

CITY OF LOMITA



Cypress Water Production Facility Monthly Status Report

December 2017

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CITY COUNCIL

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



CITY OF LOMITA

ADMINISTRATION

RYAN SMOOT
CITY MANAGER

January 10, 2018

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

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

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

Sincerely,

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

A. BACKGROUND

On March 15, 2013, the City of Lomita received conditional approval from the Department of Public Health (DPH) to distribute blended water from the Cypress Water Production Facility (CWPF) Well No. 5 to the City's customers.

The CWPF is an iron-manganese greensand filtration treatment system designed to remove primarily iron, manganese, and color. The CWPF was recently modified to enable aeration and blending with Metropolitan Water District (MWD) imported water to address the aesthetic secondary issues of Total Dissolved Solids (TDS), Hardness (as Calcium Carbonate), and Taste/Odor.

The CWPF came online on April 1, 2013. The first week of operations from April 1 to April 5, 2013 was utilized for conducting routine startup activities. The distribution of blended water to the City's residents began on April 5, 2013.

B. WELL PRODUCTION

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

Table 1. Monthly Production Totals.

Production for December 2017			
Well No. 5	50.38	ac-ft	16,415,451 (gallons)
MWD	46.81	ac-ft	15,252,000 (gallons)
Combined Total	97.19	ac-ft	31,667,451 (gallons)
Daily	3.14	ac-ft/day	1,021,531 (gallons/day)

C. OPERATIONAL INTERRUPTIONS

There were no operational interruptions during the month of December 2017. Routine and preventive maintenance was performed on various pieces of equipment as-needed. No major planned operational interruptions are anticipated for the following month.

D. SAMPLE LOCATIONS

Compliance monitoring is performed at the following sample locations: SP1, SP2, SP3, SP5, and SP6. The SP1 sample location is the raw well water sample location. The SP2 sample location is on the effluent side of the greensand filter (before ammonia injection or full chloramination). The SP3 sample location is downstream of the greensand filter after full chloramination and the static mixer before entering the reservoir. The SP5 sample location is the reservoir effluent sample location before entering the distribution system. The SP6 sample location is the MWD source sample location before blending occurs.

E. WATER QUALITY MONITORING

All water quality monitoring analyses were performed by laboratories certified by the Department of Health's Environmental Laboratory Accreditation Branch (ELAB). The CWPF has been continuously monitored, maintained and inspected, per the CWPF Operations Monitoring and Maintenance Plan. A brief discussion of the laboratory and/or monitoring results is provided below. Refer to Appendix A for laboratory results.

E1. IRON, MANGANESE AND COLOR

See Table 2 below for a summary of the results for the compliance monitoring at the three sample locations SP1 through SP3. Color for raw water (SP1) was below the MCL. Iron and Manganese in the raw water (SP1) for the month were below and above the MCL, respectively. Iron and Manganese levels before entering the reservoir (SP3) show non-detect, indicating the greensand filtration system remains highly effective.

E2. FREE AND TOTAL CHLORINE RESIDUALS

Daily free chlorine residuals were monitored at SP2, SP3, SP4 and SP5. Daily total chlorine residuals were monitored at SP3, SP4 and SP5. Free chlorine and total chlorine residuals, at all respective sample points, were monitored using a combination of continuous chlorine analyzers and SCADA. See Table 3 below for a weekly summary of results.

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

See Table 4 below for a summary of the results for the monitoring of Total Dissolved Solids (TDS), Odor (as measured by the Threshold Odor No. - T.O.N.), Total Hardness as Calcium Carbonate, and Methane levels in water at three sample locations SP1, SP5 and SP6.

E3-1 TOTAL DISSOLVED SOLIDS (TDS)

The sampling results indicate the TDS levels of the effluent blended water to be on average 557.5 mg/L. The TDS level of the effluent water meets the City's Water Quality Objective/Goal of 500 to 750 mg/L. The sampling results indicate the TDS levels in the raw water and MWD water source to be 820 mg/L and 250 mg/L, respectively.

E3-2 HARDNESS

The sampling results for the month indicate the hardness levels of the blended water to be on average 260 mg/L. This hardness level is slightly higher than the City's Water Quality Objective/Goal of 180 to 250 mg/L; staff continues to monitor hardness levels at the CWPF effluent (SP5) and within the water distribution system. The City has maintained a consistent blend ratio to ensure acceptable hardness levels are met.

Staff continues to use an orthophosphate/polyphosphate additive to sequester calcium hardness. Orthophosphate/Polyphosphate is a food grade National Sanitation Foundation (NSF 60) approved additive which decreases iron tuberculation, diminishes calcium scale deposits, minimizes corrosion, reduces discoloration, reduces staining and mineral build-up resulting in fewer customer complaints.

E3-3 DISSOLVED METHANE (IN WATER)

The methane levels in the CWPF effluent after aeration treatment remain negligible averaging 0.43 mg/L.

E3-4 METHANE (IN AIR)

The methane levels in the reservoir headspace are monitored daily by staff using a handheld device. These readings have consistently read non-detect to low concentrations for methane in air. Available methane hand held monitoring instruments can only detect levels of 1% Lower Explosive Limit (LEL) or greater. The handheld methane readings during the month were below the 50,000 ppm LEL. See attached methane log for the month of December 2017 in Appendix B.

E3-5 ODOR

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

E4. NITRIFICATION MONITORING

Weekly nitrification sampling was performed during the month of December 2017 following the City's Nitrification Monitoring Plan. Refer to Appendix C for results. During this month, additional hydrant flushing was implemented due to elevated Nitrite reads.

