

Crestline Sanitation District
2016
Annual Report



Los Flores Recycled
Water Project

CRESTLINE SANITATION DISTRICT ANNUAL REPORT

Monitoring and Reporting Program: 6-94-57

WDID Number: 6B360106001

ANNUAL REPORT

Year: 2016

The data in this report has been reviewed for violations of wastewater discharge requirements by the Operations Manager and District Manager.

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CRESTLINE SANITATION DISTRICT ANNUAL REPORT

Table of Contents

Treatment Plant Effluent Monitoring	Page
District Summation	4
Treatment Facility Total Volume Flows	5
Treatment Facility Maximum Instantaneous Flow Rates	6
Treatment Facility Average Flow Rates	7
Graph - Total Volume Flows	8
Graph - Maximum Instantaneous Flow Rates	9
Graph - Average Flow Rates	10
Effluent Monitoring - Treatment Facility	11
Graph - Treatment Facility - Total Coliform	12
Graph - Treatment Facility - Chlorine Residual	13
Effluent Monitoring - Final Discharge	
District Final Effluent - Lab Monitoring Data (Monthly Data)	14
District Final Effluent - Lab Monitoring Data (Semiannual & Annual Data)	15
Graph - District Final Effluent (Total Coliform)	16
Graph - District Final Effluent (Chlorine Residual)	17
Graph - District Final Effluent (Settleable Solids)	18
Graph - District Final Effluent (Dissolved Oxygen)	19
Graph - District Final Effluent (pH)	20
Graph - District Final Effluent (BOD)	21
Graph - District Final Effluent (COD)	22
Graph - District Final Effluent (MBAS)	23
Graph - District Final Effluent (Oil & Grease)	24
Graph - District Final Effluent (TKN)	25
Graph - District Final Effluent (NO3-N)	26
Graph - District Final Effluent (NH3-N)	27
Graph - District Final Effluent (TDS)	28
Graph - District Final Effluent (Chloride)	29
Graph - District Final Effluent (Sodium)	30
Graph - District Final Effluent (Sulfate)	31
Graph - District Final Effluent (Boron)	32
Graph - District Final Effluent (Fluoride)	33
Sludge Monitoring	
Sludge Generation and Disposal Data	34
Graph - Sludge Generation per month	35
Discharge Site - Ground Water Monitoring Wells	
Monitoring Wells Site Map	36
Monitoring Well 1 - Lab Data (Background Well)	37
Monitoring Well 2 - Lab Data	38
Monitoring Well 3 - Lab Data	39
Monitoring Well 4 - Lab Data	40
Monitoring Wells - Lab Data (Annual Testing)	41

Discharge Site - Ground Water Monitoring Wells (con's)		
Graph - All Monitoring Wells - Results	(Sulfate)	42
Graph - All Monitoring Wells - Results	(Sodium)	43
Graph - All Monitoring Wells - Results	(MBAS)	44
Graph - All Monitoring Wells - Results	(Chloride)	45
Graph - All Monitoring Wells - Results	(TDS)	46
Graph - All Monitoring Wells - Results	(TKN)	47
Graph - All Monitoring Wells - Results	(NH3-N)	48
Graph - All Monitoring Wells - Results	(NO3-N)	49
Graph - All Monitoring Wells - Results	(Ground Water Level)	50
Supply Water Monitoring		
Report - Supply Water Samples - March		51
Graph - Supply Water Samples - March		52
Report - Supply Water Samples - September		53
Graph - Supply Water Samples - September		54
Violations		
Final Effluent Disposal Site Constituent Violations		55
Graph – Constituent Violations		56
Treatment Facility Flow Violations		57
Graph - Total Volume Flow Violations		58
Graph – Instantaneous Flow Violations		59
Appendix		
Final Discharge Monitoring (Annual Samples)		Appendix "A"
Discharge Site - Ground Water Monitoring Wells (Annual Samples)		Appendix "B"

**Crestline Sanitation District
Annual Report
Summation
2016**

Crestline Sanitation District collected, treated and discharged 188.03 million gallons of wastewater in 2016. We had only one violation in 2016 which was attributed to a large amount of rain in the month of December. Rainfall recorded at Huston Creek Treatment plant for the calendar year of 2016 was 30.68 inches in which 10.34 inches occurred in the last 15 days of December.

Throughout 2016 the Districts' Maintenance Crew systematically televised 9.1 miles of pipe. During 2016 the District Hydroed 22.5 miles of pipeline exceeding the Sanitary Sewer Management Plan (SSMP) mark of 15.2 miles for the year. The District also contracted with Sancon Technologies Inc. to slip line specific problem areas found during the systematic televising, Sancon completed 3972 feet of slip lining.

In 2016, Dudek Engineering & Environmental was contracted to complete a Title 22 Report enabling the Crestline Sanitation District to sell its Disinfected Secondary Effluent for the purposes of Construction Water to Skanska for the *HWY 138 Realignment Project*. Skanska began the project November 14th which complies with the Governor's Order to utilize recycled water for construction projects during this time of severe drought.

An Annual Audit of the District was performed in 2016 by Smith Marion & CO. This accounting firm did a thorough job finding Crestline Sanitation's records to be well prepared, which allowed the audit to be completed in a timely manner and concluded with no findings.

The State Water Resources Control Board Enforcement Division performed an Audit on the District's SSMP and no violations were incurred. Scheduled maintenance programs and inspections were performed routinely on the Districts' Lift Stations. Manhole, Waterway and Outfall inspections were carried out after all rain events to comply with our SSMP protocols

Crestline Sanitation District has continued to maintain a zero injury safety program spanning two years.

CRESTLINE SANITATION DISTRICT

ANNUAL REPORT

Treatment Facility Total Volume Flows

YEAR: **2016**

Site	Huston Plant	Seeley Plant	Cleghorn Plant	Las Flores	Las Flores Ponds	
Readings	daily	daily	daily	daily	daily	monthly
Violations						
Design limits	0.7 mg/d design	0.5 mg/d design	0.2 mg/d design			
	total volume month	total volume month	total volume month	total volume to irrigation	total volume to ponds	free board
All flow rates in million gallons						feet
	Huston Creek	Seeley Creek	Cleghorn	District Effluent	District Effluent	Flow to ponds
JANUARY	11.06	6.10	0.151	19.70	0.00	empty
FEBRUARY	9.84	6.02	0.155	18.37	0.00	empty
MARCH	11.90	5.90	0.188	18.65	0.00	empty
APRIL	10.70	4.93	0.130	16.00	0.00	empty
MAY	9.94	4.68	0.194	15.64	0.00	empty
JUNE	9.23	3.79	0.280	13.68	0.00	empty
JULY	9.58	3.55	0.418	14.47	0.00	empty
AUGUST	9.12	3.20	0.121	13.11	0.00	empty
SEPTEMBER	8.88	3.13	0.164	13.01	0.00	empty
OCTOBER	9.47	3.99	0.105	13.34	0.00	empty
NOVEMBER	9.54	3.42	0.087	13.49	0.00	empty
DECEMBER	12.04	5.55	0.218	18.58	0.00	empty
2016 Treatment Facility Total Volume Flow						
Totals	121.28	54.23	2.21	188.03	0.00	

* Las Flores Total flows are represented by the addition of the Huston Creek, Seeley Creek, Cleghorn and Pilot Rock plant flow as measured as the flow discharges to the district outfall.

CRESTLINE SANITATION DISTRICT

ANNUAL REPORT

Treatment Facility Maximum Instantaneous Flow Rates

Year: **2016**

Site	Huston Creek	Seeley Creek	Cleghorn	Las Flores	Las Flores
Reading	daily	daily	daily	daily	daily
Violations					
Design limits	2.5 mg maximum	1.0 mg maximum	0.4 mg maximum		
	max flow rate month	max flow rate month	max flow rate month	max flow rate month	max flow rate month
All flow rates in million gallons					
	Huston	Seeley	Cleghorn	District Effluent	Flow to ponds
JANUARY	1.480	0.620	0.300	2.920	empty
FEBRUARY	0.990	0.570	0.200	1.430	empty
MARCH	1.160	0.450	0.180	1.560	empty
APRIL	1.160	0.360	0.344	1.125	empty
MAY	0.645	0.737	0.094	1.040	empty
JUNE	0.620	0.305	0.240	0.950	empty
JULY	0.630	0.315	0.184	1.120	empty
AUGUST	0.570	0.330	0.150	0.930	empty
SEPTEMBER	0.720	0.280	0.122	1.080	empty
OCTOBER	0.860	0.260	0.170	1.060	empty
NOVEMBER	0.660	0.340	0.085	1.060	empty
DECEMBER	1.450	0.640	0.150	2.040	empty
2016 Treatment Facility Maximum Instantaneous Flow Rate					
Maximum	1.480	0.737	0.344	2.920	

CRESTLINE SANITATION DISTRICT

ANNUAL REPORT

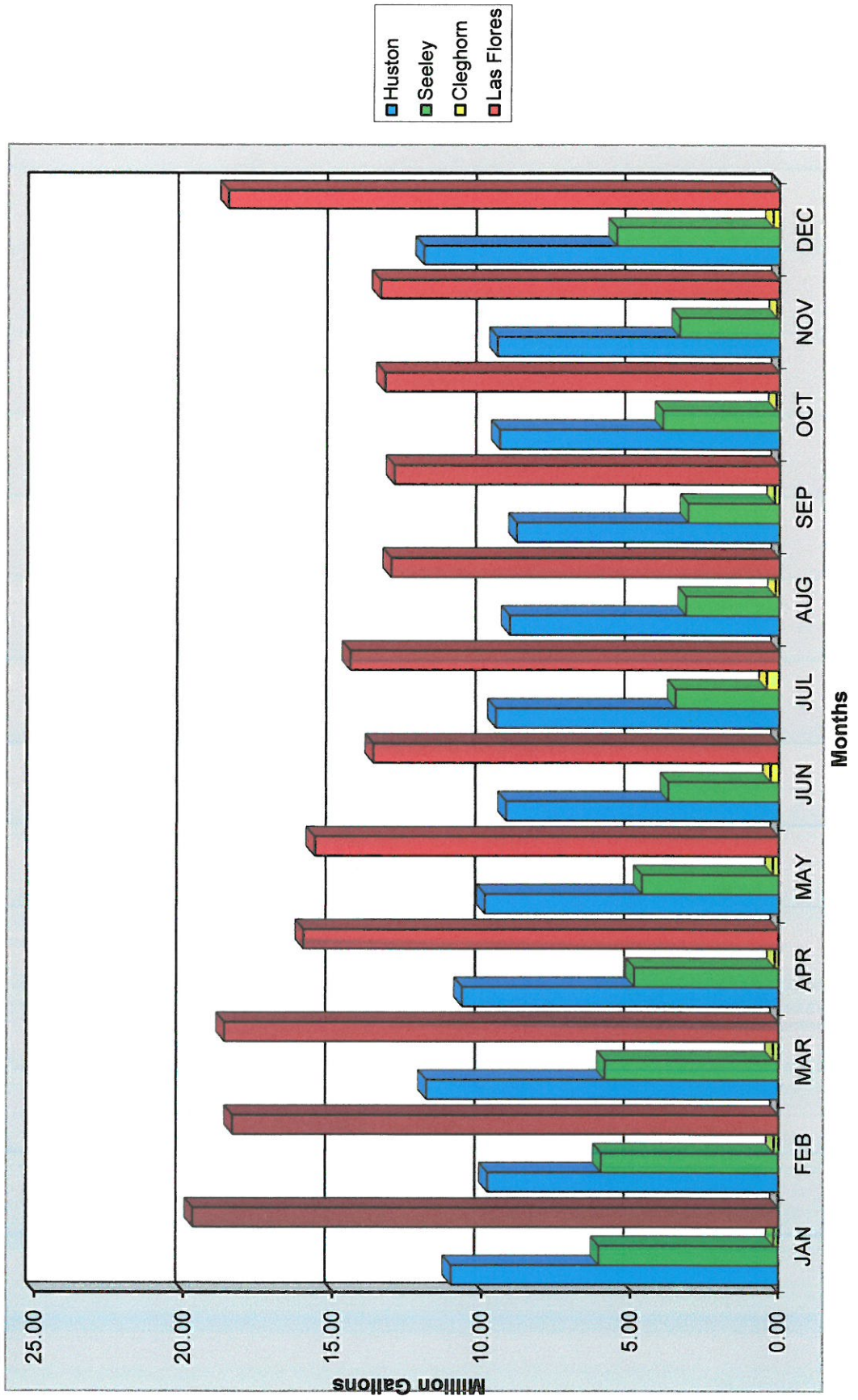
Treatment Facility Average Flow Rates

Year: **2016**

Site	Huston Creek	Seeley Creek	Cleghorn	Las Flores	Las Flores
Readings	daily	daily	daily	daily	daily
Violations					
Design limits	0.7 mg/d average	0.5 mg/d average	0.2 mg/d average		
	average flow month	average flow month	average flow month	average flow month	average flow month
All flows in million gallons per day					
	Huston	Seeley	Cleghorn	District Effluent	Flow to ponds
JANUARY	0.357	0.197	0.005	0.635	empty
FEBRUARY	0.390	0.208	0.005	0.633	empty
MARCH	0.384	0.190	0.006	0.602	empty
APRIL	0.357	0.164	0.004	0.533	empty
MAY	0.321	0.151	0.006	0.504	empty
JUNE	0.308	0.126	0.009	0.456	empty
JULY	0.309	0.114	0.013	0.467	empty
AUGUST	0.294	0.103	0.004	0.423	empty
SEPTEMBER	0.296	0.104	0.005	0.434	empty
OCTOBER	0.305	0.129	0.003	0.430	empty
NOVEMBER	0.318	0.114	0.003	0.450	empty
DECEMBER	0.388	0.179	0.007	0.599	empty
2016 Treatment Facility Average Flow Rate					
Average	0.336	0.148	0.006	0.514	

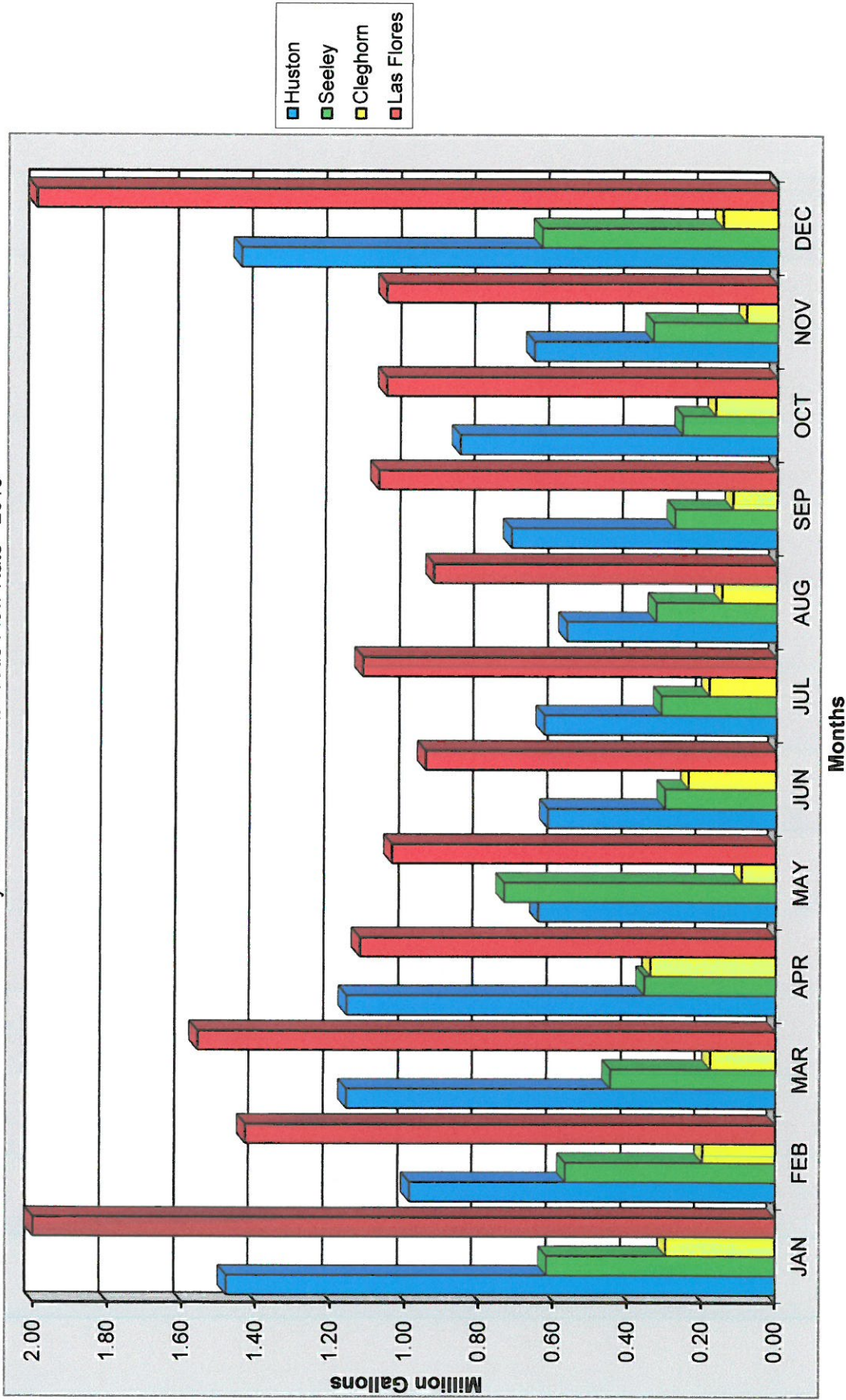
CRESTLINE SANITATION DISTRICT

Treatment Facility Total Volume Flows - 2016



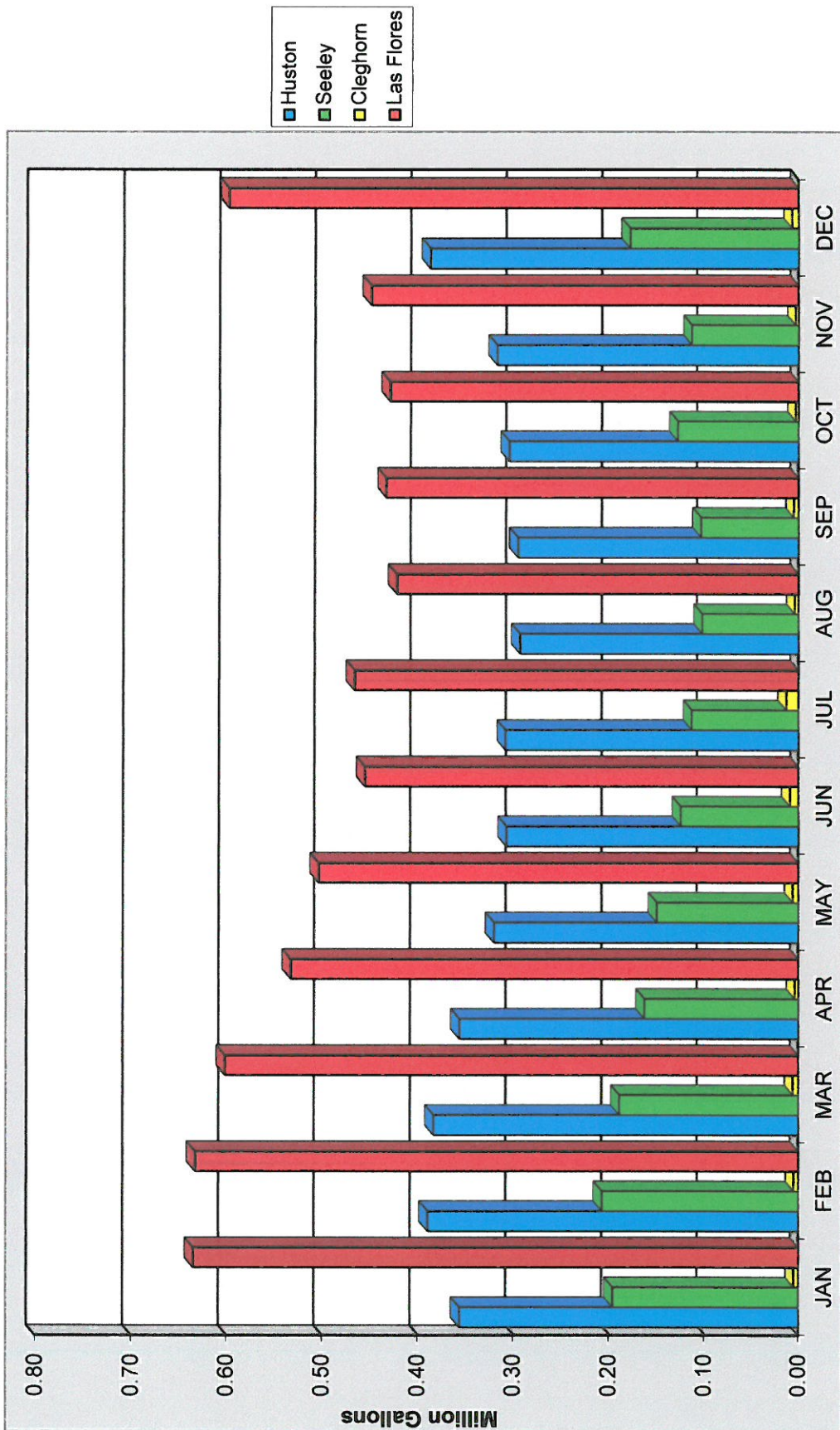
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Treatment Facility Maximum Instantaneous Flow Rate - 2016



