	2 (Water)		Sample Da	ate: 10/09/18	9:45	Sampler: 1	Not Listed
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	1.8		N/A	mg/L	10/09/18	10/09/18	1841113	
pH (Field)	Field	8.09		N/A	pH Units	10/09/18	10/09/18	1841113	
Temperature (Field)	Field	23.7		N/A	°C	10/09/18	10/09/18	1841113	
General Chemical Analyses									
Ortho-Phosphate (PO4)	HACH 8048	0.19	0.020	N/A	mg/L	10/10/18	10/10/18	1841133	
Phosphorus (Total as P)	HACH 8190	0.13	0.0067	N/A	mg/L	10/12/18	10/12/18	1841199	
2450 W. 247th St.		18J0818-0	3 (Water)		Sample Da	ate: 10/09/18	10:40	Sampler: 1	Not Listed
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	0.37		N/A	mg/L	10/09/18	10/09/18	1841113	
pH (Field)	Field	8.01		N/A	pH Units	10/09/18	10/09/18	1841113	
Temperature (Field)	Field	24.6		N/A	°C	10/09/18	10/09/18	1841113	
General Chemical Analyses									
Ortho-Phosphate (PO4)	HACH 8048	0.075	0.020	N/A	mg/L	10/10/18	10/10/18	1841133	
Phosphorus (Total as P)	HACH 8190	0.062	0.0067	N/A	mg/L	10/12/18	10/12/18	1841199	



Lomita, City ofProjectStandard AnalysisWork Order:18J081824373 Walnut AvenueSub Project:Lomita Distribution Ortho, 2nd Week October 2018Received:10/09/18 15:45Lomita CA, 91717Project Manager:Mark AndersenReported:10/19/18

2052 Dawn St.		18J0818-0	4 (Water)		Sample Da	nte: 10/09/18	8 9:25 <b>Sa</b> i	mpler: N	ot Listed
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	2.7		N/A	mg/L	10/09/18	10/09/18	1841113	
pH (Field)	Field	8.27		N/A	pH Units	10/09/18	10/09/18	1841113	
Temperature (Field)	Field	22.9		N/A	°C	10/09/18	10/09/18	1841113	
General Chemical Analyses									
Ortho-Phosphate (PO4)	HACH 8048	0.098	0.020	N/A	mg/L	10/10/18	10/10/18	1841133	
Phosphorus (Total as P)	HACH 8190	0.043	0.0067	N/A	mg/L	10/12/18	10/12/18	1841199	
CWPF SP5		18J0818-0	5 (Water)		Sample Da	ite: 10/09/18	8 12:10 Sai	mpler: N	ot Listed
Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
Field Analyses									
Cl Res Total (Field)	Field	3.44		N/A	mg/L	10/09/18	10/09/18	1841113	
pH (Field)	Field	7.86		N/A	pH Units	10/09/18	10/09/18	1841113	
Temperature (Field)	Field	22.8		N/A	°C	10/09/18	10/09/18	1841113	
General Chemical Analyses									
Ortho-Phosphate (PO4)	HACH 8048	0.57	0.020	N/A	mg/L	10/10/18	10/10/18	1841133	
Ortho-Phosphate (PO4) Phosphorus (Total as P)	HACH 8048 HACH 8190	0.57 0.39	0.020 0.0067	N/A N/A	mg/L mg/L	10/10/18 10/12/18	10/10/18 10/12/18	1841133 1841199	