E5. Chromium 6

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

F. TABLES

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

Date, week of	SP1, Well Raw Water Discharge							SP2, Combined Pressure Filter Effluent			SP3, After chloramination static mixer; reservoir entry					
	Iron, ug/L	*MCL = 3 00 ug/L	Manganese, ug/L	*MCL = 50 ug/L	Color	*MCL=15	Total Coliform	Total Coliform	HPC, MPN/100mL	MCL=500	Iron, mg/L	*MCL = 300 ug/L	Manganese, mg/L	*MCL = 50 ug/L	Color	*MCL=15
12/6/2017											ND	300	ND	50	5	15
12/13/2017	200	300	170	50	10	15	A	A	A	500	ND	300	ND	50	7.5	15
12/20/2017											ND	300	ND	50	ND	15
12/27/2017											ND	300	ND	50	5	15

Notes:

Monthly- Orange; Weekly- Yellow

A – Absent

ND – Non Detect

*Per the SWRCB Drinking Water “Chemicals and Contaminants in Drinking Water” Regulations

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

Date, week of	SP2	SP3			SP4			SP5		
	Free Cl	Free Cl	Total Cl	Total NH ₃	Free Cl	Total Cl	Total NH ₃	Free Cl	Total Cl	Total NH ₃
12/6/2017	4.02	-	6.42	-	0.52	4.44	0.71	0.08	3.14	0.63
12/13/2017	5.24	-	5.40	-	0.50	5.19	1.15	0.08	3.57	0.87
12/20/2017	4.37	-	4.33	-	0.61	4.27	0.89	0.07	3.43	0.76
12/27/2017	4.06	-	5.40	-	0.40	4.19	0.85	0.31	3.32	0.81

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

Date, week of	TDS, mg/L				T.O.N.		Hardness, mg/L				Methane (Water), mg/L	
	SP1 - Raw Well Water	SP6 - MWD Water	SP5 - Reservoir Effluent	Goal= 500 - 750 mg/L	SP5 - Reservoir Effluent	MCL= 3	SP1 - Raw Well Water	SP6 - MWD Water	SP5 - Reservoir Effluent	Goal= 180 - 250 mg/L	SP1 - Raw Well Water	SP5 - Reservoir Effluent
12/6/2017			570	500-750	2	3						0.32
12/13/2017	820	250	550	500-750	3	3	390	110	260	180-250	4.1	0.47
12/20/2017			560	500-750	2	3						0.43
12/27/2017			550	500-750	2	3						0.49
Average			557.5	500-750	2.3	3						0.43

Notes:

Monthly- 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

Cypress Water Production Facility
City of Lomita; System No. 1910073

Sample Locations and Parameters	Frequency	MCL/ Goal	12/6 1stWk	12/13 2 nd Wk	12/20 3rdWk	12/27 4 th Wk	- 5 th Wk	Comments and/or Other Info.
			or Mo. Result (date)					
SP1 --- Also called Well 5 Raw Water or Site#1.								
TDS, ppm	Monthly	See SP5	820 12/13	Operations Data/Information: <u>CWPF operation days</u> On Well 5: Daily average flow – 380 gpm; total prod. – 50.38 AF Combined Well 5/MWD data: Average Well 5: MWD blend Ratio – 52% WELL: 48% MWD; total prod.- 97.19 AF Chlorine Dosage: N/A*				*Chlorine injected after SP1, before entering the greensand filter.
Hardness	Monthly	See SP5	390 12/13					
CH4, ppm	Monthly	See SP5	4.1 12/13					
Iron, ppb	Monthly	See SP3	200 12/13					
Manganese, ppb	Monthly	See SP3	170 12/13					
Color, units	Monthly	See SP3	10 12/13					
Total Coliform, P or A	Monthly	A	A 12/13					
SP2 --- Also called Filter Effluent or Site#3.								
Total Coliform, P or A	Monthly	A	A	Ammonia Dosage: N/A*				*Ammonia added after filter effluent
HPC,MPN/100 ml	Monthly	500	A					
Free Cl Res, ppm	Continuous	Average: 4.42 ; Range: 4.02 – 5.24						
SP3 --- Also called the Site After Chloramination & Before MWD Blending or Site#4.								
Iron, ppb	Weekly	ND	ND	ND	ND	ND		
Manganese, ppb	Weekly	50	ND	ND	ND	ND		
Color	Weekly	15	5	7.5	ND	5		
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: -; Range: - Total Cl: Average: 5.39; Range: 4.33 - 6.42 Ammonia: Average:-; Range: –						
SP4 --- Also called Reservoir Influent or the Site Well 5/MWD Water Blend Point/Phosphate Injection.								
Phosphate Injection		Phosphate Dosage: 0.97 mg/L						
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.51; Range: 0.40 – 0.61 Total Cl: Average: 4.52; Range: 4.19 – 5.19 Ammonia: Average: 0.90; Range: 0.71 – 1.15						Cl/NH3 Ratio: 5.04
SP5 --- Also called Reservoir Effluent or Site#5. SP5 discharges into Zone 1 of the distribution system.								
TDS, ppm	Weekly	SI Goal: 500-750ppm	570	550	560	550		% CH4 Removal: 90.1%
Hardness	Monthly	SI Goal: 180-250ppm		260				
CH4, ppm	Weekly	Goal: from PA	0.32	0.47	0.43	0.49		
Odor, units	Monthly	1	2	3	2	2		
Free and Total Cl Res, ppm	Continuous	Free Cl: Average: 0.13; Range: 0.07 – 0.31 Total Cl: Average: 3.37; Range: 3.14 - 3.57 Ammonia: Average: 0.77; Range: 0.63 – 0.87						Cl/NH3 Ratio: 4.39
Headspace of the Cypress Reservoir.								
1CH4 ppmv; using Portable Device	Daily (from log)	Goal - LEL	CH4 Average: 0.0% CH4 Range: 0%					
SP 6 --- MWD Source Feeding CWPF. Also called Zone 2 of the distribution system or Site #6.								
TDS, ppm	Monthly	-----		250				
Hardness	Monthly	-----		110				
Notes: 'Self-Imposed (SI) Goals: TDS Goal-500-750 ppm; Hardness as CaCO3 Goal-180-250 ppm. ***This Report is due to DDW by the 10 th of the following month.								