CRESTLINE SANITATION DISTRICT

Treatment Facility Average Flow Rates - 2016



CRESTLINE SANITATION DISTRICT
ANNUAL REPORT
Effluent Monitoring - Treatment Facilities
Monthly Median / Averages

Year: **2016**

Site	Huston Creek			Seeley Creek			Cleghorn		
	Sample	Frequency	Requirement	Sample	Frequency	Requirement	Sample	Frequency	Requirement
	Disinfected Final Effluent	daily	M	Disinfected Final Effluent	daily	M	Disinfected Final Effluent	daily	M
	2 / week			2 / week			2 / week		
	23 / 100 ml *			23 / 100 ml *			23 / 100 ml *		
	D			D			D		
	Violations								
	Chlorine Residual	mg/l		Chlorine Residual	mg/l		Chlorine Residual	mg/l	
Test	Total Coliform	MPN		Total Coliform	MPN		Total Coliform	MPN	
month									
JANUARY	2	15.7		2	6.7		2	14.6	
FEBRUARY	2	14.0		2	8.7		2	12.0	
MARCH	2	15.5		2	7.8		2	12.0	
APRIL	2	17.9		2	10.8		2	13.7	
MAY	2	17.8		2	11.5		2	7.8	
JUNE	2	16.4		2	11.6		2	6.6	
JULY	2	17.1		2	10.3		2	7.0	
AUGUST	2	16.3		2	9.2		2	5.3	
SEPTEMBER	2	18.2		2	11.4		2	4.7	
OCTOBER	2	19.0		2	9.6		2	9.2	
NOVEMBER	2	18.9		2	8.8		2	7.9	
DECEMBER	2	16.9		2	10.5		2	10.0	

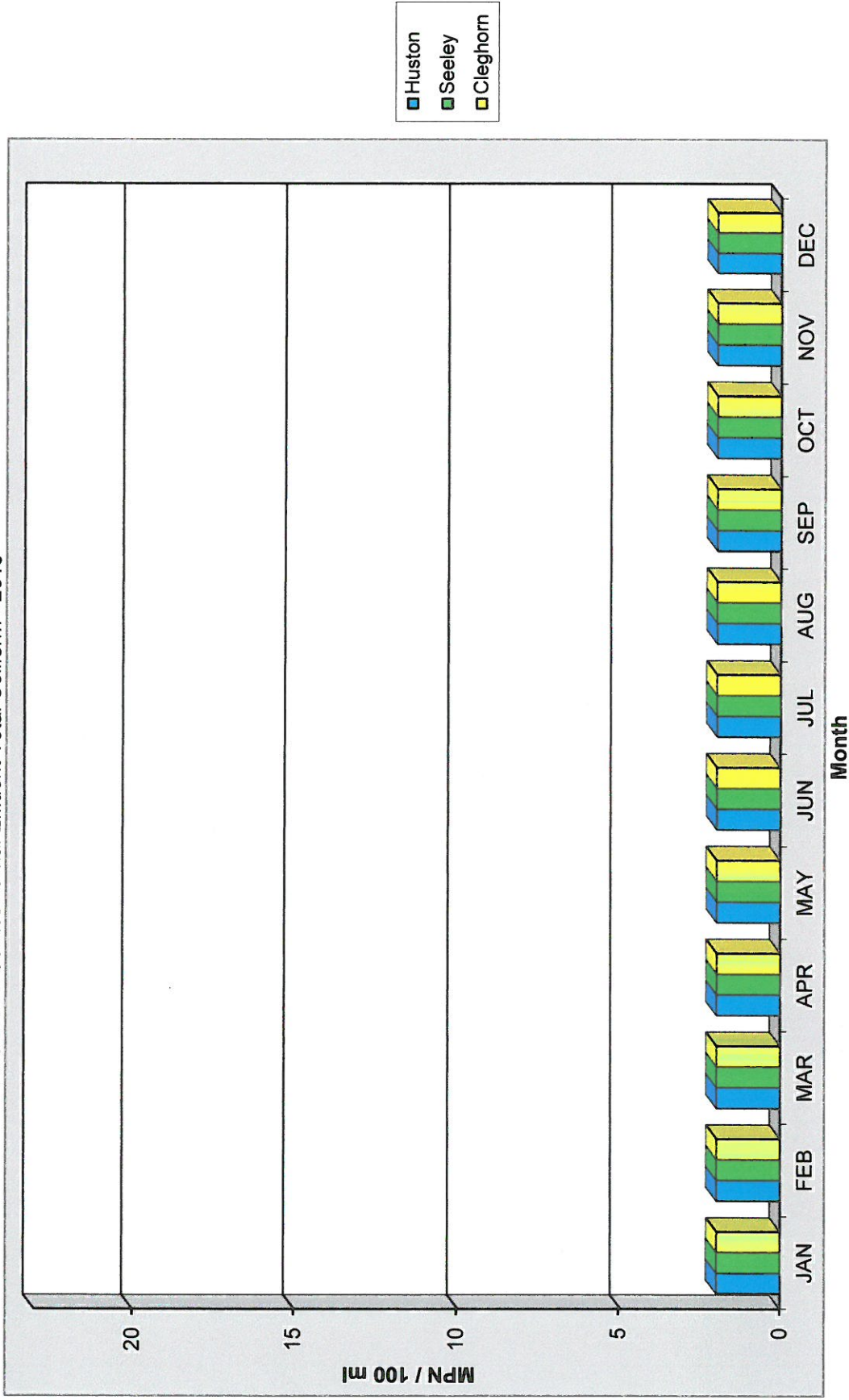
D - Sample has Effluent / Discharge Limitations

M - Sample has Effluent Monitoring Requirements

* median does not exceed 23/100 milliliters and does not exceed 240/100 milliliters in any two consecutive samples

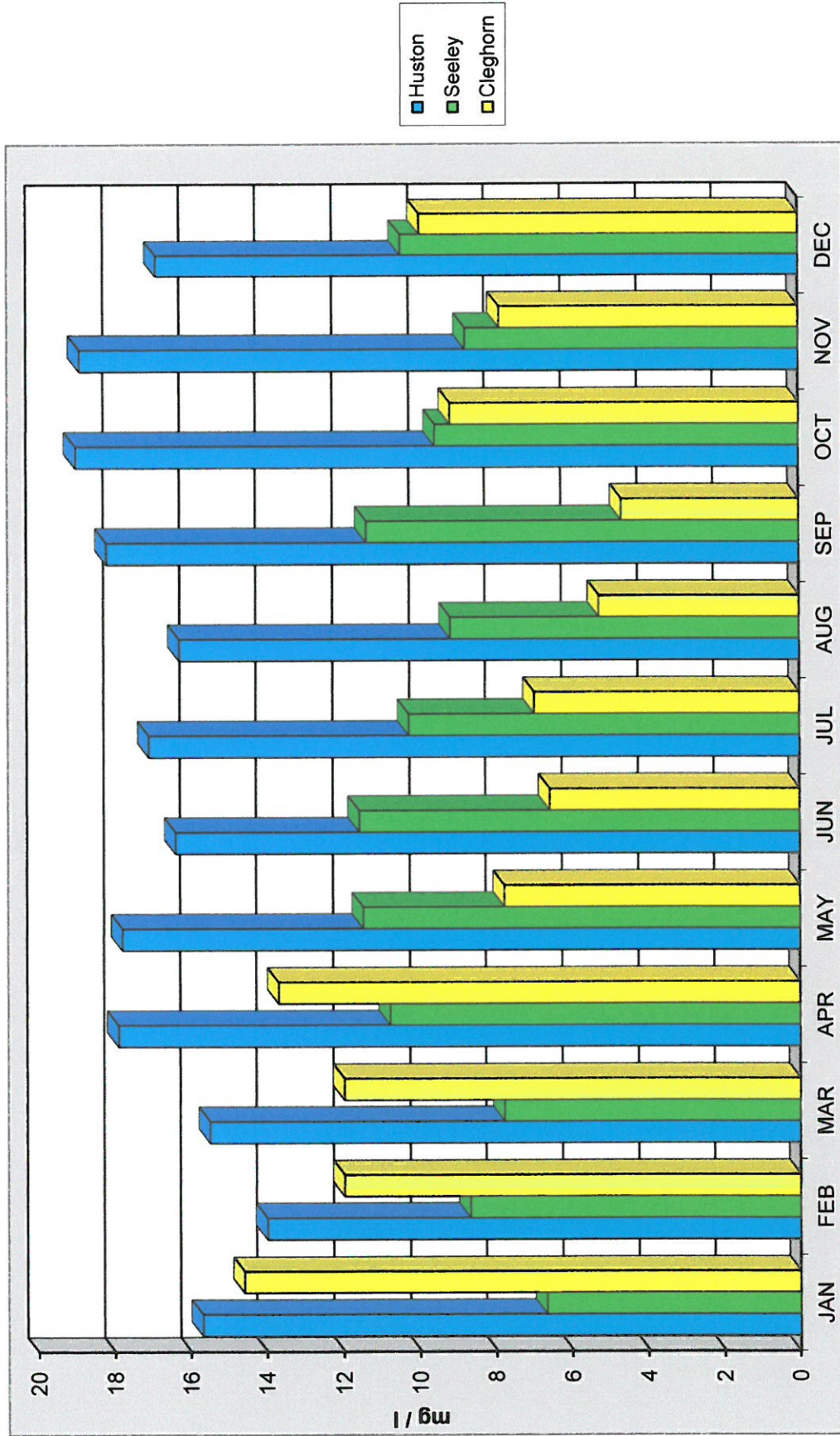
CRESTLINE SANITATION DISTRICT

Treatment Facilities - Final Effluent Total Coliform - 2016



CRESTLINE SANITATION DISTRICT

Treatment Facilities - Final Effluent Chlorine Residual - 2016



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ANNUAL REPORT
Effluent Monitoring
District Final Effluent - Monitoring Data
Las Flores Ranch Irrigation / Percolation

Year: **2016**

Sample Frequency	2 / Week		Weekly		2 / Month		2 / Month		2 / Month		Monthly		Monthly		
Violations															
Sample Type			DM	DM		M	DM	M		M		M	M	M	
Maximum			0.5 ml/l		< 9		2.0			A		A		A	
Mean/Minimum					> 1.0		1.0								
Median															
Test	23 / 100 *	CL2 Res	Settleable Solids	D. O.	pH	COD	MBAS	Oil & Grease	TKN	NO3-N	NH3-N				
Units		mg/l	ml/l	mg/l	units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	
Month															
JANUARY	2	3.4	<0.10	8.6	6.8	51.5	ND	ND	12.50	9.20	11.50				
FEBRUARY	2	4.9	<0.10	8.4	7.0	56.3	ND	ND	17.40	14.70	16.80				
MARCH	2	4.6	<0.10	8.5	7.0	45.5	ND	ND	15.00	14.50	7.00				
APRIL	2	5.4	<0.10	8.0	7.2	53.0	ND	ND	23.20	10.40	22.20				
MAY	2	7.6	<0.10	8.0	7.0	83.5	ND	ND	22.00	10.30	21.30				
JUNE	2	4.4	<0.10	7.1	7.4	58.5	ND	ND	18.50	9.20	17.30				
JULY	2	4.4	<0.10	6.8	7.3	62.0	ND	ND	26.80	8.20	25.80				
AUGUST	2	4.6	<0.10	6.8	7.5	68.5	ND	ND	35.00	10.70	34.50				
SEPTEMBER	2	5.3	<0.10	7.1	7.3	71.5	ND	ND	19.30	9.30	18.50				
OCTOBER	2	9.2	<0.10	7.4	7.4	50.0	ND	ND	29.50	8.80	27.00				
NOVEMBER	2	8.2	<0.10	7.8	7.3	59.5	ND	ND	22.80	8.40	22.00				
DECEMBER	2	7.4	<0.10	7.7	7.5	46.0	ND	ND	21.20	12.70	20.80				
AVERAGES		5.8	< 0.10	7.7	7.2	58.8	ND	ND	21.93	10.53	20.39				

D - Sample has Effluent / Discharge Limitations M - Sample has Effluent Monitoring Requirements

A - Result not an average (only one sample collected per month)

* median does not exceed 23/100 milliliters and does not exceed 240/100 milliliters in any two consecutive samples

CRESTLINE SANITATION DISTRICT
ANNUAL REPORT
Effluent Monitoring
District Final Effluent - Monitoring Data
Las Flores Ranch Irrigation / Percolation

Year: **2016**

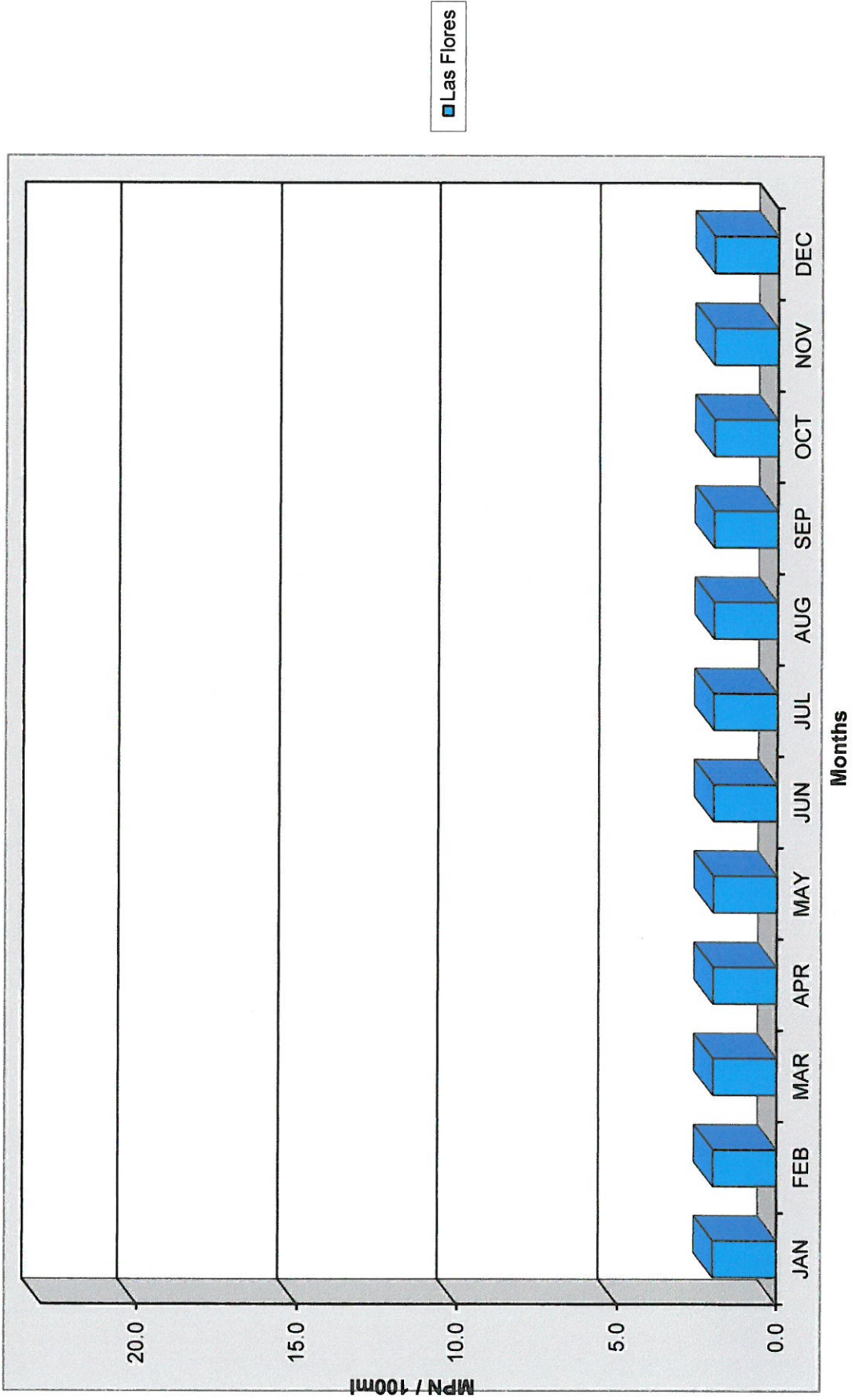
Sample Frequency Violations	Semiannual Testing						Annual Testing						
	M	M	M	M	M	M	M	M	M	M	M	M	
Sample Type	A	A	A	A	A	A	A	A	A	A	A	A	
Mean/Minimum													
Median													
Test	TDS	Chloride	Sodium	Sulfate	Boron	Flouride	Total Cyanides	Total Phenols	Base/Neutral/Acid Extractable Organics	Heavy Metals	Total Petroleum Hydrocarbons		
Units	mg/l	mg/l	ml/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	ug/l	ug/l		
Month													
JANUARY													
FEBRUARY													
MARCH	500.0	120.0	93.0	140.0	0.19	0.57							
APRIL													
MAY													
JUNE													
JULY													
AUGUST													
SEPTEMBER	660	171.0	110.0	149.0	0.38	0.70	A	A	A	A	A	A	A
OCTOBER													
NOVEMBER													
DECEMBER													

D - Sample has Effluent / Discharge Limitations M - Sample has Effluent Monitoring Requirements

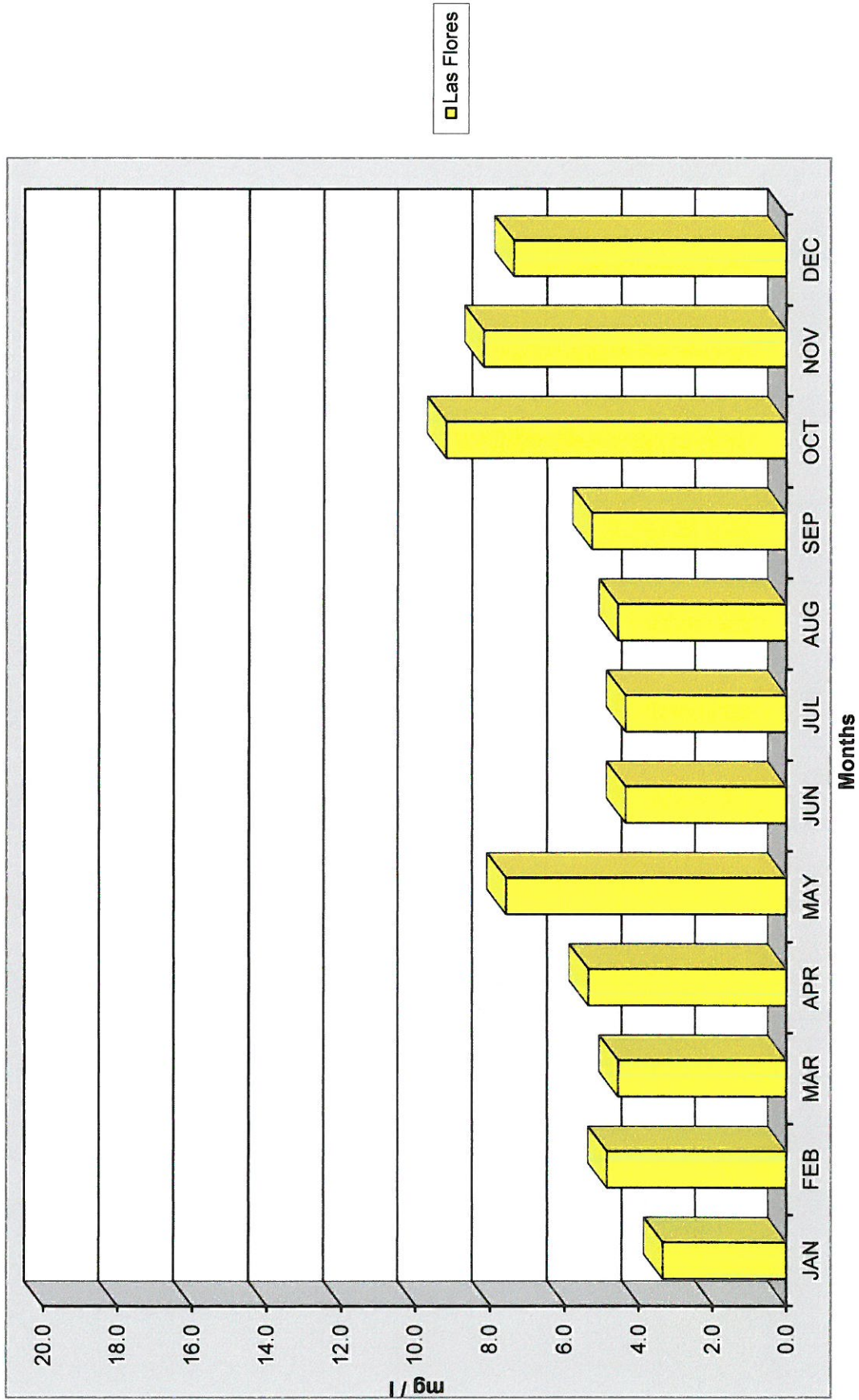
A - For Sample Results see Appendix " A "