Chain of Custody 1850818

Client		City of Lomita	Sys	System Number	umber					Anal	Analysis Requested	
Address		24373 Walnut Avenue			1	4040072	7.2					
		Lomita, CA 91717				3 100	011			o	,	
Phone #		(310) 903-2243			Dest	Destination Laboratory	boratory			RTI	тот	
Fax#		(310) 325-3627			X	[X] Clinical Laboratory	boratory			10 P	ALI	
Project		Standard Analysis			RW	RWQCB Compliance	pliance			но	РНО	
Sub Project	Lomita,	Lomita Distribution Ortho, 2nd Week October,				No				SPH.	osph.	₽
nafor i ano		2018				ELAP#	#			ATE	ATI	
Comments						4000	0			(o-P	E (PC	-
Sampled by						00	0			O4)	04)	
Date	Time	Sample Idenitification	Matrix	Type	Preserv	Bottle Number	Тетр.	Total Chlorine	Hd			Comments / P.S. Codes
10/9/2018	0915 1948 252ND ST.	2ND ST.	DW	D1	N/A	3	224	2.2	8.22	X	X	
0/3/2018	0 <i>9</i> 45 24632 S. MOON	MOON.	DW	D1	N/A	4	13.70	1,8	18.09	X	X	
<b>3</b> 1 8102/6/01	1040 2450 W. 247th ST.	. 247th ST.	DW	D1	N/A	9	3.42	0.37	10,8	×	X	
10/9/2018	(925 2052 DAWN ST.	IWN ST.	DW	D1	N/A	7	622	2,7	8.27	×	×	
10/6/01	1210 CWPF SP5	P5	DW	D1	V/N	8	ુક ૨૨	3.44	12.66	х	×	
Preservatives: (	(1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) H	Preservatives: (1) Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (2) HCl (3) HNO3 (4) NH4Cl		Z	atrix: DW	-Drinking	Water, WV	V-Waste M	Vater, SW-S	torm	Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW- Ground Water, A-Air	Water, A-Air
(5) H2SO4	(5) H2SO4 (6) Na2SO3 (7) Cold (8) Other	Cold (8) Other:			_	ype- 1-Ro	utine, 2-R	epeat, 3-R	eplacemen	t, 4-Sp	Type- 1-Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D-Dist.	ist.
Relinquis	Relinquished By (Sign)	Print Name / Company				Dί	Date / Time			·	Received By (Sign)	1) Print Name / Company
Putrick Mega	30	Patrick Mc Letty of Lomita	mita	10/9/2018	810	1		1:15			Three	Varia Martinez
thu	1 14			6-01	8/6			5.45	`	ŕ	Formatte Alex	white se co
	•				Sample	Samples received: (		On ice (	( ) Intact	<u> </u>	Custody souls	s Temp (1)
Shipped Via		Fed X     Golden State	SUP	Client		Other					Page 1 of 1	
											1	

#### **APPENDIX B**

METHANE MONITORING LOG



# CITY OF LOMITA PUBLIC WORKS DEPARTMENT

# CYPRESS WATER PRODUCTION FACILITY HANDHELD METHANE LOG READINGS

		ОСТО	BER 2018	
DATE	DAY	METHAN	E HANDHELD	COMMENTS
10/1/2018	Mon	CH4- 0%	Оху- 20.8%	
10/2/2018	Tue	CH4- 0%	Оху- 20.3%	
10/3/2018	Wed	CH4- 0%	Oxy- 20.9%	Offline
10/4/2018	Thu	CH4-	Оху-	Offline
10/5/2018	Fri	CH4-	Оху-	Offline
10/6/2018	Sat	CH4-	Оху-	Offline
10/7/2018	Sun	CH4-	Оху-	Offline
10/8/2018	Mon	CH4-	Оху-	Offline
10/9/2018	Tue	CH4-	Оху-	
10/10/2018	Wed	CH4- 0%	Oxy- 20.6%	
10/11/2018	Thu	CH4- 0%	Oxy- 20.9%	
10/12/2018	Fri	CH4-	Оху-	
10/13/2018	Sat	CH4-	Оху-	
10/14/2018	Sun	CH4-	Оху-	
10/15/2018	Mon	CH4- 0%	Oxy- 20.6%	
10/16/2018	Tue	CH4- 0%	Oxy- 20.9%	
10/17/2018	Wed	CH4- 0%	Oxy- 20.7%	
10/18/2018	Thu	CH4- 0%	Oxy- 20.9%	
10/19/2018	Fri	CH4-	Оху-	
10/20/2018	Sat	CH4-	Оху-	
10/21/2018	Sun	CH4-	Оху-	
10/22/2018	Mon	CH4- 0%	Oxy- 20.9%	
10/23/2018	Tue	CH4- 0%	Oxy- 20.8%	
10/24/2018	Wed	CH4-	Оху-	
10/25/2018	Thu	CH4- 0%	Oxy- 20.6%	
10/26/2018	Fri	CH4- 0%	Oxy- 20.9%	
10/27/2018	Sat	CH4-	Оху-	
10/28/2018	Sun	CH4-	Оху-	
10/29/2018	Mon	CH4- 0%	Oxy- 20.7%	
10/30/2018	Tue	CH4- 2%	Oxy- 20.8%	
10/31/2018	Wed	CH4- 4%	Oxy- 20.8%	