APPENDIX A

LABORATORY RESULTS

Clinical Laboratory of San Bernardino, Inc.



21 December 2017

Clinical Lab No.: 17L0582

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

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

Enclosed are the results of the analyses for samples received at the laboratory on 12/06/17. Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPf 1st Week of Dec, 2017 Compliance Sampling
Project Manager: Mark Andersen

Work Order: 17L0582
Received: 12/06/17 16:30
Reported: 12/21/17

Reservoir Influent Site #3 **17L0582-01 (Water)** **Sample Date:** 12/06/17 7:10 **Sampler:** Patrick McCue

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

Cl Res Total (Field)	Field	6.42		N/A	mg/L	12/06/17	12/06/17	1749138	
pH (Field)	Field	7.56		N/A	pH Units	12/06/17	12/06/17	1749138	
Temperature (Field)	Field	21.8		N/A	°C	12/06/17	12/06/17	1749138	

General Physical Analyses

Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	12/06/17	12/06/17	1749135	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	12/12/17	12/12/17	1750036	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	12/12/17	12/12/17	1750036	

Reservoir Effluent Site #5 **17L0582-02 (Water)** **Sample Date:** 12/06/17 8:00 **Sampler:** Patrick McCue

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

Cl Res Total (Field)	Field	3.56		N/A	mg/L	12/06/17	12/06/17	1749138	
pH (Field)	Field	7.67		N/A	pH Units	12/06/17	12/06/17	1749138	
Temperature (Field)	Field	19.4		N/A	°C	12/06/17	12/06/17	1749138	

General Physical Analyses

Apparent Color	SM 2120BM	ND	3.0	15	Color Units	12/06/17	12/06/17	1749135	
Odor Threshold	EPA 140.1-M	2	1	3	TON	12/06/17	12/06/17	1749135	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	570	5.0	1000	mg/L	12/13/17	12/15/17	1750083	
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ND Analyte NOT DETECTED at or above the reporting limit



December 15, 2017

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



LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 17L0582
Lab Number: I120805-01

Enclosed are results for sample(s) received 12/08/17 by Air Technology Laboratories. Samples were received intact and properly chilled. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

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

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson", is written over a horizontal line.

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
17L0582

2 of 4
1120805

I120805-01

SENDING LABORATORY:

Clinical Laboratory of San Bernardino
21881 Barton Road
Grand Terrace, CA 92313
Phone: 909.825.7693
Fax: 909.825.7696
Project Manager: Stu Styles

RECEIVING LABORATORY:

Air Technology Labs
18501 East Gale Avenue Suite 130
City of Industry, CA 91748
Phone : (626) 964-4032
Fax:

Please email results to Project Manager: Stu Styles

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

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

Water Trax Upload Client: [] Yes [x] No

Turn Around Time [] 10 Days [x] 5 Days [] Other ___ Days

Subcontract Comments:

Analysis		Comments
Sample ID: Reservoir Effluent Site #5 / 17L0582-02		Sampled: 12/06/17 08:00 PS Code: Water WTX ID:
Methane RSK175		Report in mg/L
Containers Supplied:		
40ml Amber Vial (B)	40ml Amber Vial (C)	

-1°C

Released By	12/08/17 07:45	Received By	12/8/17 8:30
m clark		Don Py-	
Released By	12/8/17 9:28	Received By	12/8/17 0928

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 17L0582
Date Received: 12/08/17
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	I120805-01			
Client Sample I.D.:	Reservoir Effluent Site #5/17L0582- 02			
Date/Time Sampled:	12/6/17 8:00			
Date/Time Analyzed:	12/14/17 11:45			
QC Batch No.:	171214GC8A1			
Analyst Initials:	AS			
Dilution Factor:	1.0			
ANALYTE	Result mg/L	RL mg/L		
Methane	0.32	0.0010		

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark Johnson
Operations Manager

Date 12-15-17

The cover letter is an integral part of this analytical report



QC Batch No.: 171214GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		12/14/17 11:04		12/14/17 11:18		12/14/17 11:31			
Analyst Initials:		AS		AS		AS			
Datafile:		14dec002		14dec003		14dec004			
Dilution Factor:		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%	108	70-130%	0.4	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: _____



Mark J. Johnson
Operations Manager

Date: 12-15-17

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



AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

[illegible]

Clinical Laboratory of San Bernardino, Inc.



28 December 2017

Clinical Lab No.: 17L1190

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

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

Enclosed are the results of the analyses for samples received at the laboratory on 12/13/17. Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPf Monthly Compliance / 2nd Week of Dec, 2017
Project Manager: Mark Andersen

Work Order: 17L1190
Received: 12/13/17 16:50
Reported: 12/28/17

Raw Water Site #1

17L1190-01 (Water)

Sample Date: 12/13/17 6:59 Sampler: DGM

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

Cl Res Total (Field)	Field	0		N/A	mg/L	12/13/17	12/13/17	1750120	
pH (Field)	Field	7.47		N/A	pH Units	12/13/17	12/13/17	1750120	
Temperature (Field)	Field	20.6		N/A	°C	12/13/17	12/13/17	1750120	

Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	12/13/17	12/14/17	1750116	
E. Coli	SM 9223	A		N/A	P/A	12/13/17	12/14/17	1750116	
Plate Count	SM9215B	19	1	500	CFU/ml	12/13/17	12/15/17	1750175	HT-08