CRESTLINE SANITATION DISTRICT

District Final Effluent - Median Total Coliform - 2016

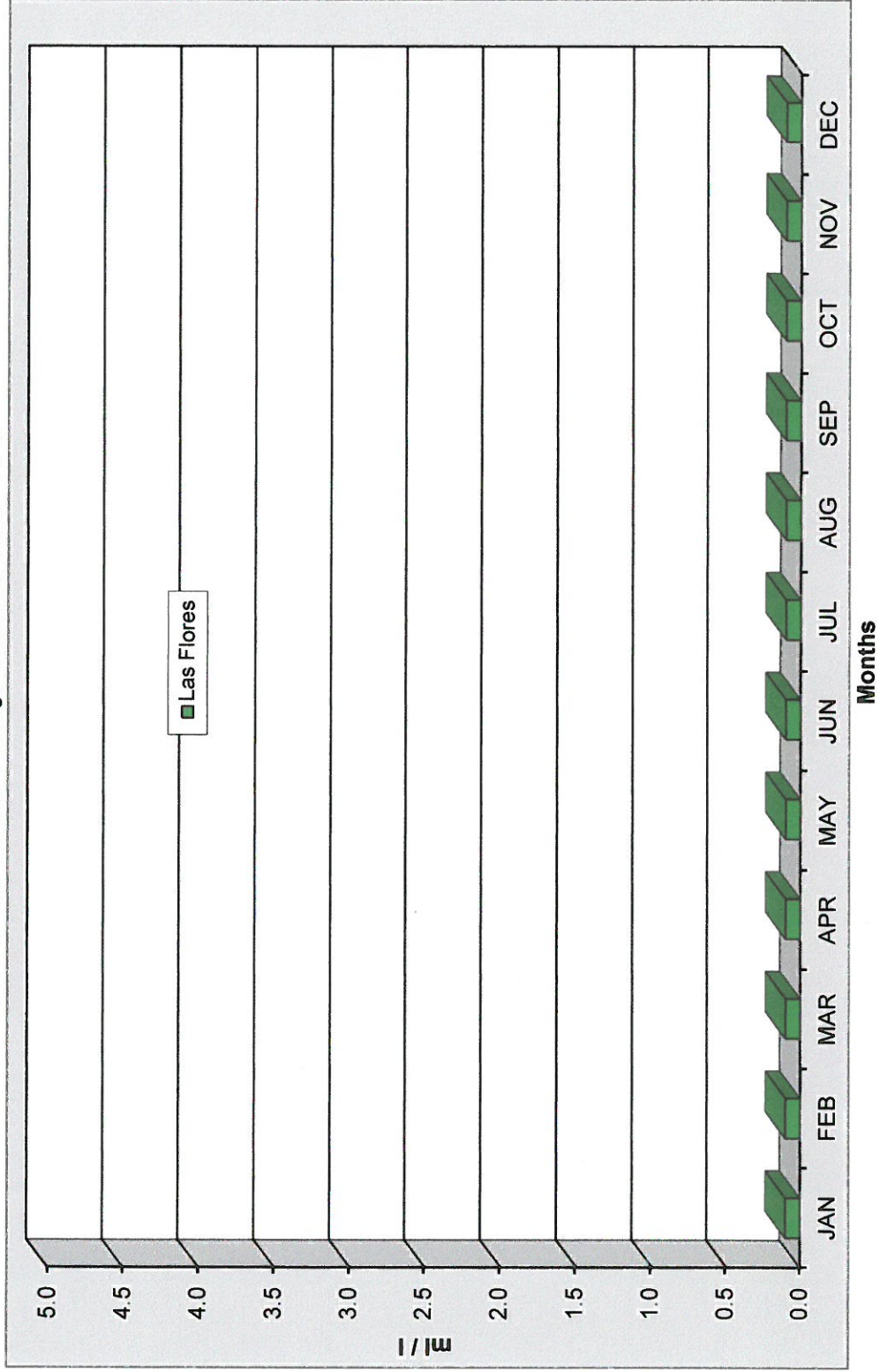


CRESTLINE SANITATION DISTRICT
District Final Effluent - Average Chlorine Residual - 2016



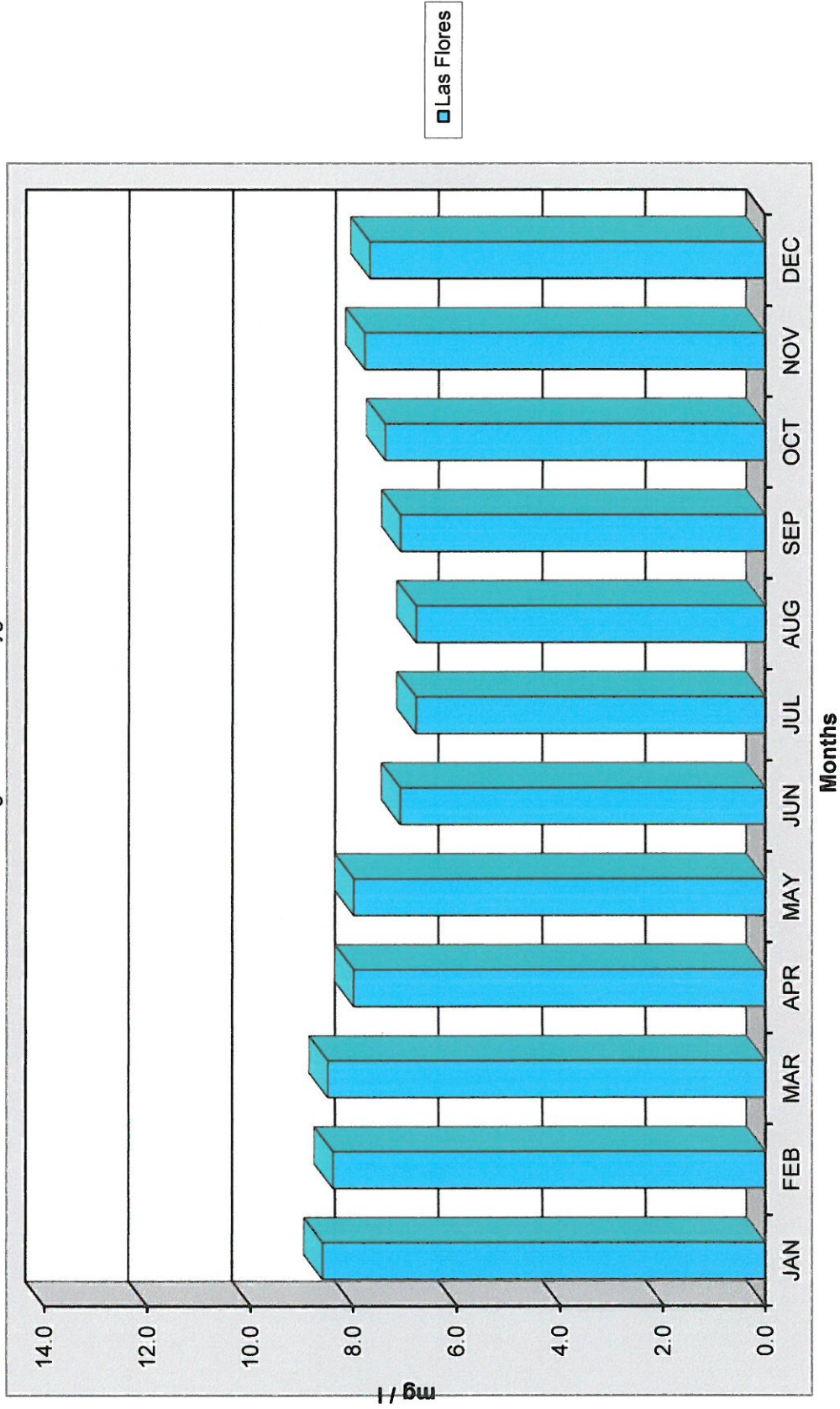
CRESTLINE SANITATION DISTRICT

District Final Effluent - Average Settleable Solids - 2016



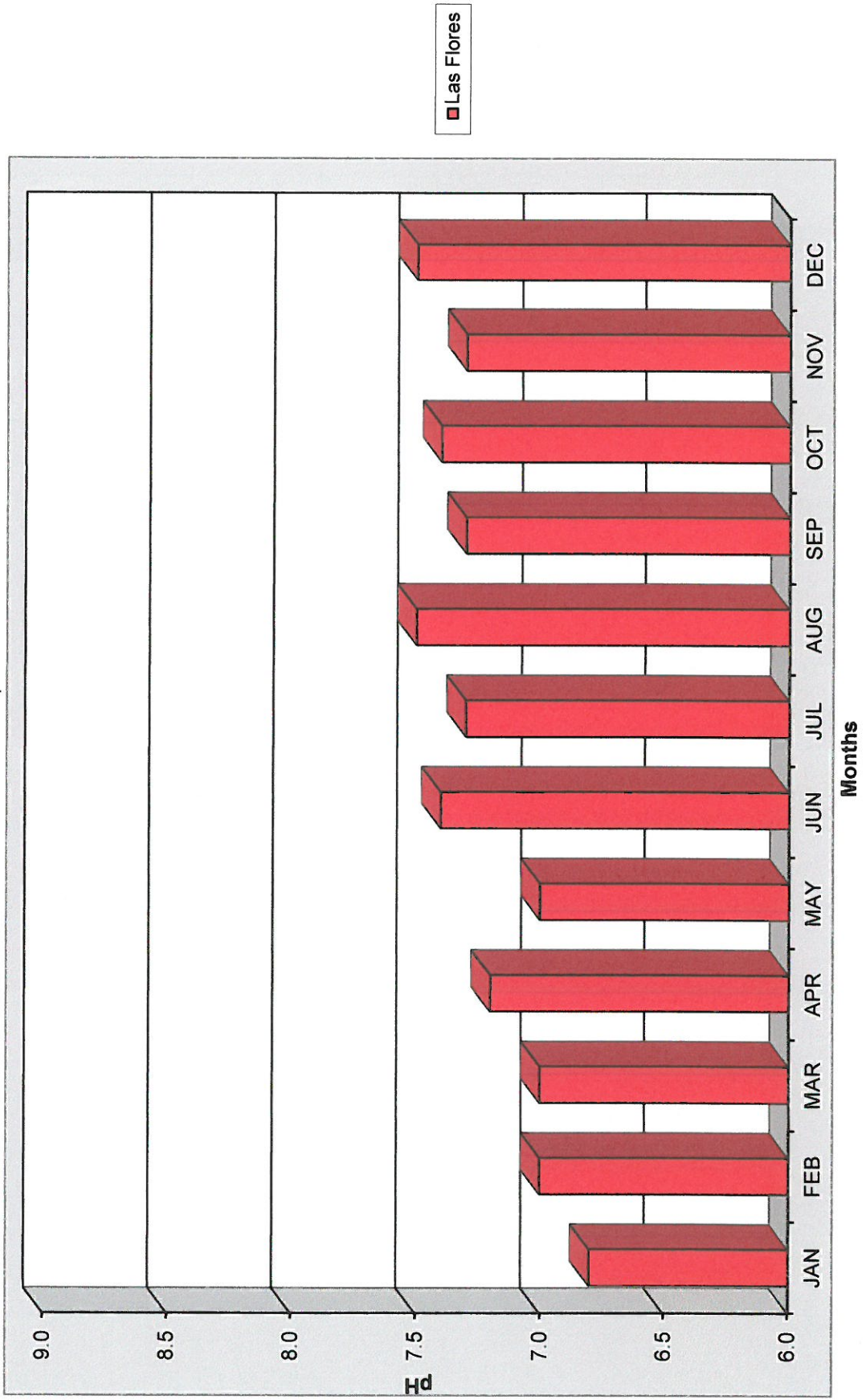
CRESTLINE SANITATION DISTRICT

District Final Effluent - Average Dissolved Oxygen - 2016



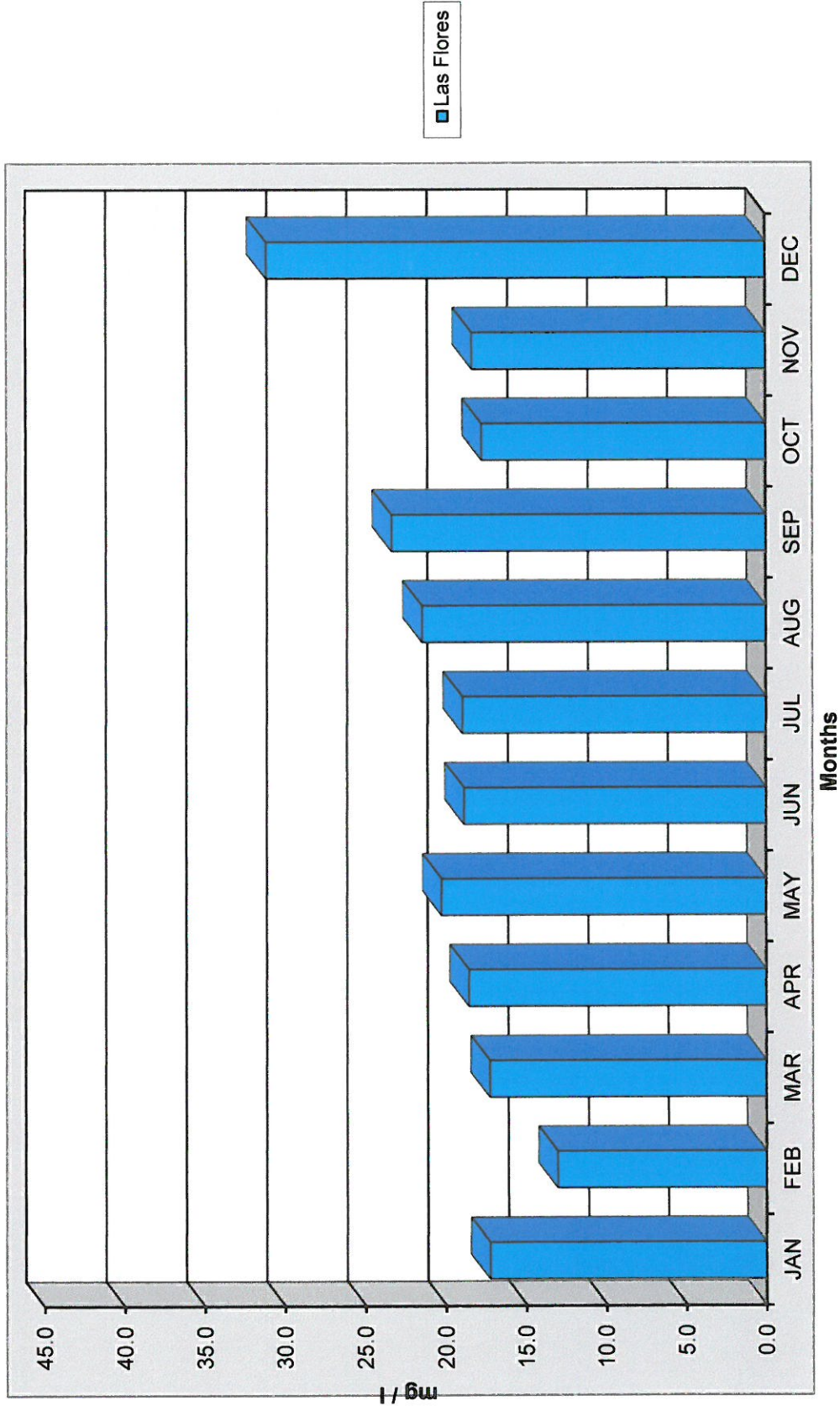
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District Final Effluent - pH - 2016