ND- Non Detect

CH4- Methane

Oxy- Oxygen

Day Off/Holiday- Red

#### **APPENDIX C**

NITRIFICATION MONITORING DATA SUMMARY

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

# Code	Sample ID	Location	Sample Date	Тетр	рН	Total Chlorine	Free Chlorine	Total Ammonia	Free Ammonia	Nitrite <sup>3</sup>	Nitrate	Coliform <sup>2</sup>	HPC	Zone	Comments
Units/C	thers ->		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	10/2/2018	24.7	7.75	3.50	0.06	0.66	0.07	0.010	ND	Α	ND.	1	Well/MWD Blend
2 D	\$13-004	24632 S Moon Ave	10/2/2018	24.0	7.67	3.20	0.06	< 0.62	0.15	0.022	ND	Α	3	1	Well/MWD Blend
3 D	S13-008	25417 Pennsylvania Ave	10/2/2018	24.5	7.72	3.70	0.05	0.66	0.03	0.011	ND	Α	ND	1	Well/MWD Blend
4 D	Α	2052 Dawn St	10/2/2018	24.7	7.55	0.98	0.05	0.31	0.14	0.129	ND	Α	100	1	Well/MWD Blend
5 D		Reservoir SP5	10/2/2018	24.0	7.79	3.56	0.06	0.82	0.09	0.005	ND	Α	ND	1	Well/MWD Blend
6 D	S13-001	1912 W 259th St	10/2/2018	24.7	8.21	2.20	0.05	0.47	0.09	0.008	ND	Α	ND	2	MWD Only
7 D	S13-002	26314 S Monte Vista Ave	10/2/2018	24.6	8.21	2.30	0.04	0.48	0.03	0.005	ND	Α	NĐ	3	MWD Only
8 D	S13-005	2500 PCH	10/2/2018	24.6	8.16	2.00	0.05	0.47	0.08	0.024	ND	Α	NĐ	2	MWD Only
							_								
1 D	S13-003	1948 W 252nd St	10/9/2018	22.4	8.22	2.20	0.07	0.46	0.07	0.009	ND	Α	ND	1	Well/MWD Blend
2 D	S13-004	24632 S Moon Ave	10/9/2018	23.7	8.09	1.80	0.06	0.22	0.14	0.025	ND	Α	8	1	Well/MWD Blend
3 D	S13-008	25417 Pennsylvania Ave	10/9/2018	24.1	7.79	3.30	0.06	0.51	0.10	0.016	ND	Α	ND	1	Well/MWD Blend
4 D	A	2052 Dawn St	10/9/2018	22.9	8.27	2.70	0.06	0.42	0.10	0.012	ND	A	6	1	Well/MWD Blend
5 D		Reservoir SP5	10/9/2018	22.8	7.86	3.14	0.07	0.70	0.00	0.009	ND	Α	ND	1	Well/MWD Blend
6 D	S13-001	1912 W 259th St	10/9/2018	21.6	8.27	2.50	0.05	0.46	0.03	0.010	ND	Α	NĐ	2	MWD Only
7 D	513-002	26314 S Monte Vista Ave	10/9/2018	20.6	8.26	2.40	0.08	0.48	0.00	€ .60.009 <sup>6</sup>	NĐ	Α	ND	3	MWD Only
8 D	\$13-005	2500 PCH	10/9/2018	22.8	8.25	2.20	0.05	0.53	0.00	0.013	ND	Α	ND	2	MWD Only
								Transis and a second	Marco S. 100 Marco 2010 100 100 100 100 100 100 100 100 10			1			т
1 D	513-003	1948 W 252nd St	10/16/2018	21.6	8.18	3,30	0.01	:0.59	0.06	0.009	ND	A	ND	1	Well/MWD Blend
2 D	S13-004	24632 S Moon Ave	10/16/2018	22.2	8.16	3.50	0.01	0.55	0.08	0.008	ND	Α	ND	1	Well/MWD Blend
3 D	S13-008	25417 Pennsylvania Ave	10/16/2018	23.2	8.18	3.80	0.03	0.59	0.06	0:008	ND	Α	ND	1	Well/MWD Blend