General Physical Analyses

Apparent Color	SM 2120BM	10.0	3.0	15	Color Units	12/13/17	12/13/17	1750127	
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General Chemical Analyses

Hardness, Total (as CaCO ₃)	Calculated	390	9.1	N/A	mg/L	12/19/17	12/20/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	820	5.0	1000	mg/L	12/20/17	12/21/17	1751076	

Metals

Calcium (Ca)	EPA 200.7	100	2.0	N/A	mg/L	12/19/17	12/20/17	1751060	
Iron (Fe)	EPA 200.7	200	100	300	ug/L	12/18/17	12/18/17	1751030	
Magnesium (Mg)	EPA 200.7	33	1.0	N/A	mg/L	12/18/17	12/19/17	1751032	
Manganese (Mn)	EPA 200.7	170	20	50	ug/L	12/18/17	12/18/17	1751030	

Filter Effluent (Free Chlorine) Site #2

17L1190-02 (Water)

Sample Date: 12/13/17 6:45 Sampler: DGM

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

Cl Res Total (Field)	Field	5.4		N/A	mg/L	12/13/17	12/13/17	1750120	
pH (Field)	Field	7.46		N/A	pH Units	12/13/17	12/13/17	1750120	
Temperature (Field)	Field	21.2		N/A	°C	12/13/17	12/13/17	1750120	

Microbiology Analyses

Total Coliform	SM 9223	A		N/A	P/A	12/13/17	12/14/17	1750116	
E. Coli	SM 9223	A		N/A	P/A	12/13/17	12/14/17	1750116	
Plate Count	SM9215B	ND	1	500	CFU/ml	12/13/17	12/15/17	1750175	HT-08

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPf Monthly Compliance / 2nd Week of Dec, 2017
Project Manager: Mark Andersen

Work Order: 17L1190
Received: 12/13/17 16:50
Reported: 12/28/17

Filter Effluent (Total Chlorine) Site #3

17L1190-03 (Water)

Sample Date: 12/13/17 6:47 **Sampler:** DGM

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

Cl Res Total (Field)	Field	5.4		N/A	mg/L	12/13/17	12/13/17	1750120	
pH (Field)	Field	7.6		N/A	pH Units	12/13/17	12/13/17	1750120	
Temperature (Field)	Field	22.8		N/A	°C	12/13/17	12/13/17	1750120	

General Physical Analyses

Apparent Color	SM 2120BM	7.5	3.0	15	Color Units	12/13/17	12/13/17	1750127	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	12/18/17	12/18/17	1751030	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	12/18/17	12/18/17	1751030	

Zone #2 Site #6

17L1190-04 (Water)

Sample Date: 12/13/17 6:49 **Sampler:** DGM

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

Cl Res Total (Field)	Field	1.97		N/A	mg/L	12/13/17	12/13/17	1750120	
pH (Field)	Field	8.54		N/A	pH Units	12/13/17	12/13/17	1750120	
Temperature (Field)	Field	18.3		N/A	°C	12/13/17	12/13/17	1750120	

General Chemical Analyses

Hardness, Total (as CaCO3)	Calculated	110	6.6	N/A	mg/L	12/18/17	12/19/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	250	5.0	1000	mg/L	12/20/17	12/21/17	1751076	

Metals

Calcium (Ca)	EPA 200.7	24	1.0	N/A	mg/L	12/18/17	12/19/17	1751032	
Magnesium (Mg)	EPA 200.7	11	1.0	N/A	mg/L	12/18/17	12/19/17	1751032	

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPf Monthly Compliance / 2nd Week of Dec, 2017
Project Manager: Mark Andersen

Work Order: 17L1190
Received: 12/13/17 16:50
Reported: 12/28/17

Reservoir Effluent Site #5 **17L1190-05 (Water)** **Sample Date:** 12/13/17 6:53 **Sampler:** DGM

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

Cl Res Total (Field)	Field	3.51		N/A	mg/L	12/13/17	12/13/17	1750120	
pH (Field)	Field	7.83		N/A	pH Units	12/13/17	12/13/17	1750120	
Temperature (Field)	Field	20.2		N/A	°C	12/13/17	12/13/17	1750120	

General Physical Analyses

Odor Threshold	EPA 140.1-M	3	1	3	TON	12/13/17	12/13/17	1750127	
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General Chemical Analyses

Hardness, Total (as CaCO₃)	Calculated	260	6.6	N/A	mg/L	12/18/17	12/19/17	[CALC]	
Total Filterable Residue/TDS	SM 2540C	550	5.0	1000	mg/L	12/20/17	12/21/17	1751076	

Metals

Calcium (Ca)	EPA 200.7	66	1.0	N/A	mg/L	12/18/17	12/19/17	1751032	
Magnesium (Mg)	EPA 200.7	22	1.0	N/A	mg/L	12/18/17	12/19/17	1751032	

HT-08 Analysis performed outside of recommended 8 hour hold time but within required 24 hour hold time.