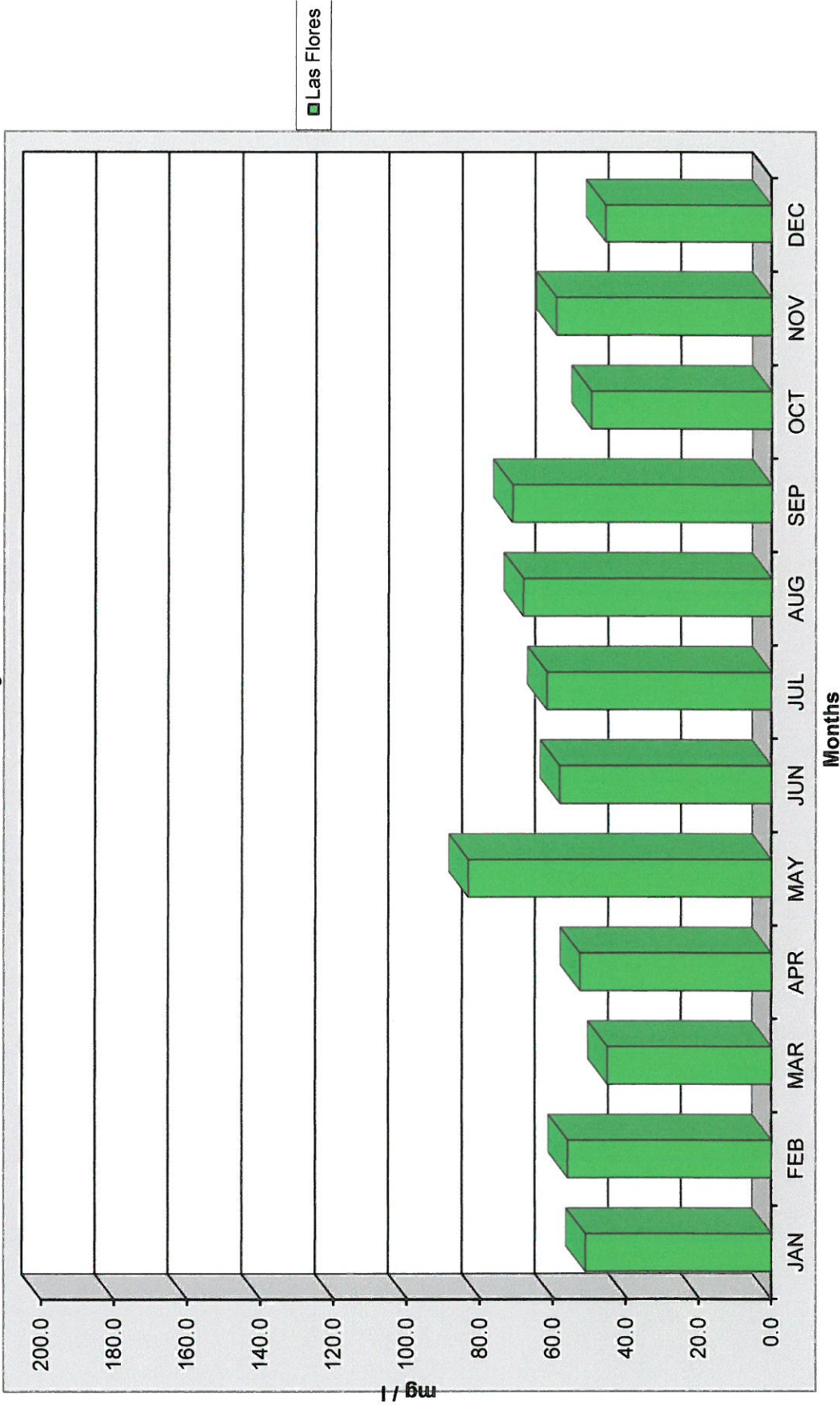
CRESTLINE SANITATION DISTRICT

District Final Effluent - Average BOD - 2016

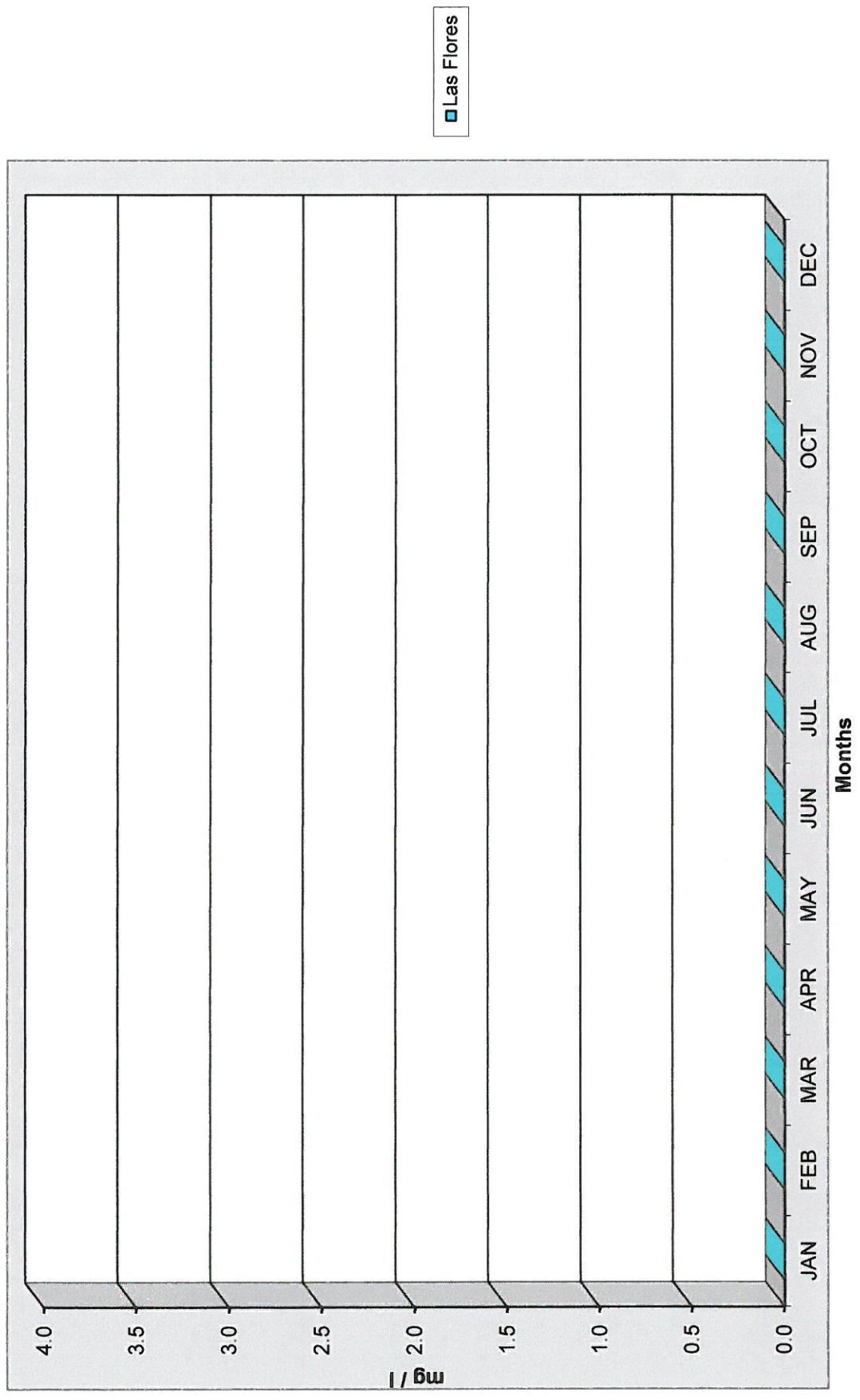


CRESTLINE SANITATION DISTRICT

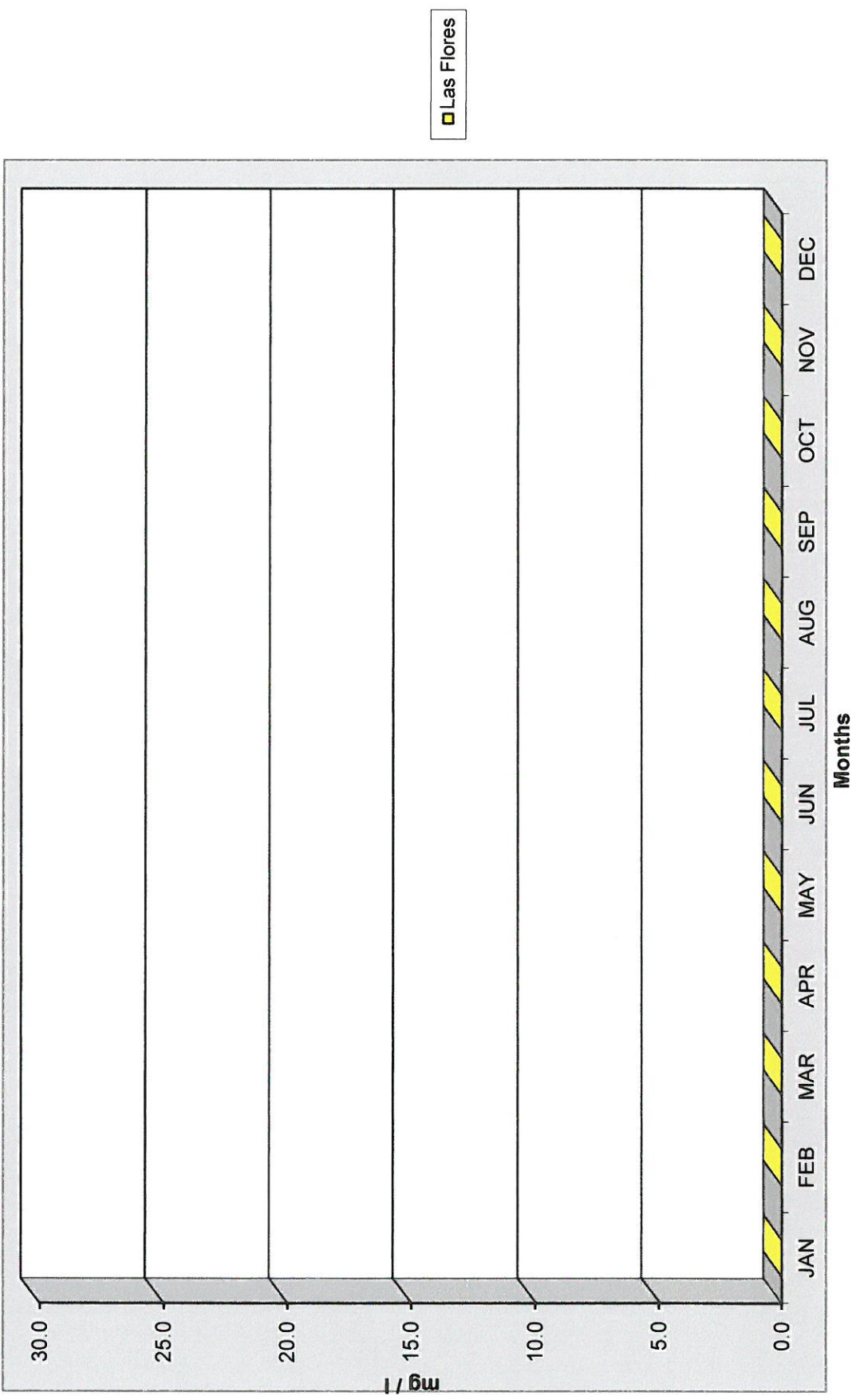
District Final Effluent - Average COD - 2016



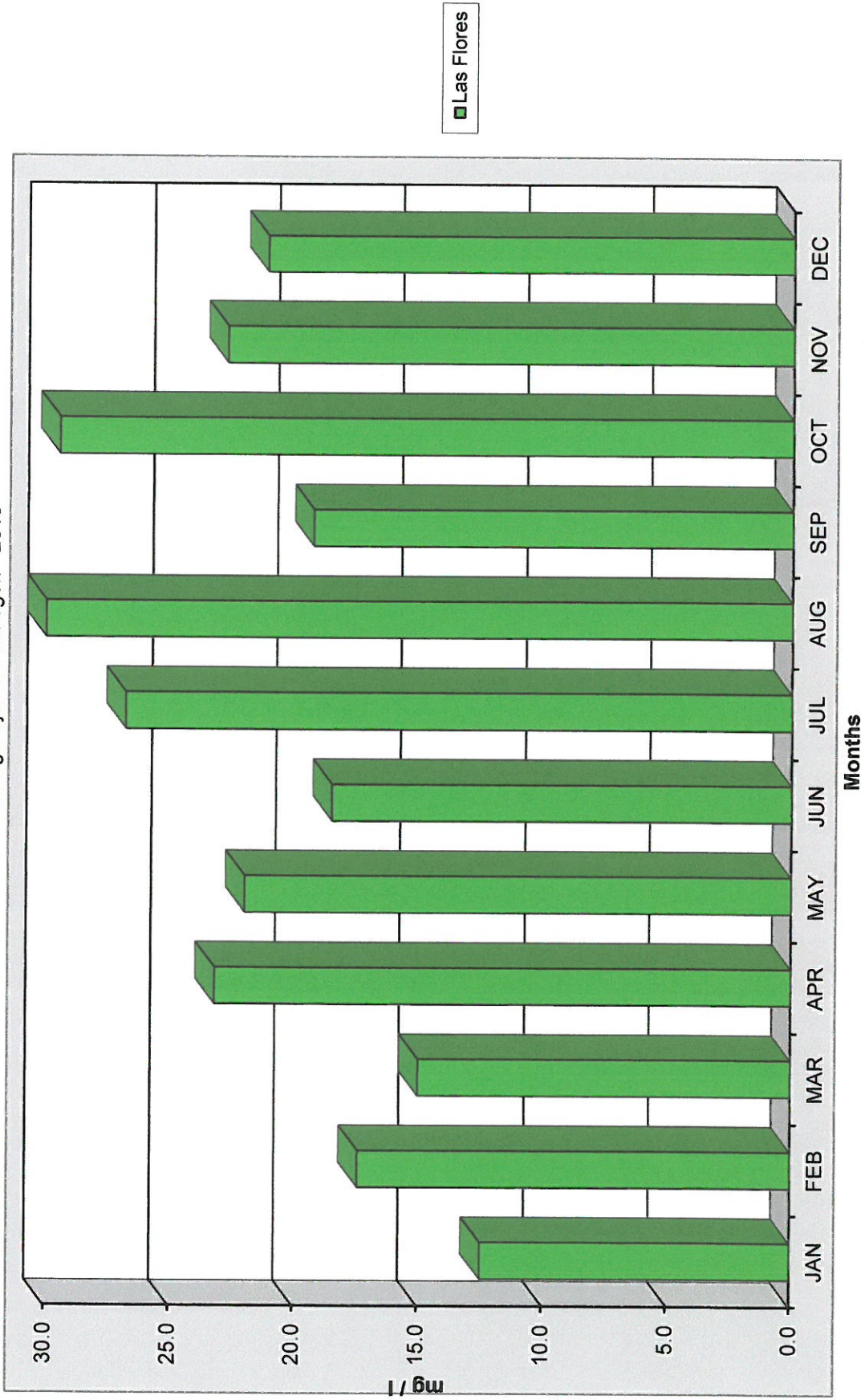
CRESTLINE SANITATION DISTRICT
 District Final Effluent - Average MBAS - 2016



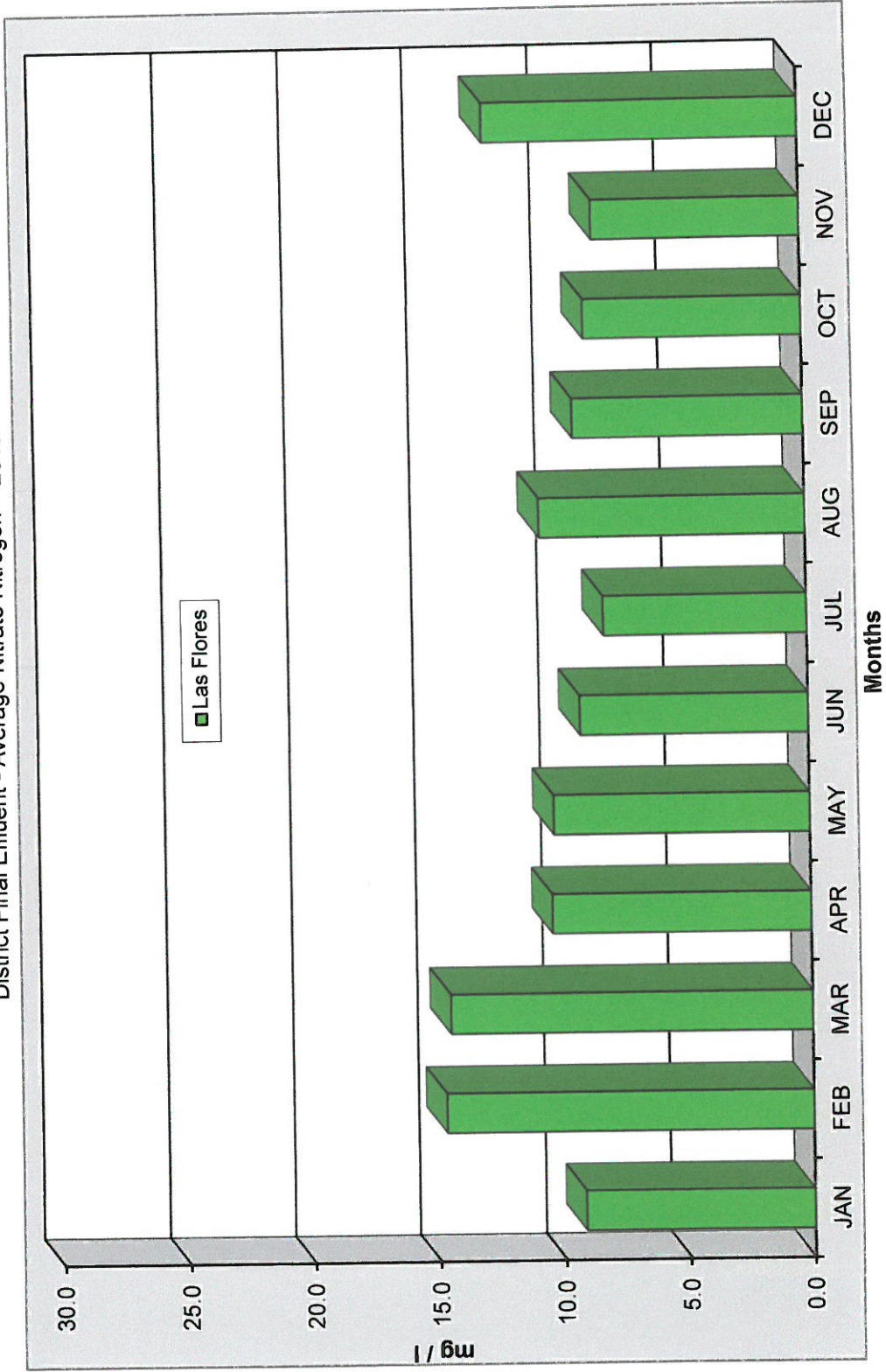
CRESTLINE SANITATION DISTRICT
District Final Effluent - Average Oil & Grease - 2016



CRESTLINE SANITATION DISTRICT
District Final Effluent - Average Kjeldahl Nitrogen - 2016

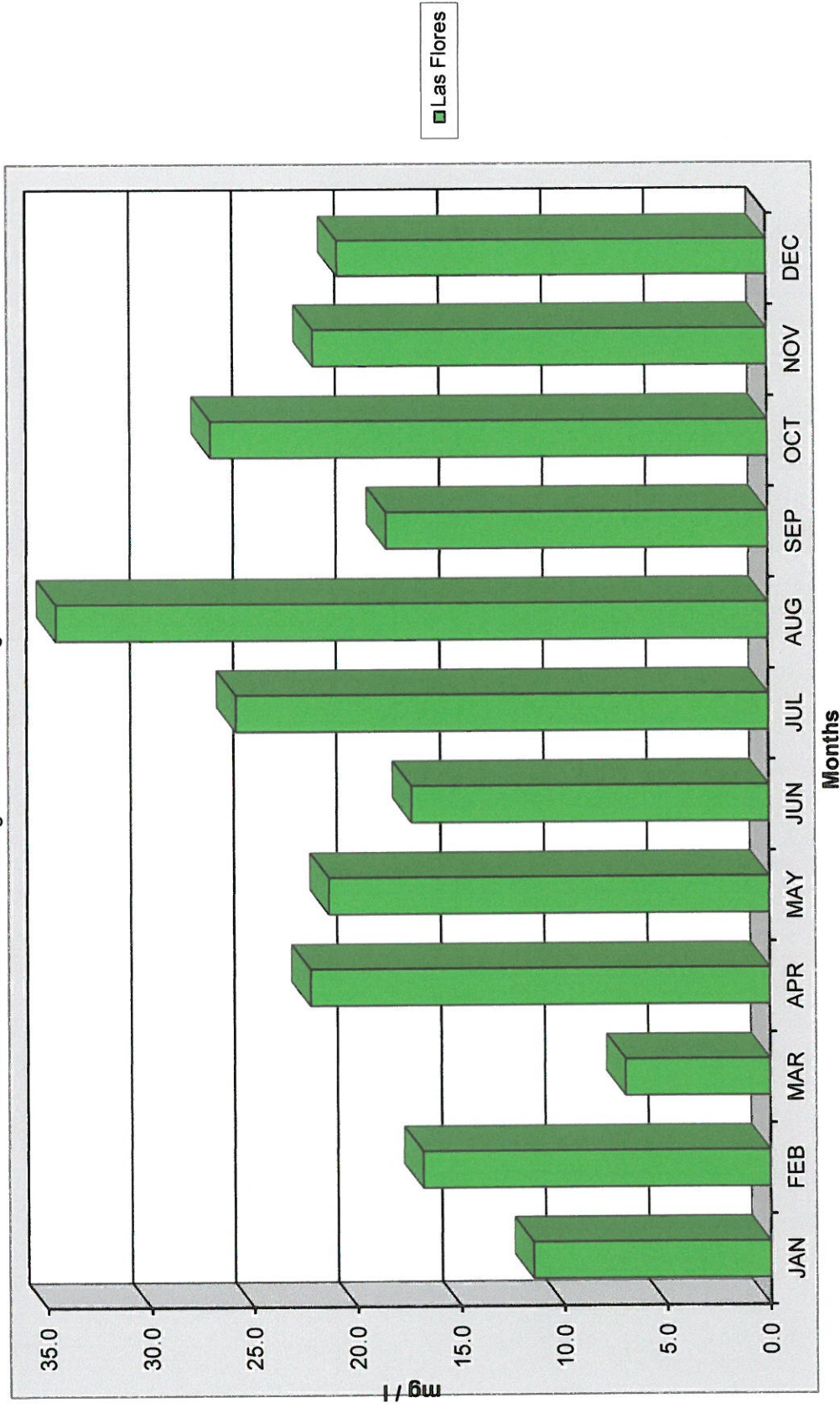


CRESTLINE SANITATION DISTRICT
District Final Effluent - Average Nitrate Nitrogen - 2016