4 D	Α	2052 Dawn St	10/16/2018	22.5	8.12	1.93	0.01	0.51	0.15	0.008	ND	Α	130	1	Well/MWD Blend
5 D		Reservoir SP5	10/16/2018	22.5	8.21	3.76	0.04	0.64	0.04	0.009	ND	A	ND	1_	Well/MWD Blend
6 D		1912 W 259th St	10/16/2018	22.1	8.56	2.20	0.02	0.45	0.10	0.014	ND	Α	ND	2	MWD Only
7 D	S13-002	26314 S Monte Vista Ave	10/16/2018	21.5	8.57	2.40	0.01	0.45	0.08	0.012	ND	Α	ND	3	MWD Only
8 D	513-005	2500 PCH	10/16/2018	22.9	8.57	2.30	0.16	. 0.44	0.05	0.022	ND	ΑΑ	ND	2	MWD Only
								Ingerence of the second	rent our videncer	Section Conservation of				1 .	T
1 D		1948 W 252nd St	10/23/2018	22.3	8.22	3.00	0.05	0.52	0.00	0.006	ND	Α	ND	1	Well/MWD Blend
2 D		24632 S Moon Ave	10/23/2018	22.1	8.14	3.30	0.06	0.52	<i>₹</i> ∂0.05 ≈ <u>₹</u>	0.006	ND	Α	1	1	Well/MWD Blend
3 D	S13-008	25417 Pennsylvania Ave	10/23/2018	22.4	8.16	3.60	0.07	0.57	0.03	0.006	ND	Α	ND	1	Well/MWD Blend
4 D	Α	2052 Dawn St	10/23/2018	22.2	8.13	1.89	0.05	0.45	0.16	0:003	ND	A	90	1	Well/MWD Blend
5 D		Reservoir SP5	10/23/2018	21.4	8.18	3.45	0.04	0.60	0.02	0.006	ND	A	ND	1	Well/MWD Blend
6 D		1912 W 259th St	10/23/2018	21.4	8.51	1.90	0.09	0:33	0.05	0.010	ND	A	ND	2	MWD Only
7 D		26314 S Monte Vista Ave	10/23/2018	20.7	8.46	2.10	0.10	0.39	0:06	0.009	ND	A	ND	3	MWD Only
8 D	S13-005	2500 PCH	10/23/2018	21.5	8.44	2.00	0.06	0.40	0.08	0.012	ND	Α	ND	2	MWD Only
	,	·	<del></del>			1 111			والمراكب المطاعمة والمراكب والمراكب	CANTE CARROLL FOR			NID	T 4	Intell/9 4W/D Diagraf
1 D		1948 W 252nd St	10/30/2018	21.8	7.73	3.00	0.06	0.47	0.05	0.001	ND ND	Α	ND	1	Well/MWD Blend
2 D	1	24632 S Moon Ave	10/30/2018	22.8	7.68	2.60	0.06	· 0.39	0.00	0.006	ND	A	4	1	Well/MWD Blend
3 D	_	25417 Pennsylvania Ave	10/30/2018	22.7	7.69	3.00	0.06	0.42	0.00	0.008	ND	A	2	1	Well/MWD Blend
4 D		2052 Dawn St	10/30/2018	22.6	7.66	1.82	0.07	0.39	0:15	0.008	ND	A	140	1	Weli/MWD Blend
5 D	<del> </del>	Reservoir	10/30/2018	21.7	7.72	2.86	0.09	0.43	0.00	0.003	ND	A	1	1	Well/MWD Blend
6 D		1912 W 259th St	10/30/2018	20.6	8.11	2.20	0.07	0.44	0.03	0.017	ND	Α	ND	2	MWD Only
7 D		26314 S Monte Vista Ave	10/30/2018	19.7	8.14	2.20	0.09	0:43	0.02	0.009	ND	Α	ND	3	MWD Only
8 D	S13-005	2500 PCH	10/30/2018	21.9	8.09	2.70	0.04	0.39	0.00	0.024	ND	Α	1	2	MWD Only

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

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

<sup>&</sup>lt;sup>3</sup>The City is monitoring trends of Nitrite in Zone I, in accordance with the Nitrification Monitoring Plan. Hydrant flushing has been implemented.