ND Analyte NOT DETECTED at or above the reporting limit



December 22, 2017

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



LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 17L1190
Lab Number: I121501-01/02

Enclosed are results for sample(s) received 12/15/17 by Air Technology Laboratories. Samples were received intact and properly chilled. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

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

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

Sincerely,

A handwritten signature in blue ink, appearing to read "M. Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

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

SUBCONTRACT ORDER
Clinical Laboratory of San Bernardino
17L1190

2 of 4
1121501

I121501-01/02

SENDING LABORATORY:

Clinical Laboratory of San Bernardino
21881 Barton Road
Grand Terrace, CA 92313
Phone: 909.825.7693
Fax: 909.825.7696
Project Manager: Stu Styles

RECEIVING LABORATORY:

Air Technology Labs
18501 East Gale Avenue Suite 130
City of Industry, CA 91748
Phone: (626) 964-4032
Fax:

Please email results to Project Manager: Stu Styles

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

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

Water Trax Upload Client: [] Yes [x] No

Turn Around Time [] 10 Days [x] 5 Days [] Other ___ Days

Subcontract Comments:

Analysis

Comments

Sample ID: Raw Water Site #1 / 17L1190-01

Sampled: 12/13/17 06:59 PS Code:
Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

Sample ID: Reservoir Effluent Site #5 / 17L1190-05

Sampled: 12/13/17 06:53 PS Code:
Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

Released By

Date / Time

Received By

Date / Time

Released By

Date / Time

Received By

Date / Time

12/14/17

16:00

12/15/17

8:00

12/15/17

12/15/17

0927

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 17L1190
Date Received: 12/15/17
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	I121501-01	I121501-02		
Client Sample I.D.:	Raw Water Site #1 / 17L1190-01	Reservoir Effluent Site #5 / 17L1190-05		
Date/Time Sampled:	12/13/17 6:58	12/13/17 6:53		
Date/Time Analyzed:	12/20/17 14:08	12/20/17 13:55		
QC Batch No.:	171220GC8A1	171220GC8A1		
Analyst Initials:	AS	AS		
Dilution Factor:	1.0	1.0		
ANALYTE	Result mg/L	RL mg/L	Result mg/L	RL mg/L
Methane	4.1	0.0010	0.47	0.0010

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
Mark Johnson
Operations Manager

Date 12/22/17

The cover letter is an integral part of this analytical report



QC Batch No.: 171220GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175


Lab No.:	Method Blank	LCS	LCSD						
Date/Time Analyzed:	12/20/17 9:03	12/20/17 9:16	12/20/17 13:16						
Analyst Initials:	AS	AS	AS						
Datafile:	20dec004	20dec005	20dec021						
Dilution Factor:	1.0	1.0	1.0						
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	92	70-130%	90	70-130%	2.6	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: _____


Mark J. Johnson
Operations Manager

Date: 12/22/17

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



AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client		City of Lomita		System Number		Analysis Requested									
Address		24373 Walnut Avenue Lomita, CA 91717		1910073											
Phone #		(310) 325-9830		Destination Laboratory											
Fax #		(310) 325-3627		[X] Clinical Laboratory											
Project		Standard Analysis		RWQCB Compliance											
Sub Project		CW/PF Monthly Compliance Samples; 2nd week of Dec., 2017		YES ELAP #											
Comments				1088											
Sampled by		DGM													
Date	Time	Sample Identification		Matrix	Type	Preserv	Temp.	pH	Total Chlorine						
12/13/2017	0658	Raw Water Site #1		GW	1W	N/A	20.6	7.47	0						
12/13/2017	0659	Raw Water Site #1		GW	1W	1, 2, 7									
12/13/2017	0645	Filter Effluent (Free Chlorine) Site#2		DW	1W	1, 7	21.2	7.46	5.40						
12/13/2017	0647	Filter Effluent (Total Chlorine) Site#3		DW	1W	N/A	22.8	7.60	5.40						
12/13/2017	0649	Zone #2 Site #6		DW	1D	N/A	18.3	8.54	1.97						
12/13/2017	0653	Reservoir Effluent Site #5		DW	1D	N/A	20.2	7.83	3.51						
12/13/2017	0653	Reservoir Effluent Site #5		DW	1D	2, 7									
Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCl (3) HNO ₃ (4) NH ₄ Cl (5) H ₂ SO ₄ (6) Na ₂ SO ₃ (7) Cold (8) Other:				Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground Water, A-Air Routine, 2-Repeat, 3-Replacement, 4-Special W-Well D-Dist.											
Relinquished By (Sign)		Print Name / Company		Date / Time		Received By (Sign)		Print Name / Company							
Patrick McCue		City of Lomita, CA		12/13/2017 12:00		[Signature]		[Signature]							
[Signature]		S. Lucena/awb		12-13-17/4:50		[Signature]		[Signature]							
Comments:				Samples received: (X) On ice () Intact		Custody seals Temp		6.1 () F							

Clinical Laboratory of San Bernardino, Inc.



04 January 2018

Clinical Lab No.: 17L1855

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

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

Enclosed are the results of the analyses for samples received at the laboratory on 12/20/17. Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPf 3rd Week of Dec, 2017 Compliance Sampling
Project Manager: Mark Andersen
Work Order: 17L1855
Received: 12/20/17 16:00
Reported: 01/04/18

Reservoir Influent Site #3 **17L1855-01 (Water)** **Sample Date:** 12/20/17 8:48 **Sampler:** Patrick McCue

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

Cl Res Total (Field)	Field	4.325		N/A	mg/L	12/20/17	12/20/17	1751137	
pH (Field)	Field	7.56		N/A	pH Units	12/20/17	12/20/17	1751137	
Temperature (Field)	Field	21.2		N/A	°C	12/20/17	12/20/17	1751137	

General Physical Analyses

Apparent Color	SM 2120BM	ND	3.0	15	Color Units	12/20/17	12/20/17	1751107	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	01/03/18	01/03/18	1801044	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	01/03/18	01/03/18	1801044	

Reservoir Effluent Site #5 **17L1855-02 (Water)** **Sample Date:** 12/20/17 8:52 **Sampler:** Patrick McCue

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

Cl Res Total (Field)	Field	3.75		N/A	mg/L	12/20/17	12/20/17	1751137	
pH (Field)	Field	7.78		N/A	pH Units	12/20/17	12/20/17	1751137	
Temperature (Field)	Field	19.5		N/A	°C	12/20/17	12/20/17	1751137	