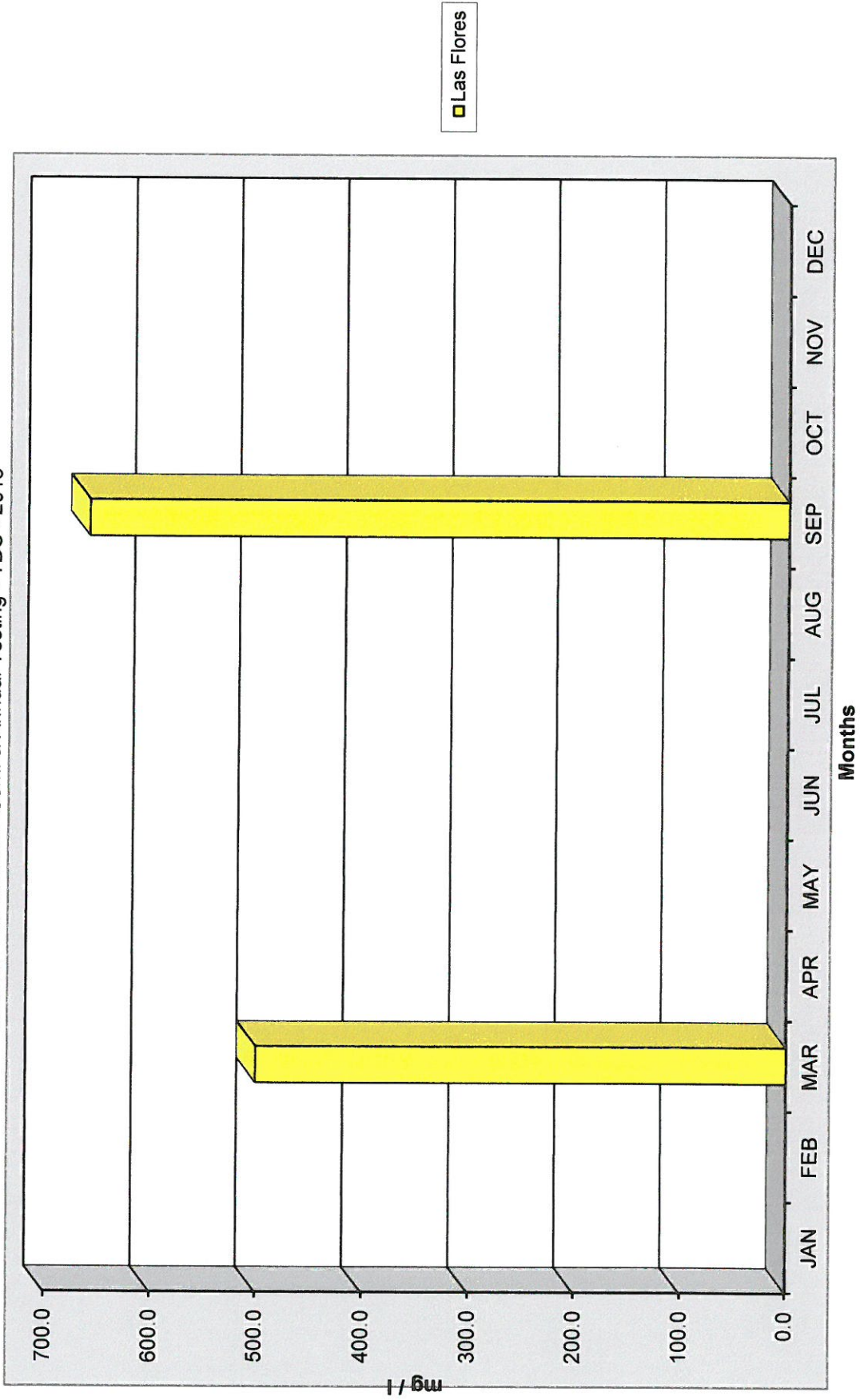
CRESTLINE SANITATION DISTRICT

District Final Effluent - Average Ammonia Nitrogen - 2016



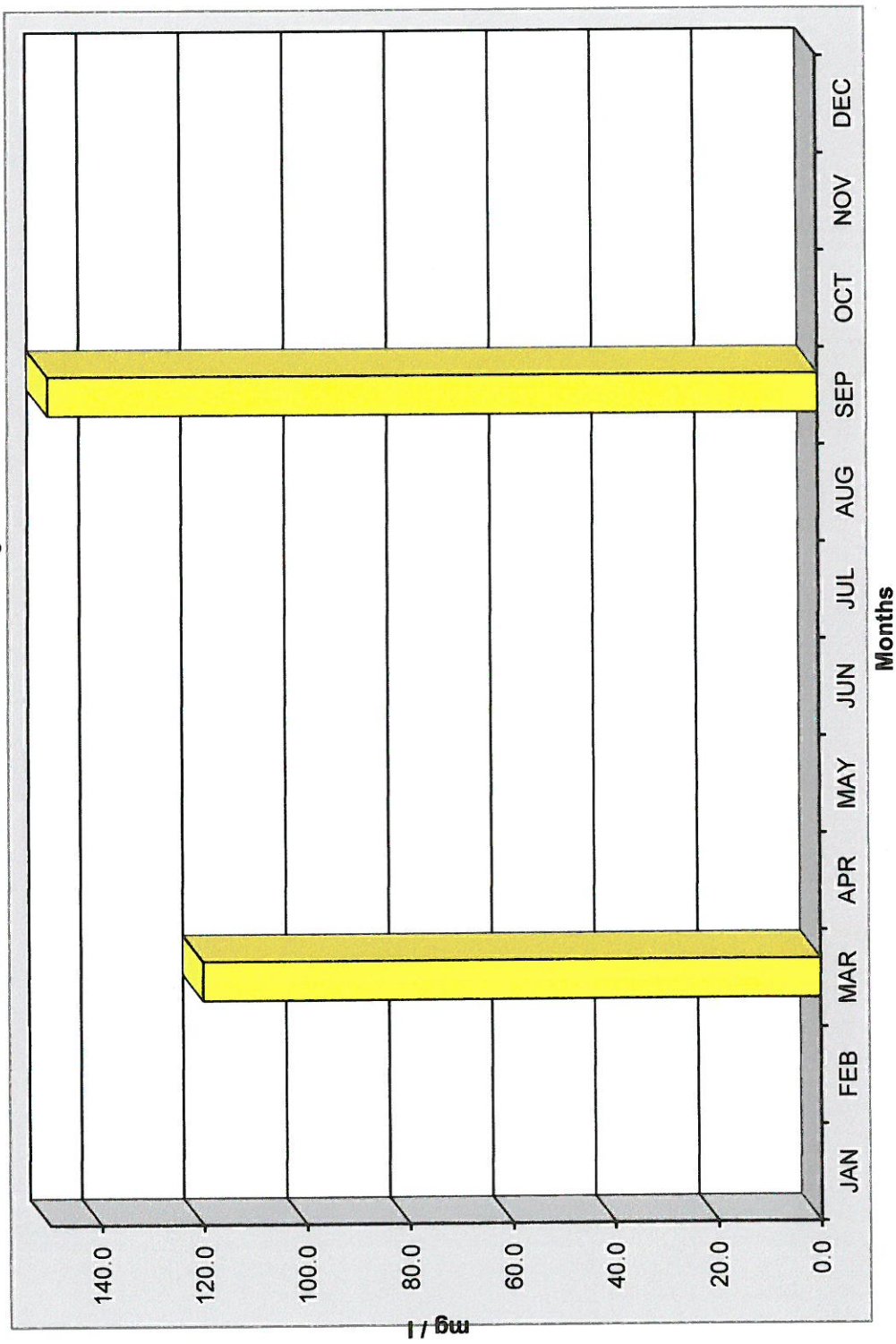
CRESTLINE SANITATION DISTRICT

District Final Effluent - Semi & Annual Testing - TDS - 2016



CRESTLINE SANITATION DISTRICT

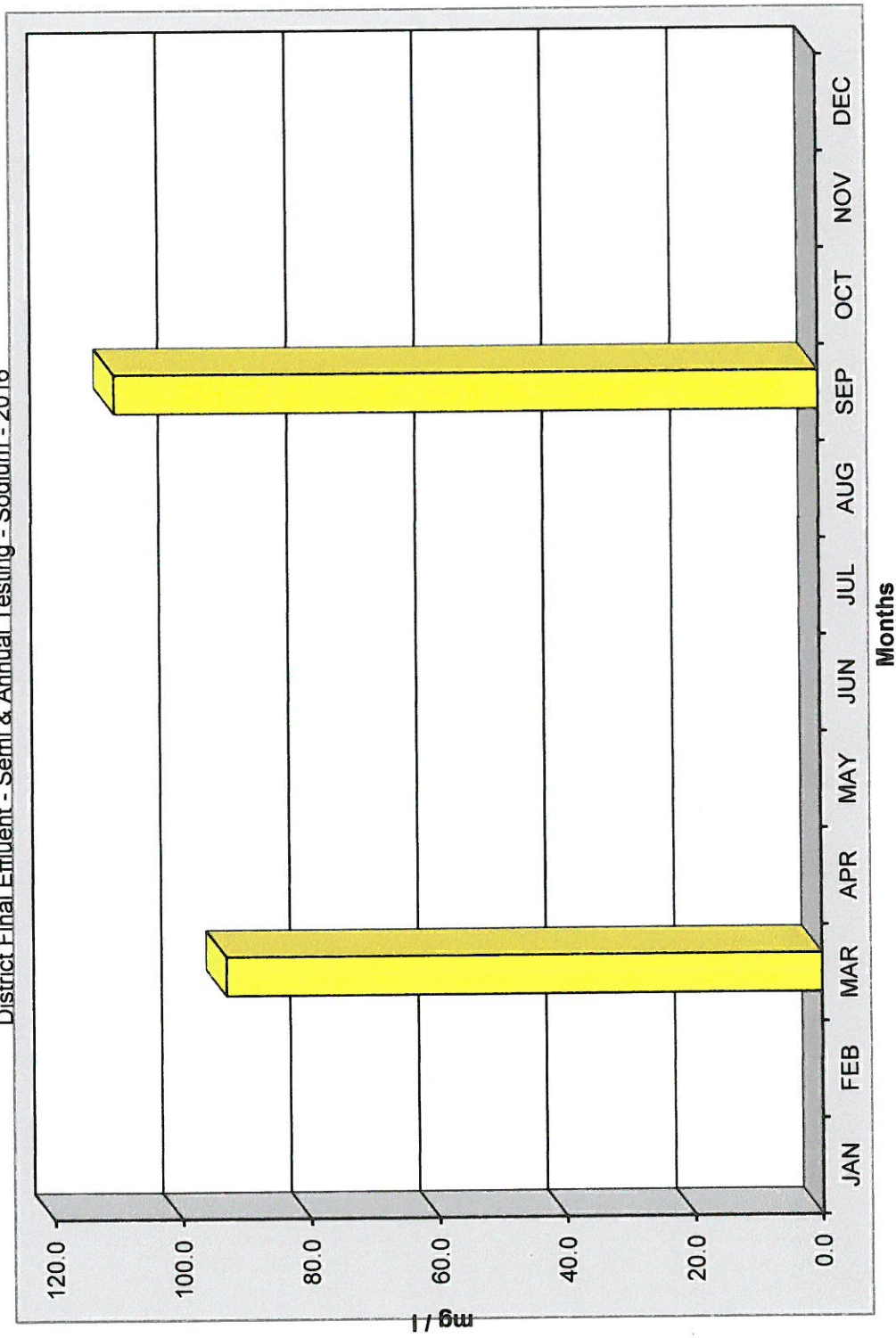
District Final Effluent - Semi & Annual Testing - Chloride - 2016



Las Flores

CRESTLINE SANITATION DISTRICT

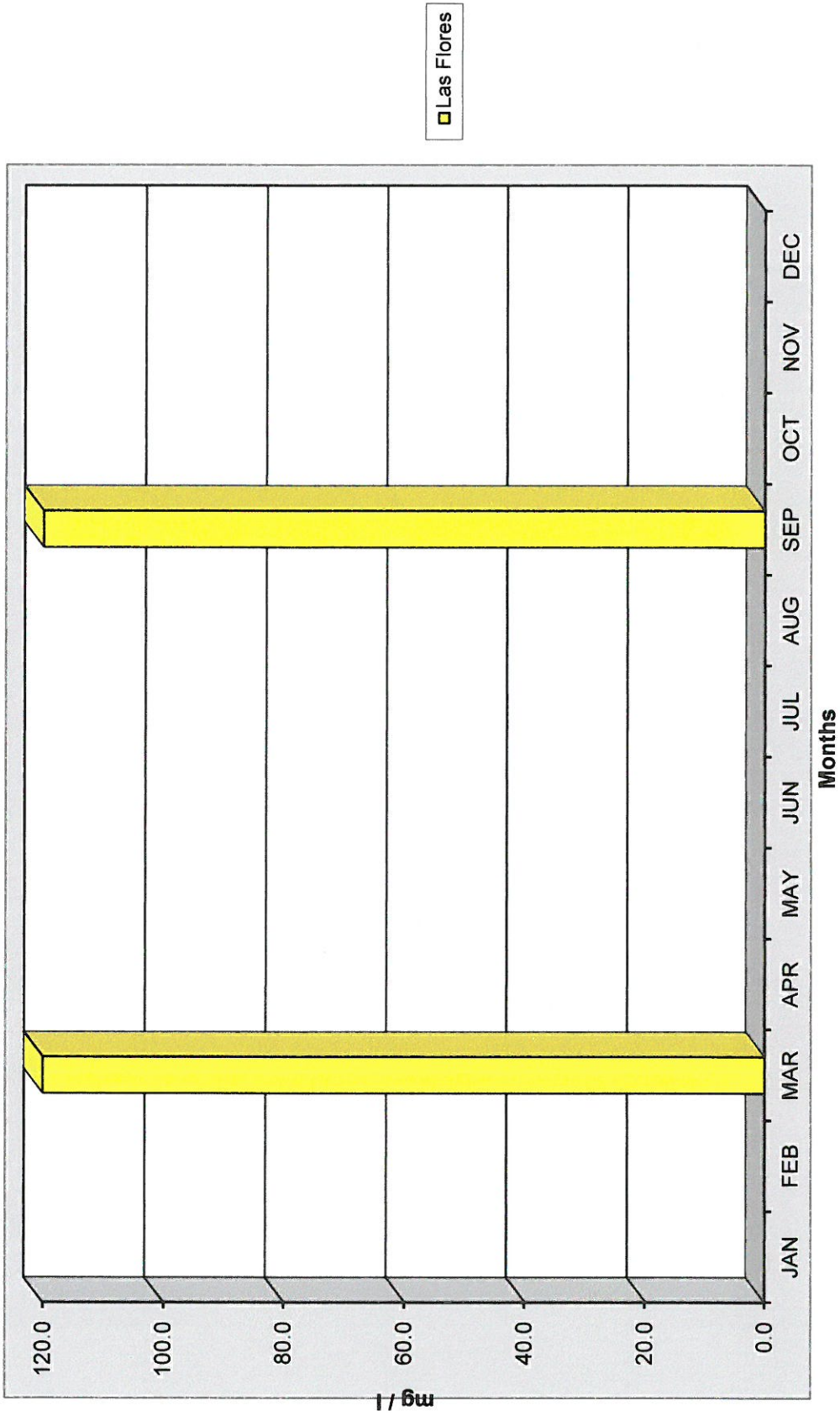
District Final Effluent - Semi. & Annual Testing - Sodium - 2016



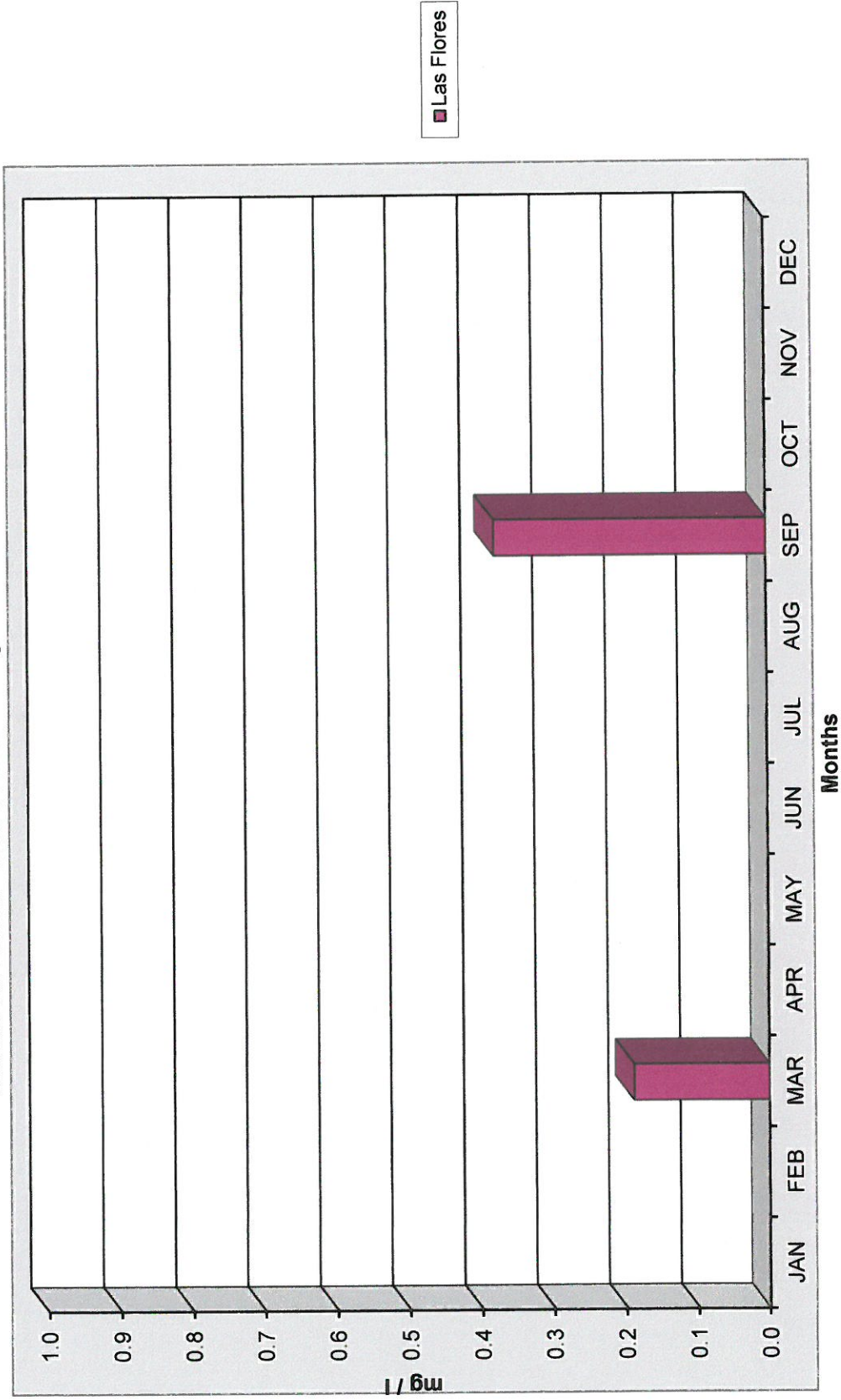
Las Flores

CRESTLINE SANITATION DISTRICT

District Final Effluent - Semi & Annual Testing - Sulfate - 2016

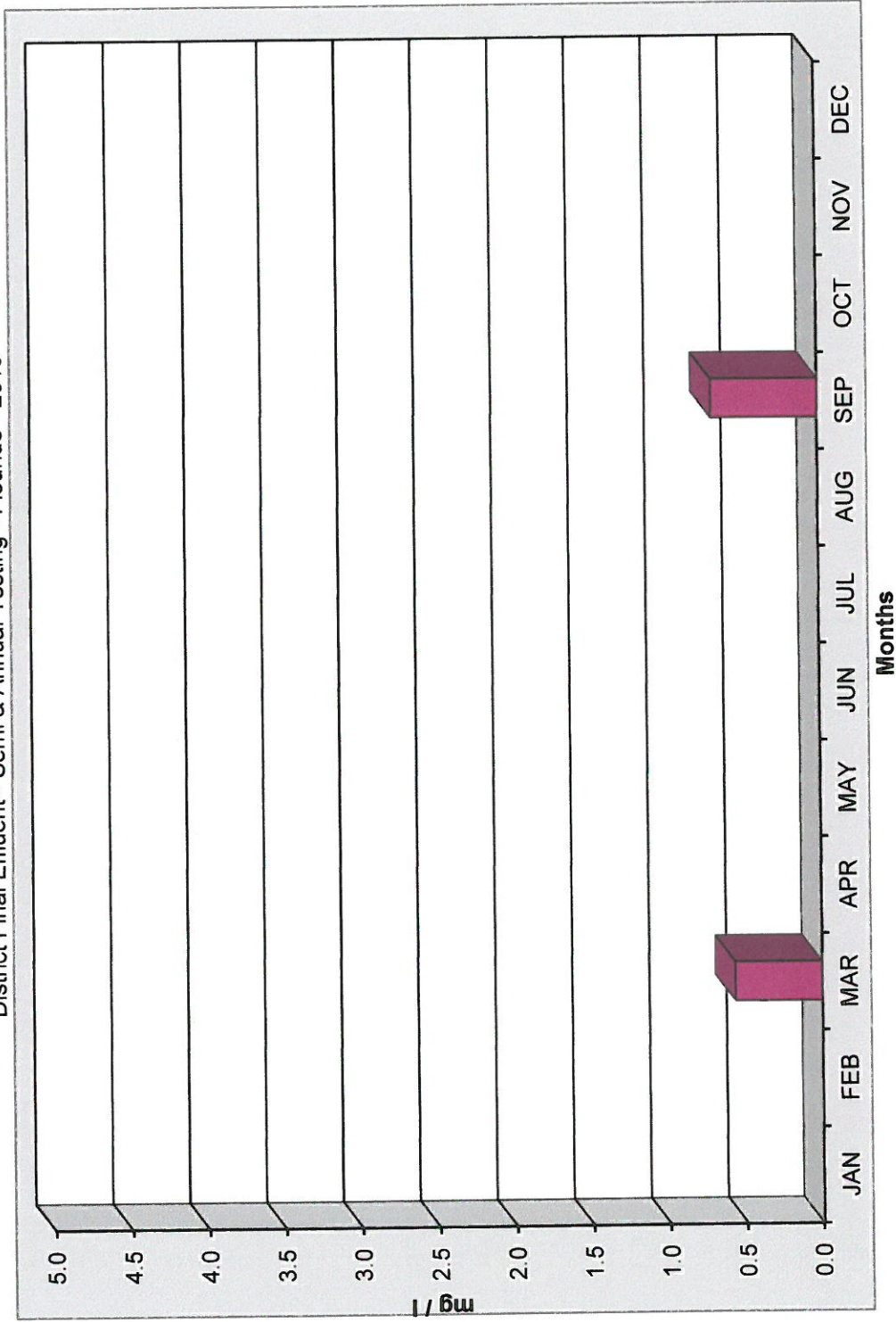


CRESTLINE SANITATION DISTRICT
 District Final Effluent - Semi & Annual Testing - Boron - 2016