General Physical Analyses

Apparent Color	SM 2120BM	ND	3.0	15	Color Units	12/20/17	12/20/17	1751107	
Odor Threshold	EPA 140.1-M	2	1	3	TON	12/20/17	12/20/17	1751107	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	560	5.0	1000	mg/L	12/27/17	12/28/17	1752064	
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ND Analyte NOT DETECTED at or above the reporting limit



January 2, 2018

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



LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 17L1855
Lab Number: I122201-01

Enclosed are results for sample(s) received 12/22/17 by Air Technology Laboratories. Samples were received intact and properly chilled. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

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

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

Sincerely,

A handwritten signature in blue ink, appearing to read "M. Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

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

SUBCONTRACT ORDER
Clinical Laboratory of San Bernardino
17L1855

2 of 4
I122201

I122201-01

SENDING LABORATORY:

Clinical Laboratory of San Bernardino
21881 Barton Road
Grand Terrace, CA 92313
Phone: 909.825.7693
Fax: 909.825.7696
Project Manager: Stu Styles

RECEIVING LABORATORY:

Air Technology Labs
18501 East Gale Avenue Suite 130
City of Industry, CA 91748
Phone: (626) 964-4032
Fax:

Please email results to Project Manager: Stu Styles

☐ glaubig@clinical-lab.com ☐ ybarra@clinical-lab.com ☒ styles@clinical-lab.com ☐ nelson@clinical-lab.com

California EDT transfer those samples with PS codes provided ☐ Yes ☒ No

Water Trax Upload Client: ☐ Yes ☒ No

Turn Around Time ☐ 10 Days ☒ 5 Days ☐ Other ___ Days

Subcontract Comments:

Analysis	Comments
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Sample ID: Reservoir Effluent Site #5 / 17L1855-02

Sampled: 12/20/17 08:52 PS Code:

Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

Released By *BSI sty* 12/22/17 07:45 MCL

Received By *Don Jy* 12/22/17 8:15

Released By *MCL* 12/22/17 9:20

Received By *Don Jy* 12/22/17 0920

-1°C

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 17L1855
Date Received: 12/22/17
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	I122201-01			
Client Sample I.D.:	Reservoir Effluent Site #5/17L1855- 02			
Date/Time Sampled:	12/20/17 8:52			
Date/Time Analyzed:	12/29/17 8:57			
QC Batch No.:	171229GC8A1			
Analyst Initials:	AS			
Dilution Factor:	1.0			
ANALYTE	Result mg/L	RL mg/L		
Methane	0.43	0.0010		

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 12/18

The cover letter is an integral part of this analytical report



QC Batch No.: 171229GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		12/29/17 8:18		12/29/17 8:44		12/29/17 11:45			
Analyst Initials:		AS		AS		AS			
Datafile:		29dec001		29dec003		29dec017			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	103	70-130%	96	70-130%	6.9	<30

PQL = Practical Quantitation Limit


ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: _____


Mark J. Johnson
Operations Manager

Date: _____


1/2/18

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



AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

$$\frac{M}{\phi}$$

17.1856

"Your Water and Wastewater Analysis Solution"

Clinical Laboratory of San Bernardino, Inc.



09 January 2018

Clinical Lab No.: 17L2152

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

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

Enclosed are the results of the analyses for samples received at the laboratory on 12/27/17 . Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: CWPf 4th Week of Dec, 2017 Compliance Sampling
Project Manager: Mark Andersen
Work Order: 17L2152
Received: 12/27/17 15:15
Reported: 01/09/18

Reservoir Influent Site #3 **17L2152-01 (Water)** **Sample Date:** 12/27/17 9:18 **Sampler:** Patrick McCue

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

Cl Res Total (Field)	Field	5.4		N/A	mg/L	12/27/17	12/27/17	1752088	
pH (Field)	Field	7.53		N/A	pH Units	12/27/17	12/27/17	1752088	
Temperature (Field)	Field	20.6		N/A	°C	12/27/17	12/27/17	1752088	

General Physical Analyses

Apparent Color	SM 2120BM	5.0	3.0	15	Color Units	12/27/17	12/27/17	1752112	
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Metals

Iron (Fe)	EPA 200.7	ND	100	300	ug/L	01/08/18	01/08/18	1802003	
Manganese (Mn)	EPA 200.7	ND	20	50	ug/L	01/08/18	01/08/18	1802003	

Reservoir Effluent Site #5 **17L2152-02 (Water)** **Sample Date:** 12/27/17 9:22 **Sampler:** Patrick McCue

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

Cl Res Total (Field)	Field	3.31		N/A	mg/L	12/27/17	12/27/17	1752088	
pH (Field)	Field	7.71		N/A	pH Units	12/27/17	12/27/17	1752088	
Temperature (Field)	Field	18.9		N/A	°C	12/27/17	12/27/17	1752088	

General Physical Analyses

Apparent Color	SM 2120BM	ND	3.0	15	Color Units	12/27/17	12/27/17	1752112	
Odor Threshold	EPA 140.1-M	2	1	3	TON	12/27/17	12/27/17	1752112	

General Chemical Analyses

Total Filterable Residue/TDS	SM 2540C	550	5.0	1000	mg/L	01/03/18	01/05/18	1801054	
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ND Analyte NOT DETECTED at or above the reporting limit



January 3, 2018

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



LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 17L2152
Lab Number: I122802-01

Enclosed are results for sample(s) received 12/28/17 by Air Technology Laboratories. Samples were received intact and properly chilled. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

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

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

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

SUBCONTRACT ORDER
Clinical Laboratory of San Bernardino
17L2152

2 of 4
1122802

I122802-01

SENDING LABORATORY:

Clinical Laboratory of San Bernardino
21881 Barton Road
Grand Terrace, CA 92313
Phone: 909.825.7693
Fax: 909.825.7696
Project Manager: Stu Styles

RECEIVING LABORATORY:

Air Technology Labs
18501 East Gale Avenue Suite 130
City of Industry, CA 91748
Phone : (626) 964-4032
Fax:

Please email results to Project Manager: Stu Styles

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

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

Water Trax Upload Client: [] Yes [x] No

Turn Around Time [] 10 Days [x] 5 Days [] Other ___ Days

Subcontract Comments:

Analysis

Comments

Sample ID: Reservoir Effluent Site #5 / 17L2152-02

Sampled: 12/27/17 09:22 PS Code:

Water

WTX ID:

Methane RSK175

Report in mg/L

Containers Supplied:

40ml Amber Vial (B)

40ml Amber Vial (C)

60°C

Released By *BJ* Date / Time 12/28/17 07:30

Received By *[Signature]* Date / Time 12/28/17 843

Released By *[Signature]* Date / Time 12/28/17

Received By *[Signature]* Date / Time 12/28/17 0945

Client: Clinical Laboratory
Attn: Stu Styles
Project Name: NA
Project No.: 17L2152
Date Received: 12/28/17
Matrix: Water
Reporting Units: mg/L

RSK175

Lab No.:	I122802-01			
Client Sample I.D.:	Reservoir Effluent Site #5/17L2152- 02			
Date/Time Sampled:	12/27/17 9:22			
Date/Time Analyzed:	12/29/17 11:32			
QC Batch No.:	171229GC8A1			
Analyst Initials:	AS			
Dilution Factor:	1.0			
ANALYTE	Result mg/L	RL mg/L		
Methane	0.49	0.0010		

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
Mark Johnson
Operations Manager

Date 1/3/18

The cover letter is an integral part of this analytical report



QC Batch No.: 171229GC8A1
Matrix: Water
Units: mg/L

QC for Dissolved Gases by EPA Procedure RSKSOP-175

Lab No.:		Method Blank		LCS		LCSD			
Date/Time Analyzed:		12/29/17 8:18		12/29/17 8:44		12/29/17 11:45			
Analyst Initials:		AS		AS		AS			
Datafile:		29dec001		29dec003		29dec017			
Dilution Factor:		1.0		1.0		1.0			
ANALYTE	PQL	RL	Results	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Methane	0.0010	0.0010	ND	103	70-130%	96	70-130%	6.9	<30

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL).

RL = PQL X Dilution Factor

Reviewed/Approved By: _____


Mark J. Johnson
Operations Manager

Date: _____

1/3/18

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



AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

[illegible]

Clinical Laboratory of San Bernardino, Inc.



18 December 2017

Clinical Lab No.: 17L0485

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

Project Name: Standard Analysis
Sub Project: Hexavalent Chromium 6 Sample

Enclosed are the results of the analyses for samples received at the laboratory on 12/06/17. Samples were received within temperature range, in correct containers and preservation.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Stu Styles', with a stylized flourish at the end.

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.



Lomita, City of
24373 Walnut Avenue
Lomita CA, 91717

Project: Standard Analysis
Sub Project: Hexavalent Chromium 6 Sample
Project Manager: Mark Andersen

Work Order: 17L0485
Received: 12/06/17 16:30
Reported: 12/18/17

Well #5 **17L0485-01 (Water)** **Sample Date:** 12/06/17 7:38 **Sampler:** Not Listed

Analyte	Method	Result	Rep. Limit	MCL	Units	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	------------	-----	-------	----------	----------	-------	-----------

Field Analyses

Cl Res Total (Field)	Field	0		N/A	mg/L	12/06/17	12/06/17	1749108	
pH (Field)	Field	7.34		N/A	pH Units	12/06/17	12/06/17	1749108	
Temperature (Field)	Field	21.1		N/A	°C	12/06/17	12/06/17	1749108	

Metals

Chromium (+6)	EPA 218.6	ND	1.0	N/A	ug/L	12/06/17	12/07/17	1749024	
ND	Analyte NOT DETECTED at or above the reporting limit								

Clinical Laboratory of San Bernardino, Inc.

EDT Transfer Confirmation 1



Work Order: 17L0485

Report Date: 12/18/2017

Analyzing Lab: Clinical Laboratory of San Bernardino, Inc. ELAP 1088

Page 1 of 1

LOMITA-CITY, WATER DEPT.

User ID: 4TH

System: 1910073

WELL 05

Station No.: 1910073-003

Sampled: 171206 07:38

CHROMIUM (HEXAVALENT)

Result: ND

Units: UG/L

Entry No.: 01032

Analyzed: 171207

17LD485

Client		City of Lomita		System Number		Analysis Requested										
Address		24373 Walnut Avenue Lomita, CA 91717		1910073												
Phone #		(310) 325-9830		Destination Laboratory												
Fax #		(310) 325-3627		[X] Clinical Laboratory												
Project				RWQCB Compliance												
Sub Project		Hexavalent Chromium 6 sample		ELAP #												
Comments																
Sampled by																
Date	Time	Sample Identification		Matrix	Type	Preserv	Total Chlorine								Comments / P.S. Codes	
12/6/2017	0738	Well #5		DW	1D	N/A	Ø	X								ph 7.34 temp 21.1°
																ph temp
Preservatives: (1) Na ₂ S ₂ O ₃ (2) HCl (3) HNO ₃ (4) NH ₄ Cl (5) H ₂ SO ₄ (6) Na ₂ SO ₃ (7) Cold (8) Other:				Matrix: DW-Drinking Water, WW-Waste Water, SW-Storm Water, GW-Ground Water, A-Air Routine, 2-Repeat, 3-Repeat, 4-Special W-Well D-Dist.										Type- 1-		
Relinquished By (Sign)		Print Name / Company		Date / Time		Received By (Sign)		Print Name / Company								
Patrick McCue		City of Lomita		12/6/17 12:00		[Signature]		J. Lucero/CLSB								
[Signature]		J. Lucero/CLSB		12-6-17 14:30		[Signature]		J. Lucero/CLSB								
Comments:				Samples received:		San ice () Intact () Custody seals Temp () F () C										
Shipped Via		Fed X Golden State UPS Client Other		Page 1 of 1												