CRESTLINE SANITATION DISTRICT

District Final Effluent - Semi & Annual Testing - Flouride - 2016



**CRESTLINE SANITATION DISTRICT
ANNUAL REPORT**

Sludge Monitoring

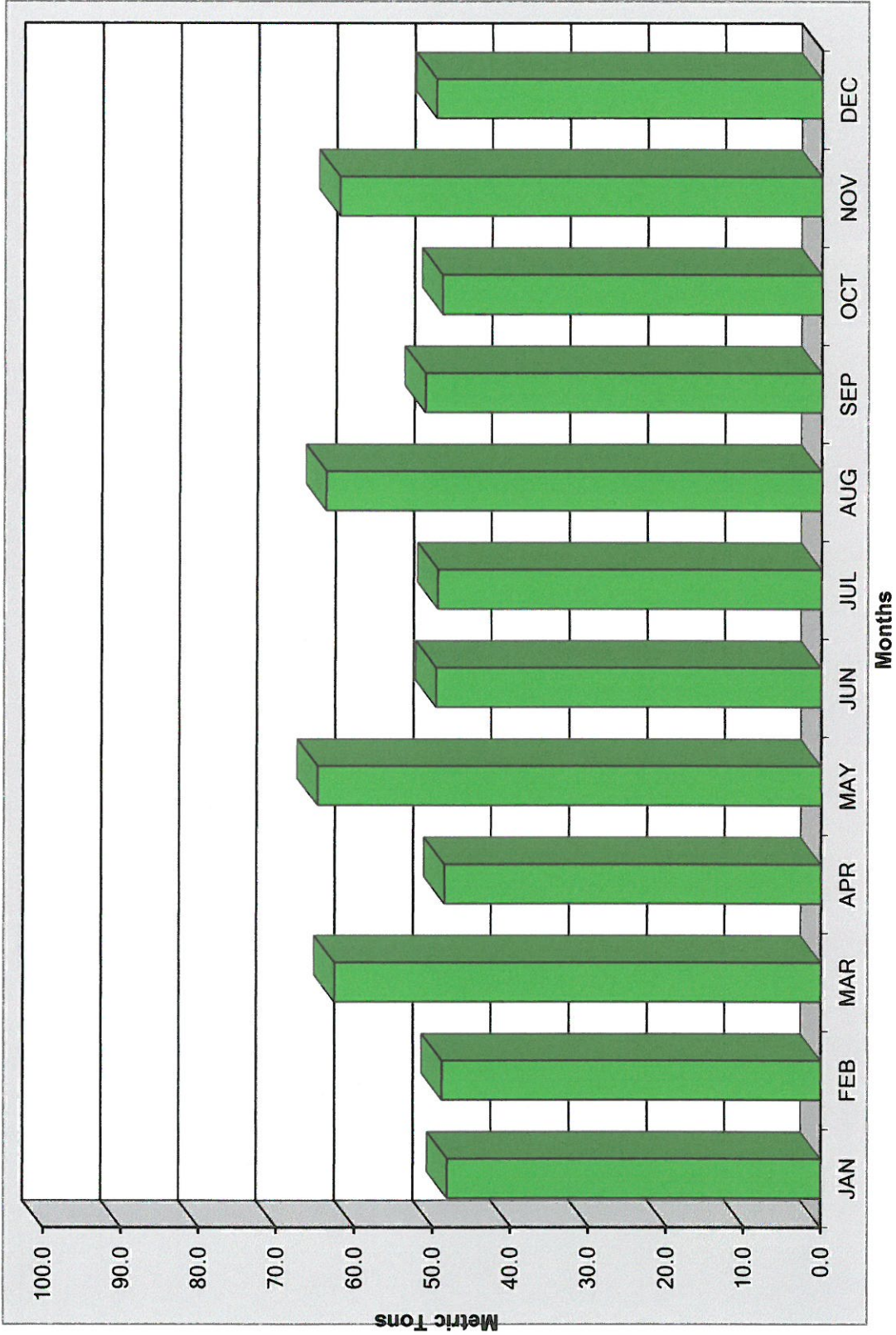
Year: 2016

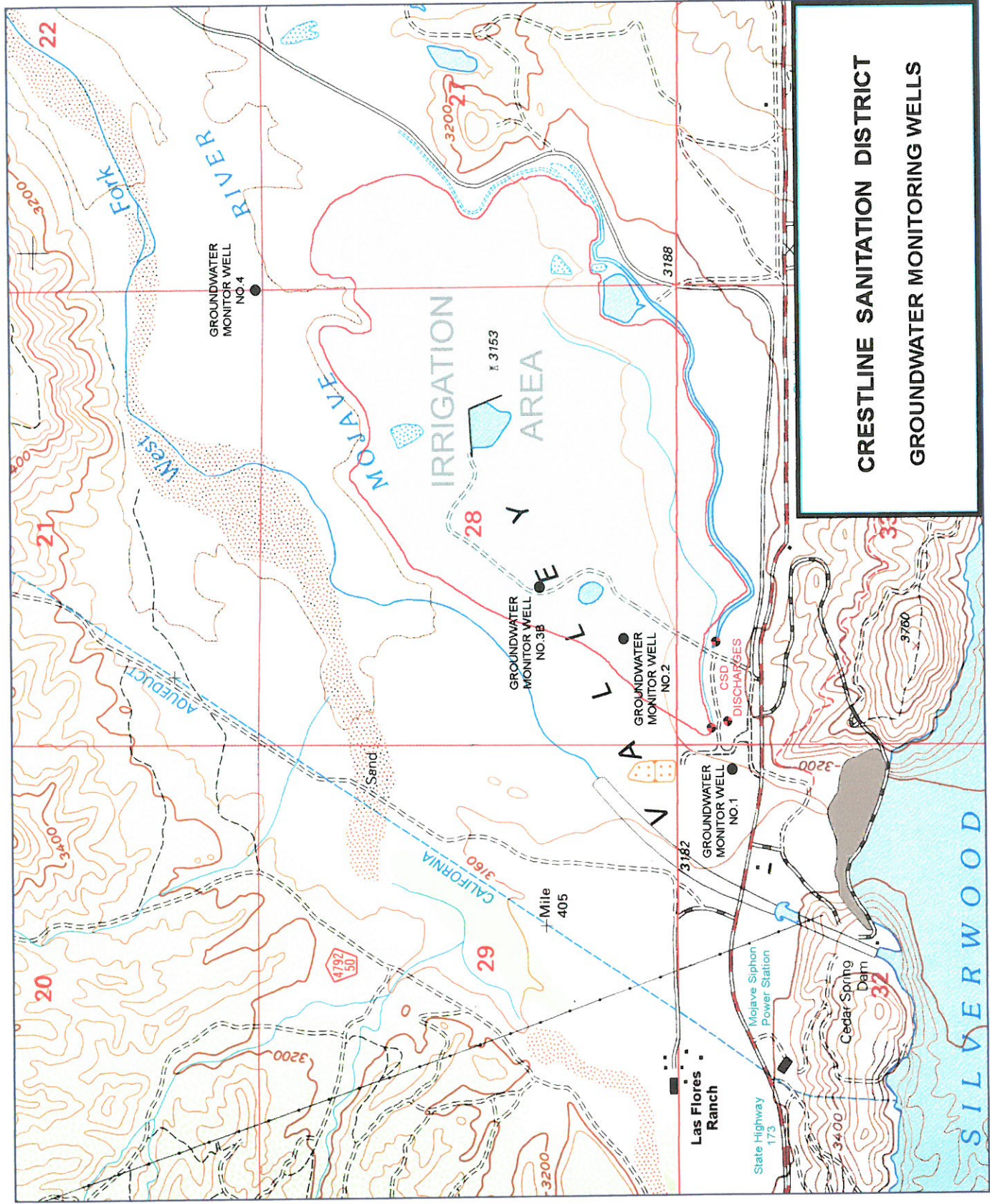
	Sludge Generated	Sludge Removed from Site	Sludge Disposal Method	Sludge Stockpiled on Site
Month				
January	48.2 tons	48.2 Tons	(a)	0.0 Tons
February	48.9 tons	48.9 Tons	(a)	0.0 Tons
March	62.6 tons	62.6 Tons	(a)	0.0 Tons
April	48.6 tons	48.6 Tons	(a)	0.0 Tons
May	64.8 tons	64.8 Tons	(a)	0.0 Tons
June	49.7 tons	49.7 Tons	(a)	0.0 Tons
July	49.5 tons	49.5 Tons	(a)	0.0 Tons
August	63.8 tons	63.8 Tons	(a)	0.0 Tons
September	51.2 tons	51.2 Tons	(a)	0.0 Tons
October	49.0 tons	49.0 Tons	(a)	0.0 Tons
November	62.2 tons	62.2 Tons	(a)	0.0 Tons
December	49.8 tons	49.8 Tons	(a)	0.0 Tons
TOTAL	648.3 tons	648.3 Tons	(a)	0.0 Tons

(a) Sludge is collected from Crestline's three treatment plants and Pilot Rock, mixed and pressed at the Huston Creek Treatment Plant. After pressing; the solids are disposed of at One Stop Landscape (13024 San Timoteo Canyon Road, Redlands, CA 92373) for composting and eventual recycling.

Note: Laboratory Analysis of the sludge is not required at this time in recognition that there are no significant industrial waste inputs to the sewer system, and because sludge sampling is required by the disposal facility that accepts the Discharger's sludge. The Regional Board may require qualitative laboratory testing of the sludge if sludge disposal practices and/or locations, as disclosed in the waste discharge requirements, are altered. (Monitoring and Reporting Program 94-57)

CRESTLINE SANITATION DISTRICT
Annual Sludge Production per Month - 2016





**CRESTLINE SANITATION DISTRICT
GROUNDWATER MONITORING WELLS**

**CRESTLINE SANITATION DISTRICT
ANNUAL REPORT
Pasture Monitoring Well Number 1
Laboratory Monitoring Data**

Year: **2016**

Frequency	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	
Sample Type	A	A	A	A	A	A	A	A	A	
Sample	Sulfate	Sodium	MBAS	Chloride	TDS	TKN	NH3-N	NO3-N	Water Depth	Well
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	feet *	Number
JANUARY										
FEBRUARY										
MARCH	130.0	79.0	ND	54.6	360	0.46	0.44	2.30	3153.7	1
APRIL										
MAY										
JUNE	118.0	85.0	ND	23.2	280	0.18	0.17	0.90	3149.7	1
JULY										
AUGUST										
SEPTEMBER	136.0	76.0	ND	16.2	285	0.43	0.41	1.30	3149.0	1
OCTOBER										
NOVEMBER										
DECEMBER	119.0	82.0	ND	15.8	250	ND	ND	1.40	3150.0	1

A - Monitoring Requirement

* = Depth in feet from surface to groundwater

Lab results of ND (none detected) entered as 0.0 for graphing purpose

CRESTLINE SANITATION DISTRICT
Pasture Monitoring Well Number 2
Laboratory Monitoring Data

Year: **2016**

Frequency	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	
Sample Type	A	A	A	A	A	A	A	A	A	
Sample	Sulfate	Sodium	MBAS	Chloride	TDS	TKN	NH3-N	NO3-N	Water Depth	Well
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	feet *	Number
JANUARY										
FEBRUARY										
MARCH	100.0	96.0	ND	153.0	520	0.26	0.24	4.80	3153.5	2
APRIL										
MAY										
JUNE	90.0	96.0	ND	105.0	440	0.14	0.12	1.00	3151.5	2
JULY										
AUGUST										
SEPTEMBER	150.0	88.0	ND	151.0	610	0.39	0.37	6.20	3151.2	2
OCTOBER										
NOVEMBER										
DECEMBER	85.0	90.0	ND	141.0	480	0.20	0.18	6.40	3153.2	2

A - Monitoring Requirement

* = Depth in feet from surface to groundwater

Lab results of ND (none detected) entered as 0.0 for graphing purpose

CRESTLINE SANITATION DISTRICT
ANNUAL REPORT
Pasture Monitoring Well Number 3
Laboratory Monitoring Data

Year: **2016**

Frequency	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	
Sample Type	A	A	A	A	A	A	A	A	A	
Sample	Sulfate	Sodium	MBAS	Chloride	TDS	TKN	NH3-N	NO3-N	Water Depth	Well
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	feet *	Number
JANUARY										
FEBRUARY										
MARCH	90.0	81.0	ND	124.0	450	0.17	0.16	2.40	3150.7	3
APRIL										
MAY										
JUNE	101.0	79.0	ND	126.0	490	0.15	0.13	1.40	3148.2	3
JULY										
AUGUST										
SEPTEMBER	103.0	56.0	ND	116.0	500	ND	ND	3.70	3146.7	3
OCTOBER										
NOVEMBER										
DECEMBER	95.0	88.0	ND	132.0	460	0.21	0.19	2.40	3148.5	3

A - Monitoring Requirement

* = Depth in feet from surface to groundwater

Lab results of ND (none detected) entered as 0.0 for graphing purpose

**CRESTLINE SANITATION DISTRICT
ANNUAL REPORT
Pasture Monitoring Well Number 4
Laboratory Monitoring Data**

Year: **2016**

Frequency	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	
Sample Type	A	A	A	A	A	A	A	A	A	
Sample Units	Sulfate	Sodium	MBAS	Chloride	TDS	TKN	NH3-N	NO3-N	Water Depth	Well
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	feet *	Number
JANUARY										
FEBRUARY										
MARCH	80.0	55.0	ND	159.0	516	0.23	0.21	0.90	3112.2	4
APRIL										
MAY										
JUNE	94.0	54.0	ND	154.0	560	0.16	0.14	2.40	3109.7	4
JULY										
AUGUST										
SEPTEMBER	117.0	48.0	ND	158.0	580	0.12	0.11	2.70	3108.8	4
OCTOBER										
NOVEMBER										
DECEMBER	90.0	56.0	ND	164.0	540	0.13	0.12	2.70	3109.4	4

A - Monitoring Requirement

* = Depth in feet from surface to groundwater

Lab results of ND (none detected) entered as 0.0 for graphing purpose

**CRESTLINE SANITATION DISTRICT
ANNUAL REPORT
Pasture Monitoring Wells
Laboratory Monitoring Data**

Annual Samples

2016

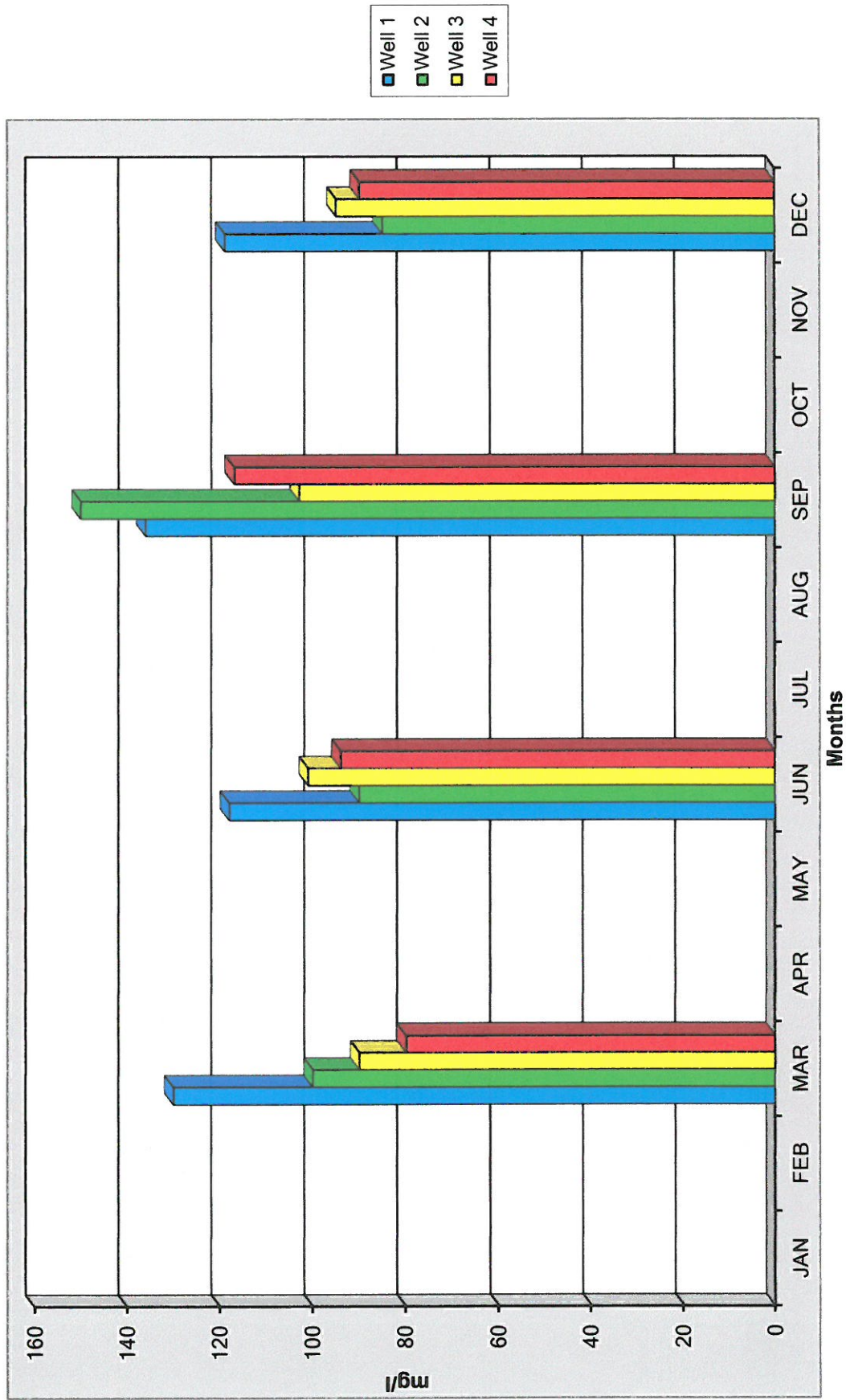
Frequency	Annual			
Sample Type	A	A	A	
Sample	Purgable Halocarbons *	Purgable Aromatics	Base/Neutral/Acid Extractable Organics	Well Number
Units	ug/l	ug/l	ug/l	
Month				
September	B	B	B	1
September	B	B	B	2
September	B	B	B	3
September	B	B	B	4

A - Monitoring Requirement

B - For Sample Results see Appendix "B"

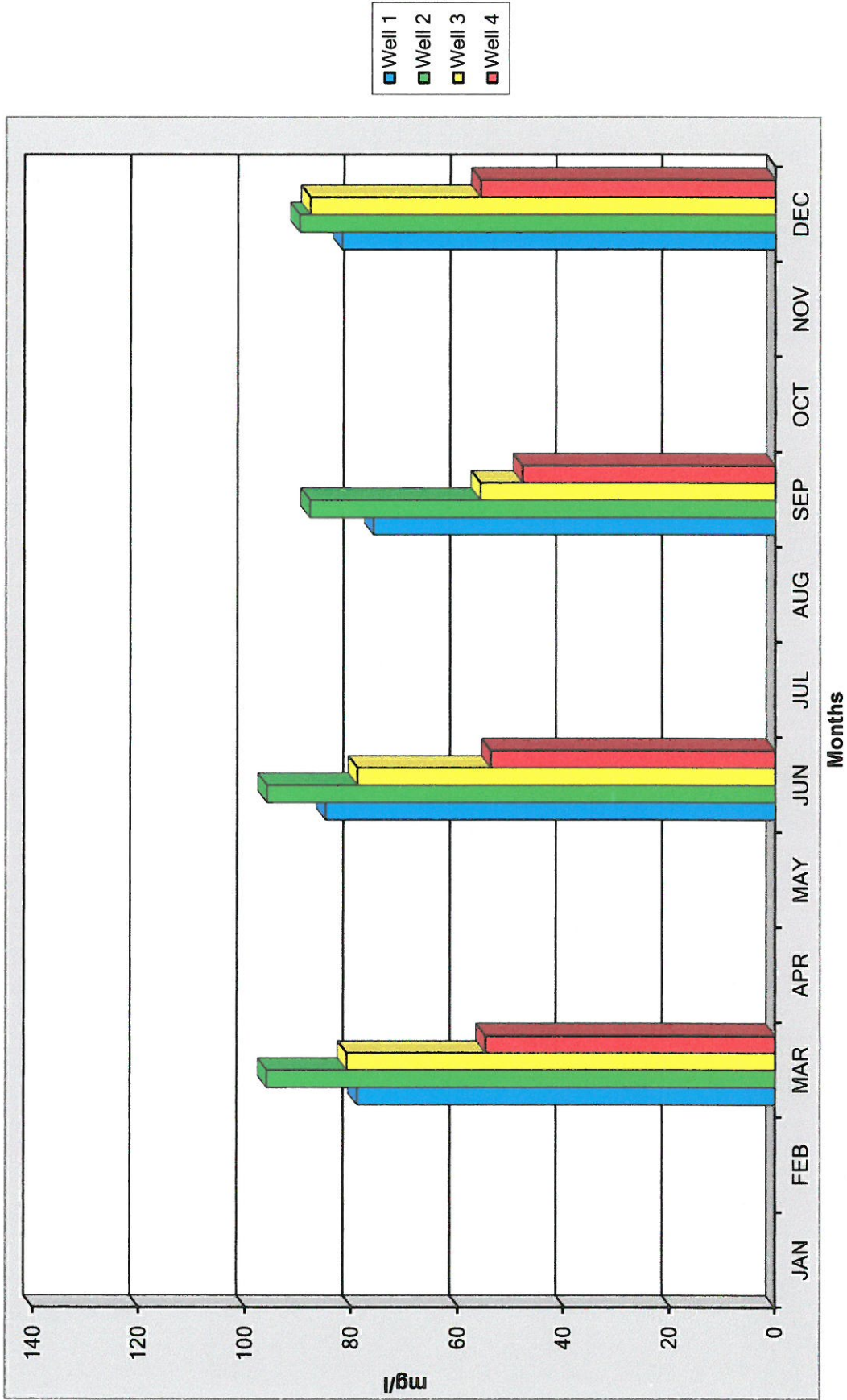
* Analysis shall be conducted for those substances included on the EPA list of priority pollutants and all other toxic substances known to be discharged to the Discharger's system using EPA test methods 603, 608, 624, 625 and other appropriate tests for heavy metals.

CRESTLINE SANITATION DISTRICT
 Pasture Monitoring Well Testing - Sulfate - 2016

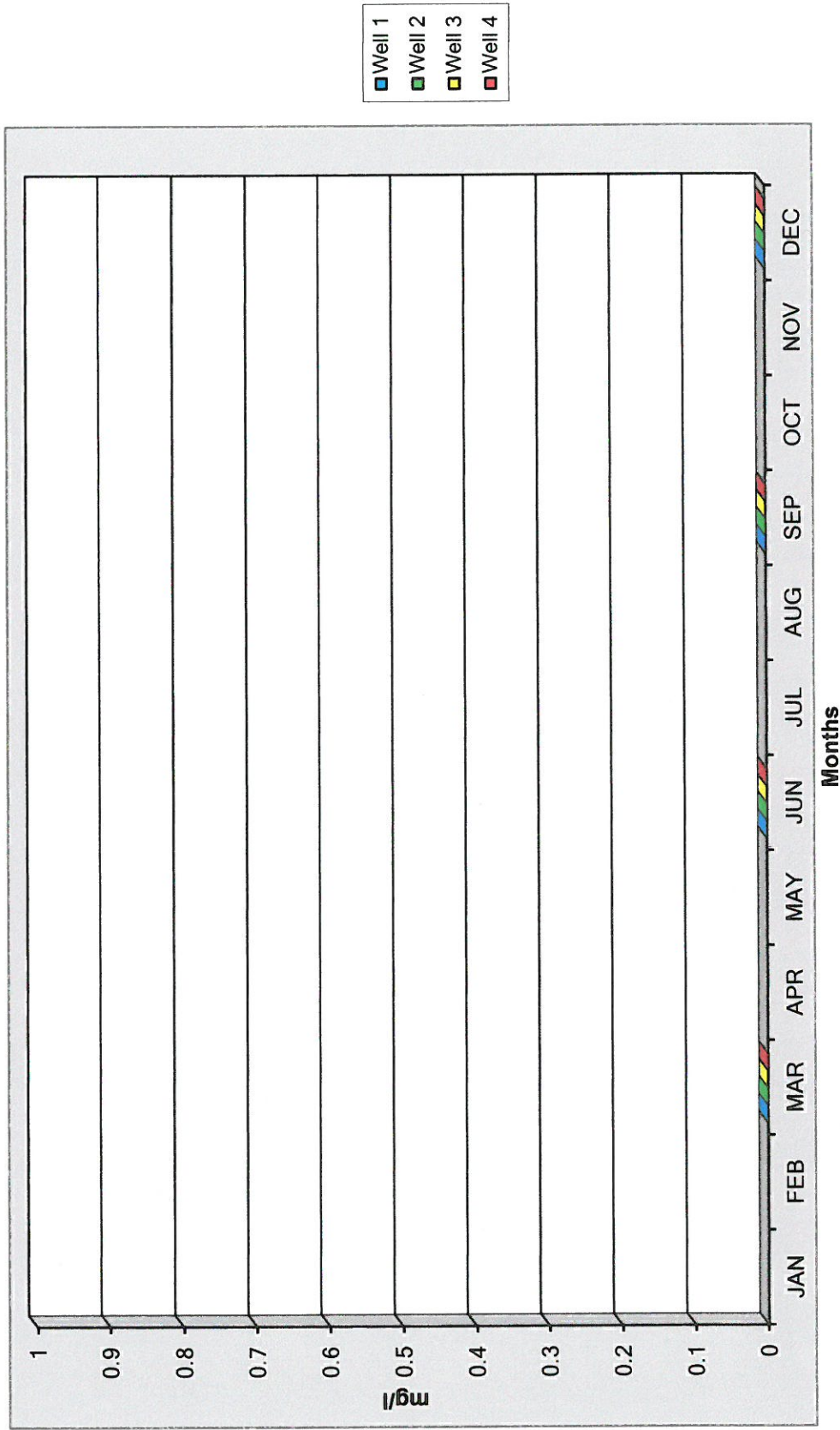


CRESTLINE SANITATION DISTRICT

Pasture Monitoring Well Testing - Sodium - 2016

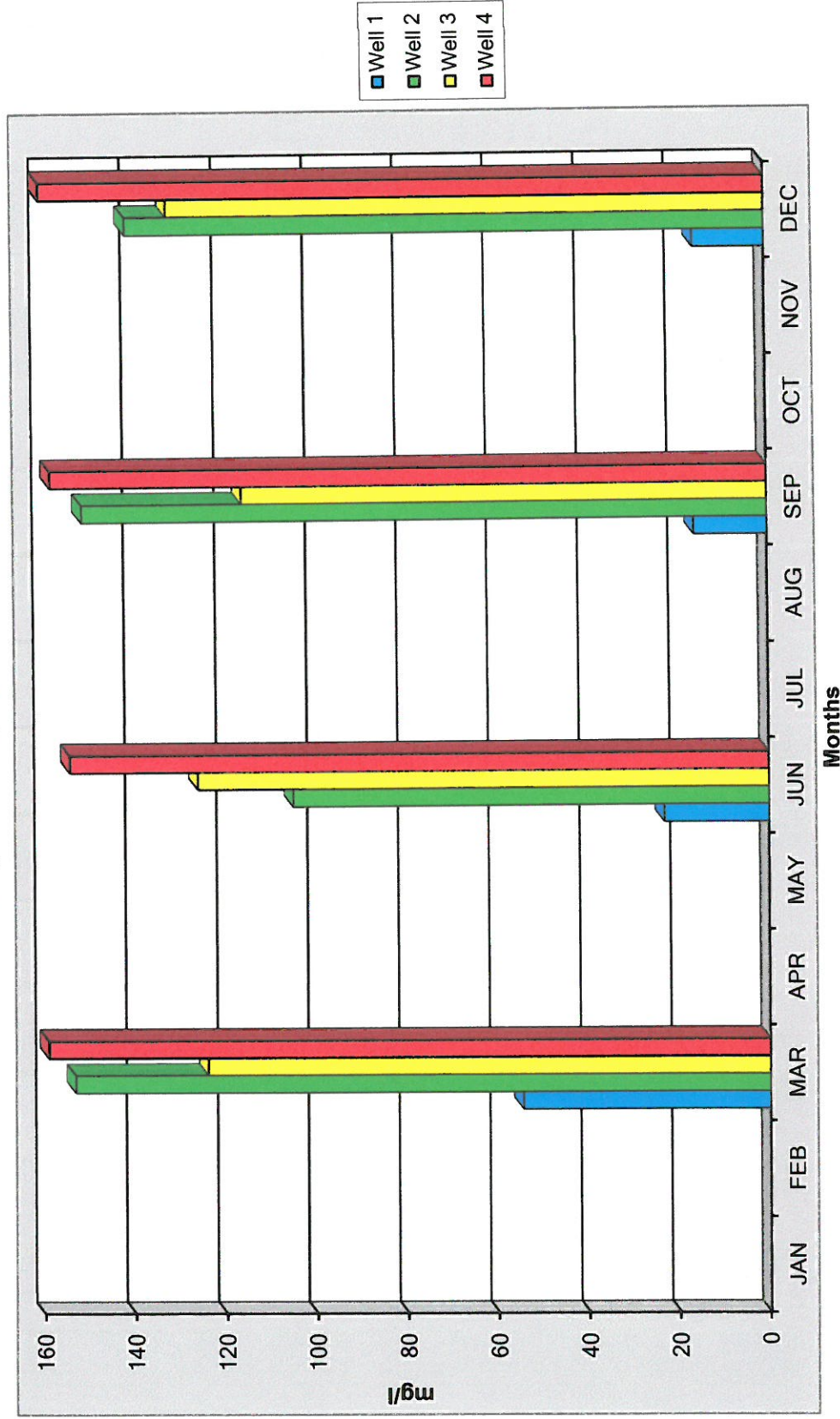


CRESTLINE SANITATION DISTRICT
Pasture Monitoring Well Testing - MBAS - 2016



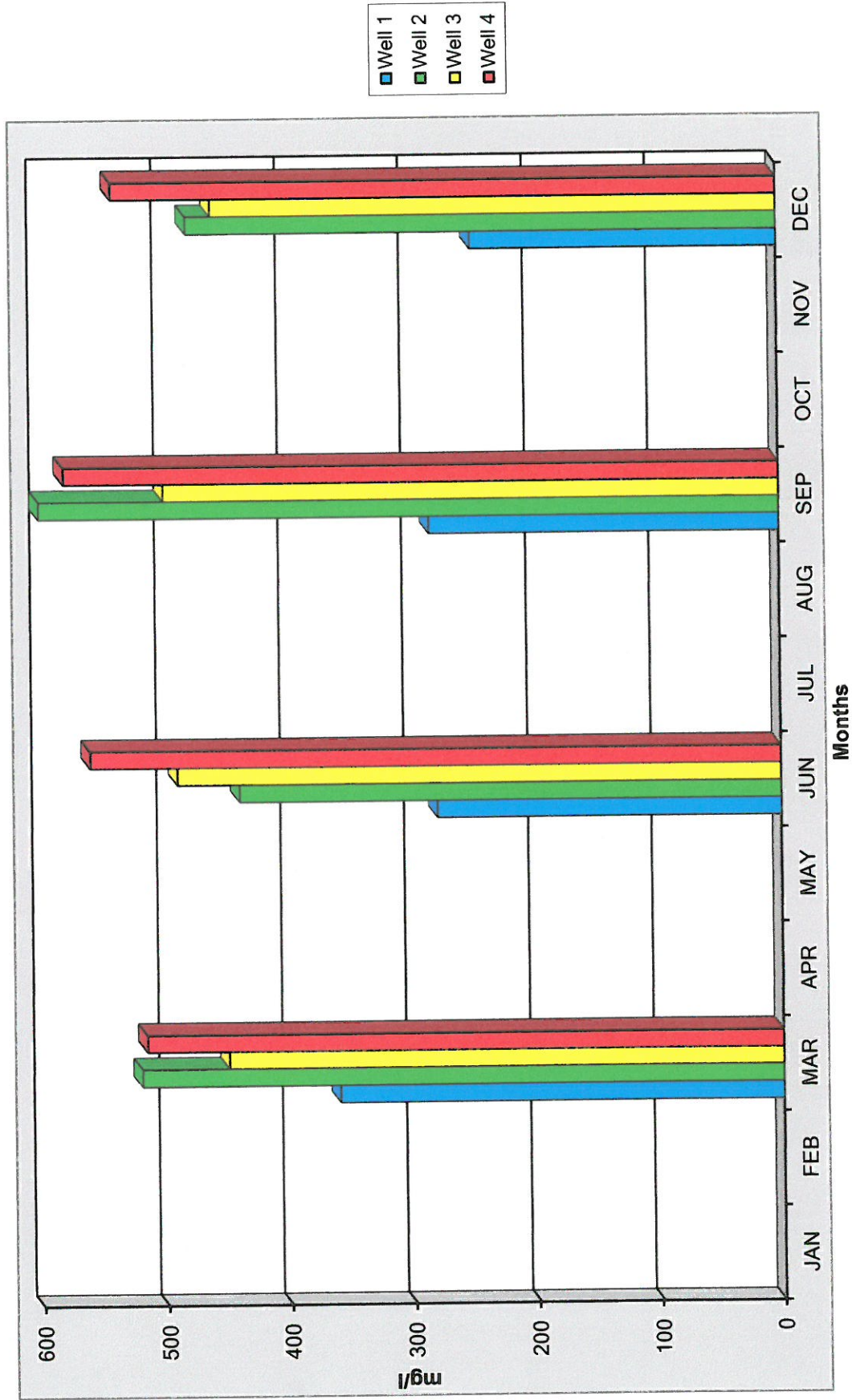
CRESTLINE SANITATION DISTRICT

Pasture Monitoring Well Testing - Chloride - 2016

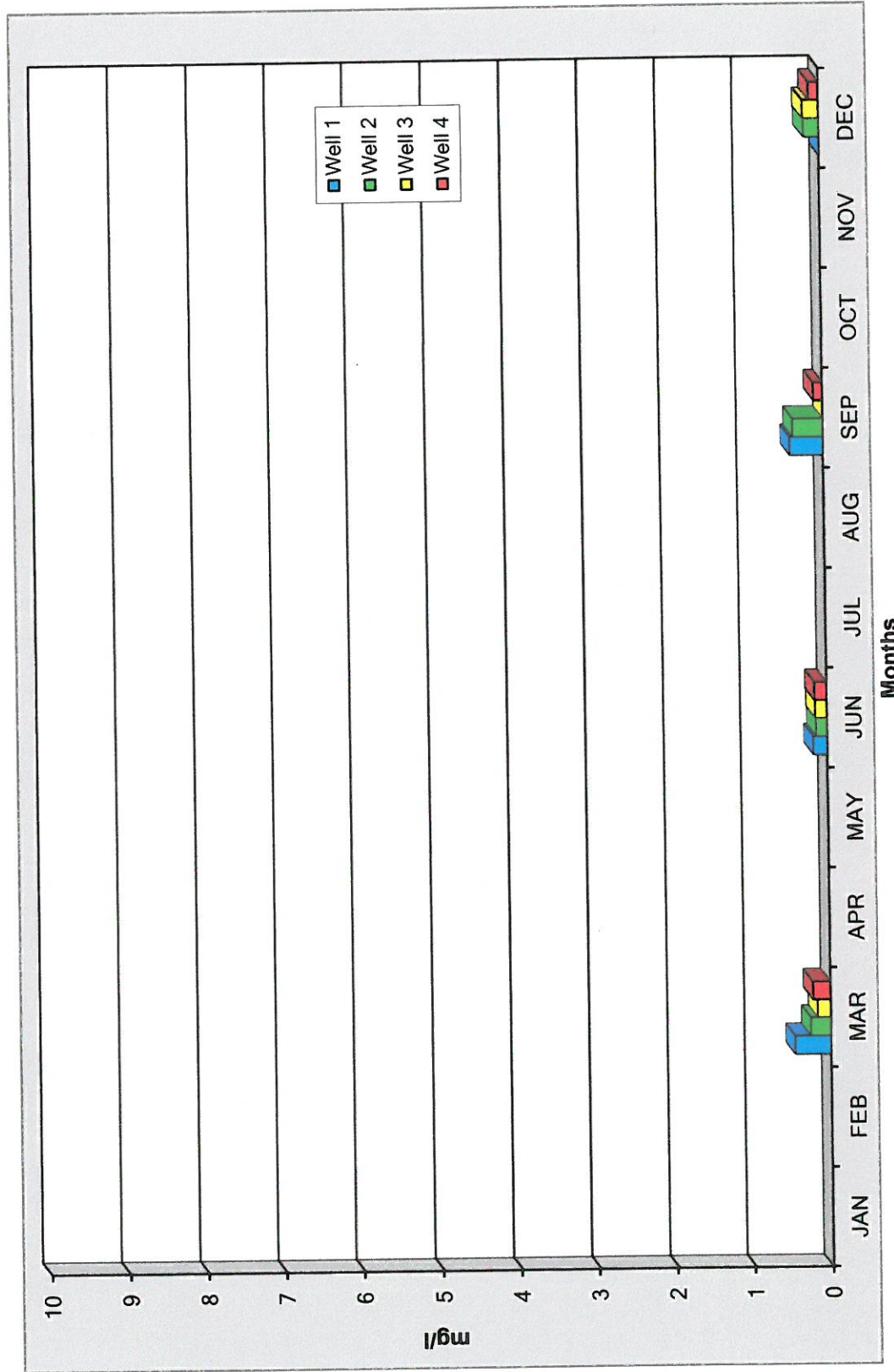


CRESTLINE SANITATION DISTRICT

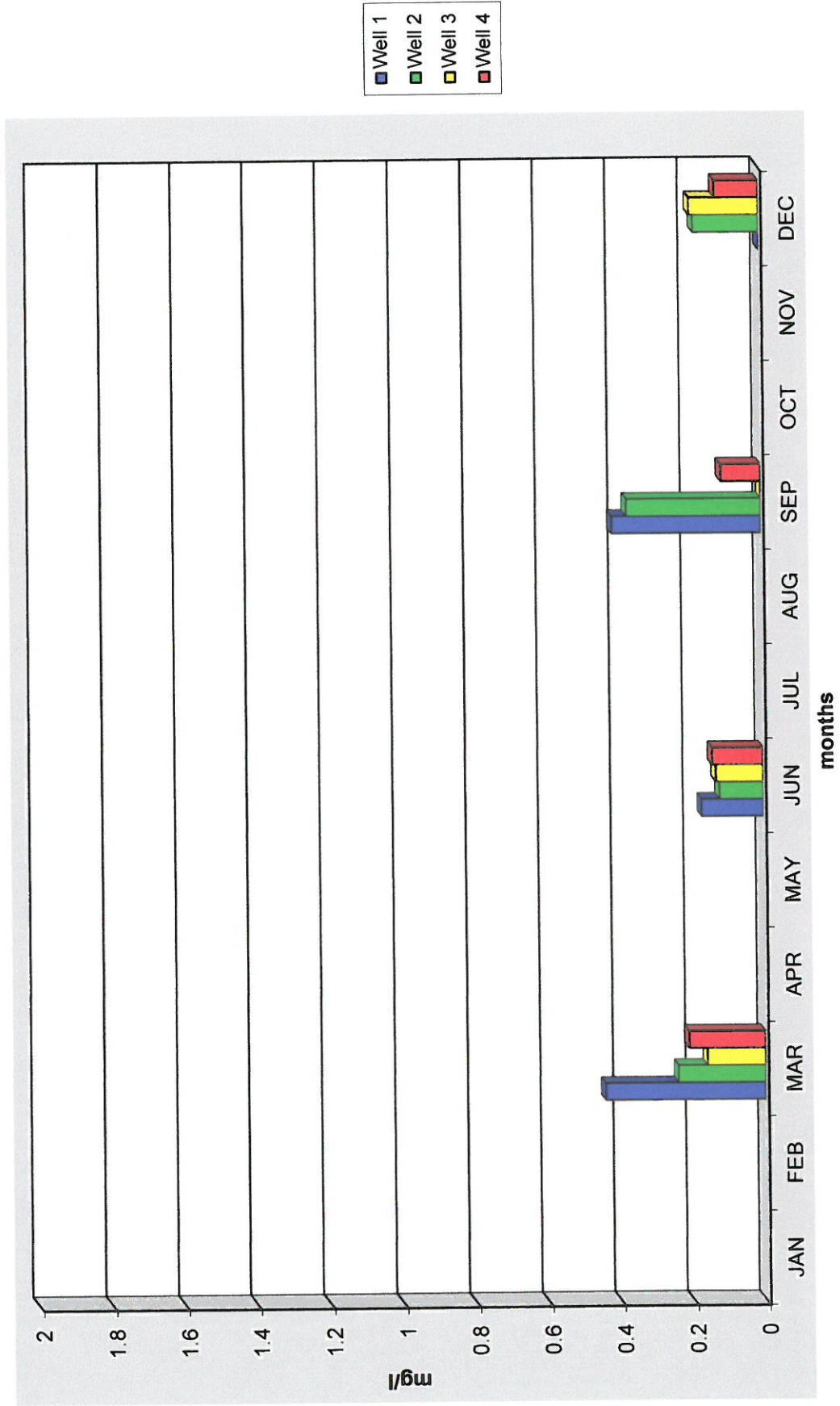
Pasture Monitoring Well Testing - TDS - 2016