APPENDIX B

METHANE MONITORING LOG



CITY OF LOMITA
PUBLIC WORKS DEPARTMENT

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

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

ND- Non Detect
CH4- Methane
Oxy- Oxygen
Day Off/Holiday- Red

APPENDIX C

NITRIFICATION MONITORING DATA SUMMARY

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

#	Code	Sample ID	Location	Sample Date	Temp	pH	Total Chlorine	Free Chlorine	Total Ammonia	Free Ammonia	Nitrite ³	Nitrate	Coliform ²	HPC	Zone	Comments
Units/Others →				MM/DD/YYYY	°C		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	P/A	CFU/ml		
1	D	S13-003	1948 W 252nd St	12/6/2017	17.9	7.71	2.90	0.05	0.64	0.00	0.005	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	12/6/2017	18.6	7.57	1.23	0.06	0.28	0.15	0.214	ND	A	3	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	12/6/2017	18.9	7.67	3.10	0.10	0.57	0.00	0.020	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	12/6/2017	14.5	8.61	1.97	0.09	0.48	0.09	0.025	0.44	A	ND	1	Well/MWD Blend
5	D		Reservoir SP5	12/6/2017	19.4	7.67	3.50	0.08	0.72	0.00	0.004	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	12/6/2017	16.8	8.60	2.40	0.09	0.52	0.00	0.008	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	12/6/2017	16.2	8.75	2.40	0.00	0.49	0.00	0.013	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	12/6/2017	18.5	8.65	2.40	0.10	0.51	0.01	0.007	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St	12/13/2017	19.4	7.84	3.20	0.02	0.98	0.11	0.000	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	12/13/2017	20.1	7.67	1.37	0.06	0.42	0.30	0.078	0.4	A	ND	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	12/13/2017	18.7	7.83	3.00	0.09	0.96	0.17	0.026	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	12/13/2017	20.7	8.34	1.83	0.14	0.49	0.02	0.022	0.44	A	ND	1	Well/MWD Blend
5	D		Reservoir SP5	12/13/2017	20.2	7.83	3.51	0.05	1.16	0.15	0.000	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	12/13/2017	17.2	8.59	2.12	0.04	0.47	0.00	0.000	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	12/13/2017	16.8	8.58	1.89	0.04	0.48	0.01	0.000	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	12/13/2017	16.6	8.60	2.20	0.07	0.42	0.00	0.000	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St	12/20/2017	17.3	7.98	3.20	0.19	1.00	0.03	0.011	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	12/20/2017	18.2	7.72	1.50	0.01	0.44	0.25	0.056	0.4	A	ND	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	12/20/2017	17.9	7.87	3.40	0.11	0.98	0.21	0.023	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	12/20/2017	17.8	8.52	2.04	0.00	0.48	0.03	0.011	0.44	A	ND	1	Well/MWD Blend
5	D		Reservoir SP5	12/20/2017	19.5	7.78	3.75	0.08	1.00	0.18	0.012	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	12/20/2017	16.5	6.30	2.40	0.03	0.49	0.04	0.007	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	12/20/2017	16.6	8.34	2.50	0.08	0.58	0.01	0.010	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	12/20/2017	17.1	8.56	2.50	0.05	0.50	0.00	0.004	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St	12/27/2017	17	7.8	2.9	0.1	0.80	0.15	0.013	ND	A	ND	1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave	12/27/2017	17.6	7.62	1.12	0.05	0.32	0.15	0.072	ND	A	ND	1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave	12/27/2017	16.2	7.77	2.90	0.14	0.70	0.14	0.030	ND	A	ND	1	Well/MWD Blend
4	D	A	2052 Dawn St	12/27/2017	14.2	8.42	2.06	0.20	0.51	0.06	0.015	0.46	A	ND	1	Well/MWD Blend
5	D		Reservoir SP5	12/27/2017	18.9	7.71	3.31	0.04	0.78	0.02	0.005	ND	A	ND	1	Well/MWD Blend
6	D	S13-001	1912 W 259th St	12/27/2017	15.6	8.39	2.30	0.17	0.48	0.00	0.006	ND	A	ND	2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave	12/27/2017	16.0	8.25	2.20	0.12	0.47	0.11	0.010	ND	A	ND	3	MWD Only
8	D	S13-005	2500 PCH	12/27/2017	16.0	8.45	2.30	0.05	0.48	0.00	0.007	ND	A	ND	2	MWD Only
1	D	S13-003	1948 W 252nd St												1	Well/MWD Blend
2	D	S13-004	24632 S Moon Ave												1	Well/MWD Blend
3	D	S13-008	25417 Pennsylvania Ave												1	Well/MWD Blend
4	D	A	2052 Dawn St												1	Well/MWD Blend
5	D		Reservoir												1	Well/MWD Blend
6	D	S13-001	1912 W 259th St												2	MWD Only
7	D	S13-002	26314 S Monte Vista Ave												3	MWD Only
8	D	S13-005	2500 PCH												2	MWD Only

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 trends of Nitrite in Zone I, in accordance with the Nitrification Monitoring Plan. Due to elevated reads additional hydrant flushing has been implemented.