CRESTLINE SANITATION DISTRICT
 Pasture Monitoring Well Testing - TKN - 2016

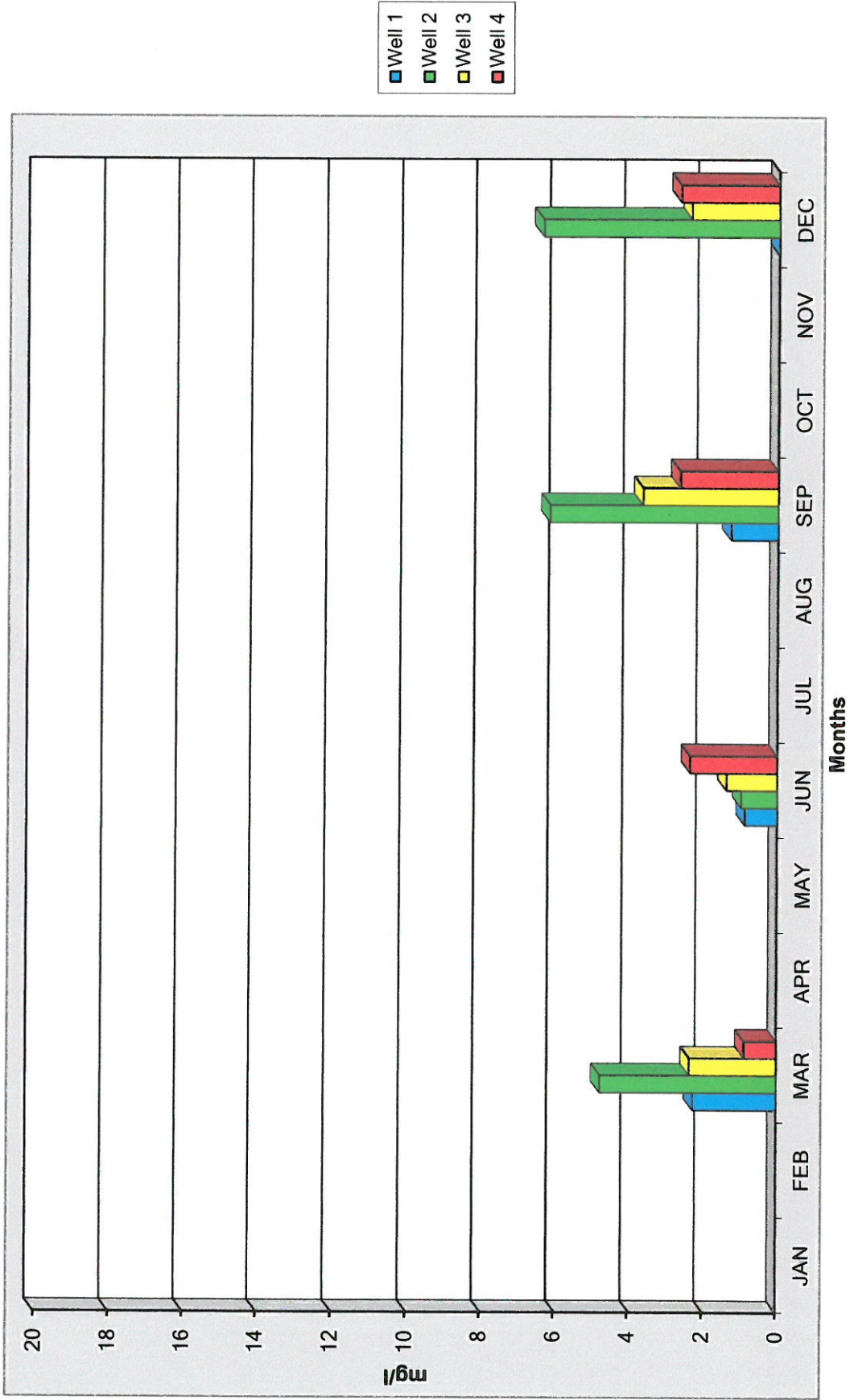


CRESTLINE SANITATION DISTRICT
 Pasture Monitoring Well Testing - NH3-N - 2016



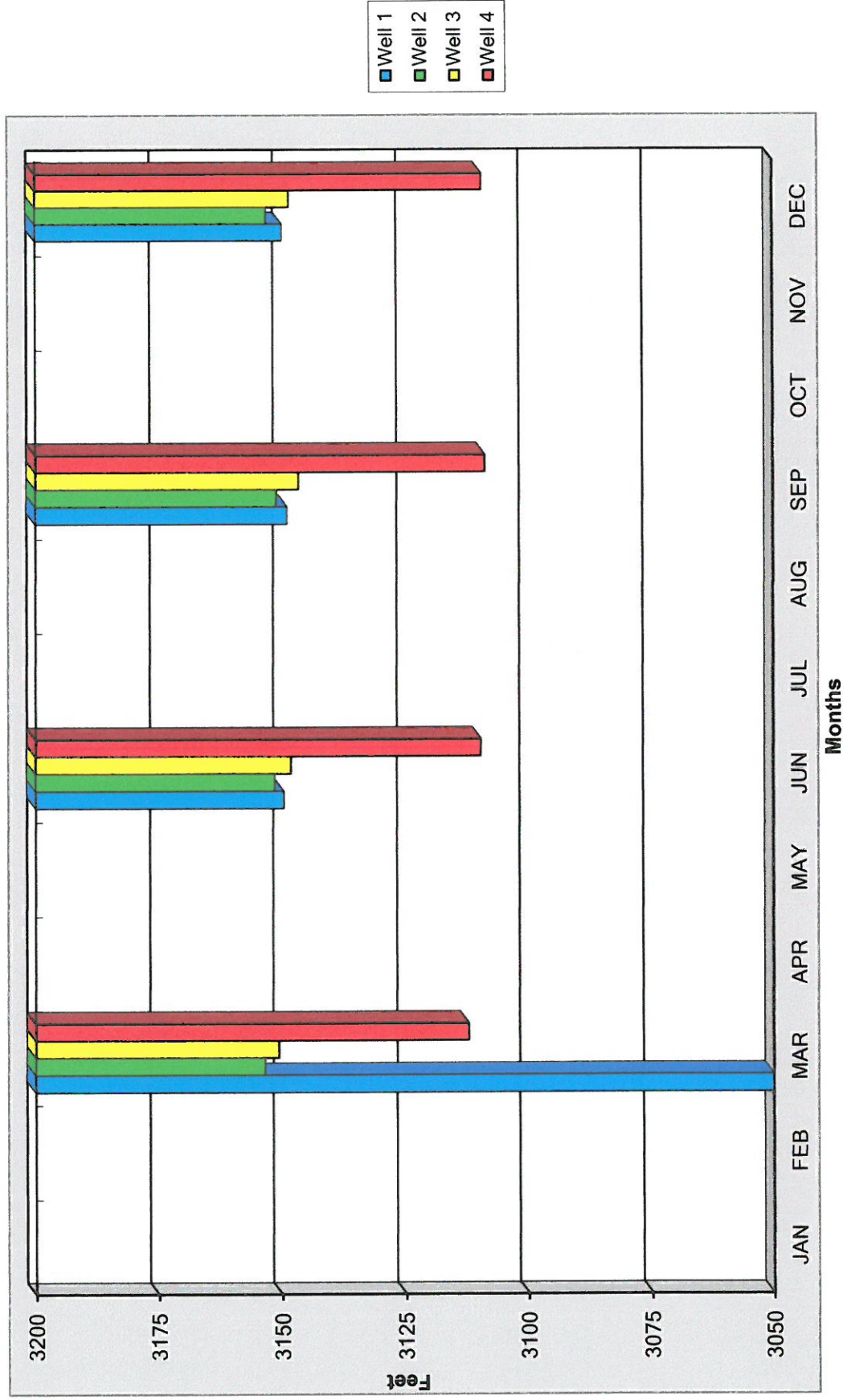
CRESTLINE SANITATION DISTRICT

Pasture Monitoring Well Testing - NO3-N - 2016



CRESTLINE SANITATION DISTRICT

Pasture Monitoring Well Testing - Elevation of Water Depth - 2016



CRESTLINE SANITATION DISTRICT
Semi Annual Supply Water Monitoring Data

Year: **2016**

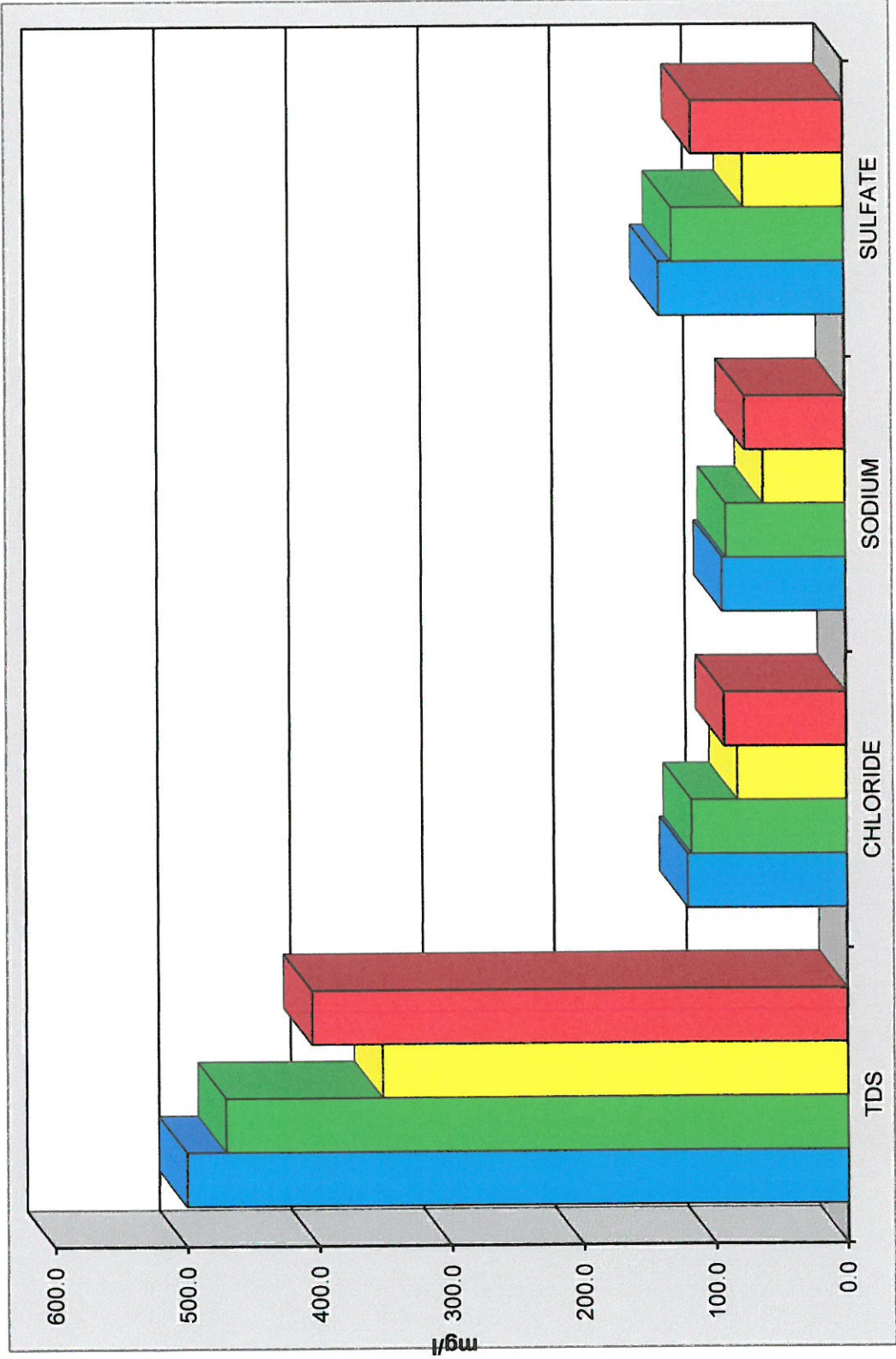
Sample Dates	Frequency	Semi-Annual	Semi-Annual	Semi-Annual	Semi-Annual	Semi-Annual	Semi-Annual	Total Flow in MG	Local Water	Purchased Water
Sample Type	Maximum	Mean/Minimum	Median	TDS	Chloride	Sodium	Sulfate			
Crestline Sanitation District (Final Effluent)	MG/L	500.0	120.0	93.0	140.0	98.58				
	POUNDS	411,079	98,659	76,461	115,102					
Crestline Lake Arrowhead Water Agency (Silverwood)	MG/L	470	117.0	90.0	130.0	5.25				
	POUNDS	20,579	5,123	3,941	5,692					
Crestline Village Water District	MG/L	352	82.4	62.0	76.0	86.90	33.70	53.13		
	POUNDS	255,111	59,719	44,934	55,081					
Valley of Enchantment Mutual Water Company	MG/L	405	92.2	76.0	115.0	46.50	10.06	36.44		
	POUNDS	157,063	35,756	29,474	44,598					
Calculated Constituent Concentrations	MG/L	374.2	87.0	67.8	91.1	138.7				
	POUNDS	432,753	100,598	78,348	105,371					

"CALCULATED CONSTITUENT CONCENTRATIONS" above, were mathematically calculated on samples collected from the three water purveyors contributing to the sewer system.

Samples collected in March

Flow Dates : October 1, 2015 thru March 31, 2016

CRESTLINE SANITATION DISTRICT
 Supply Water Testing - March, 2016



Sample Collected in March, 2016

CRESTLINE SANITATION DISTRICT
Semi Annual Supply Water Monitoring Data

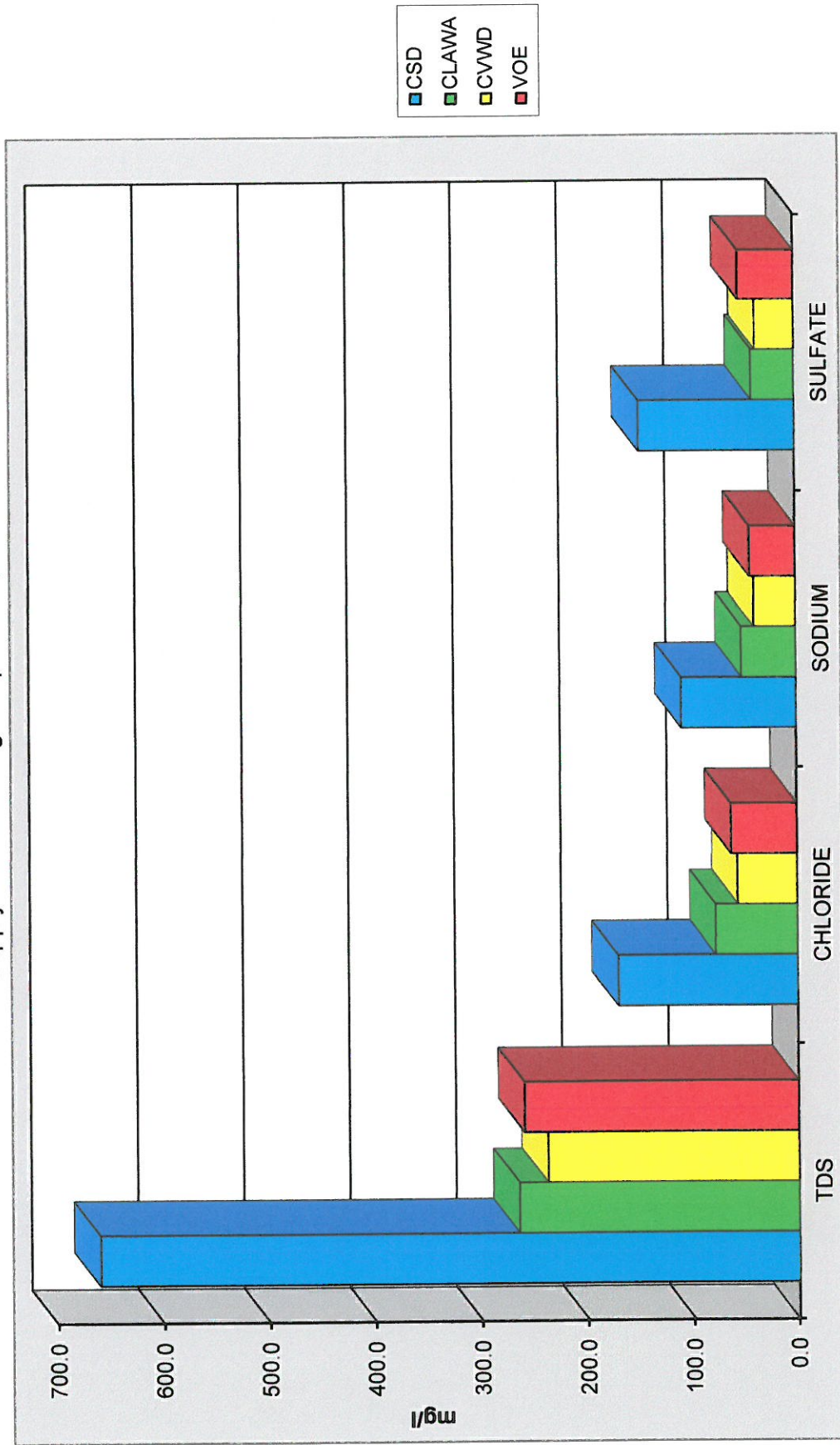
Year: **2016**

Sample Dates	Frequency	Semi-Annual		Semi-Annual	Semi-Annual	Semi-Annual	Semi-Annual	Total Flow in MG	Local Water	Purchased Water
		Violations	Monitor							
Crestline Sanitation District (Final Effluent)	MG/L	660.0	171.0	110.0	149.0	85.91				
	POUNDS	472,883	122,520	78,814	106,757					
Crestline Lake Arrowhead Water Agency (Silverwood)	MG/L	265.0	78.4	52.0	41.0	12.78				
	POUNDS	28,245	8,356	5,542	4,370					
Crestline Village Water District	MG/L	238.0	56.8	40.0	37.5	109.80		33.88	76.00	
	POUNDS	217,944	52,014	36,629	34,340					
Valley of Enchantment Mutual Water Company	MG/L	260.0	63.4	44.0	53.4	24.95		5.56	19.39	
	POUNDS	54,102	13,192	9,156	11,112					
Calculated Constituent Concentrations	MG/L	244.1	59.8	41.7	40.5	147.6				
	POUNDS	300,483	73,613	51,332	49,855					

"CALCULATED CONSTITUENT CONCENTRATIONS" above, were mathematically calculated on samples collected from the three water purveyors contributing to the sewer system.

Samples collected in SEPTEMBER Flow Dates : April 1, 2016 thru September 30, 2016

CRESTLINE SANITATION DISTRICT
 Supply Water Testing - September, 2016



CRESTLINE SANITATION DISTRICT

ANNUAL REPORT

Final Effluent Disposal Site (Las Flores) Constituent Violations

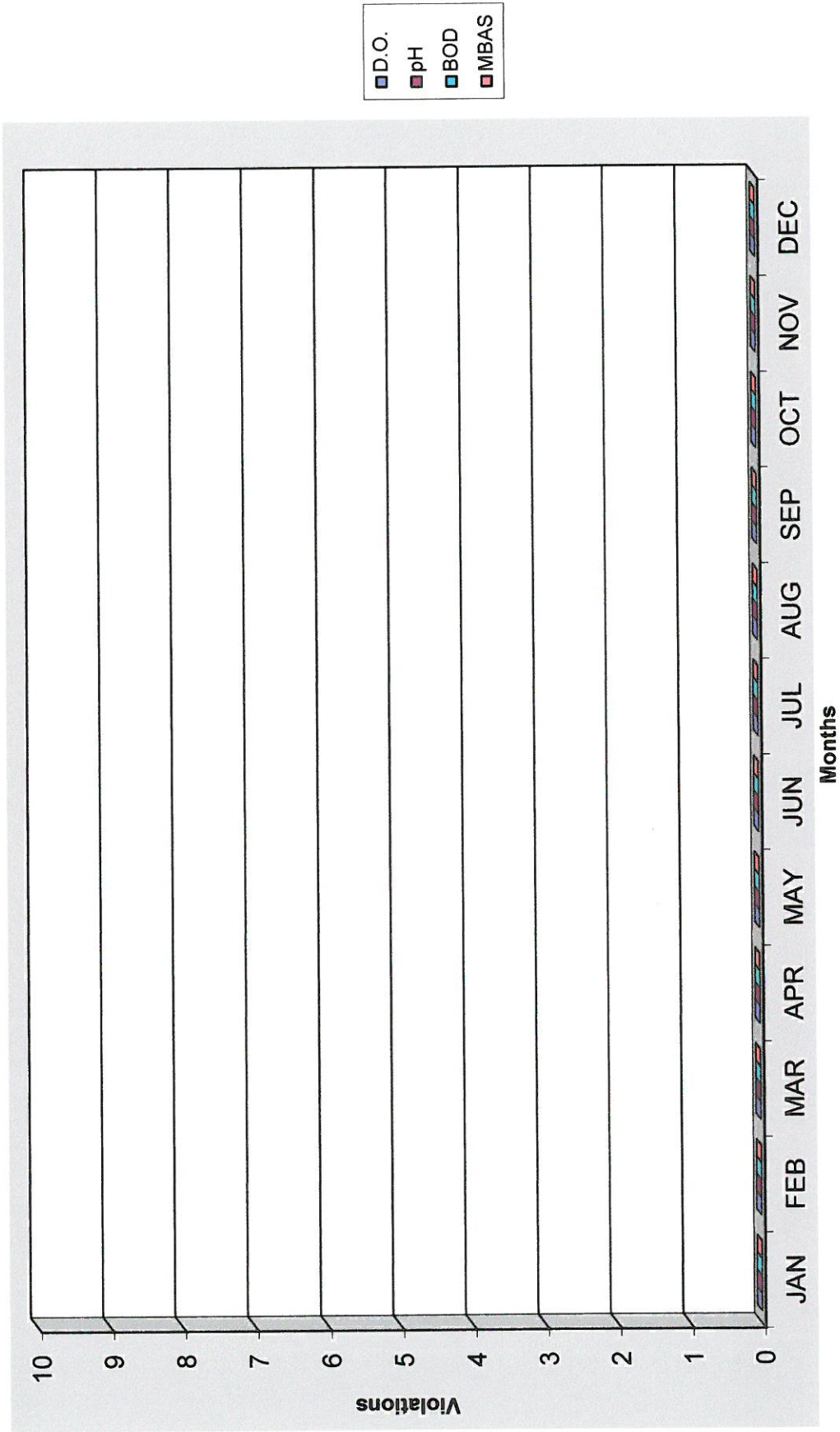
Year: **2016**

Frequency	2 week	weekly	weekly	2 month	2 month	2 month	2 month	2 month	monthly	monthly
	D/M	D/M	D/M	D/M	D/M	D/M	D/M	D/M	M	M
Violations										
Sample Type	D/M	D/M	D/M	D/M	D/M	D/M	D/M	D/M	M	M
Maximum		0.5 ml/l			< 9	45.0	2.0			
Mean/Min.*	23.0*		> 1			30.0	1.0			
	Total Coliform	Settleable Solids	D.O.	pH	BOD	COD	MBAS	Oil & Grease	TKN	NO3-N
	MPN	mg/l	mg/l		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
January	-	-	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-	-	-	-
April	-	-	-	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-	-	-	-
July	-	-	-	-	-	-	-	-	-	-
August	-	-	-	-	-	-	-	-	-	-
September	-	-	-	-	-	-	-	-	-	-
October	-	-	-	-	-	-	-	-	-	-
November	-	-	-	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-	-	-	-
Year Total	0	0	0	0	0	0	0	0	0	0

D - Has Effluent / Discharge Limitations

M - Has Effluent Monitoring Requirements

CRESTLINE SANITATION DISTRICT
Final Effluent Constituent Violations - 2016



CRESTLINE SANITATION DISTRICT

ANNUAL REPORT

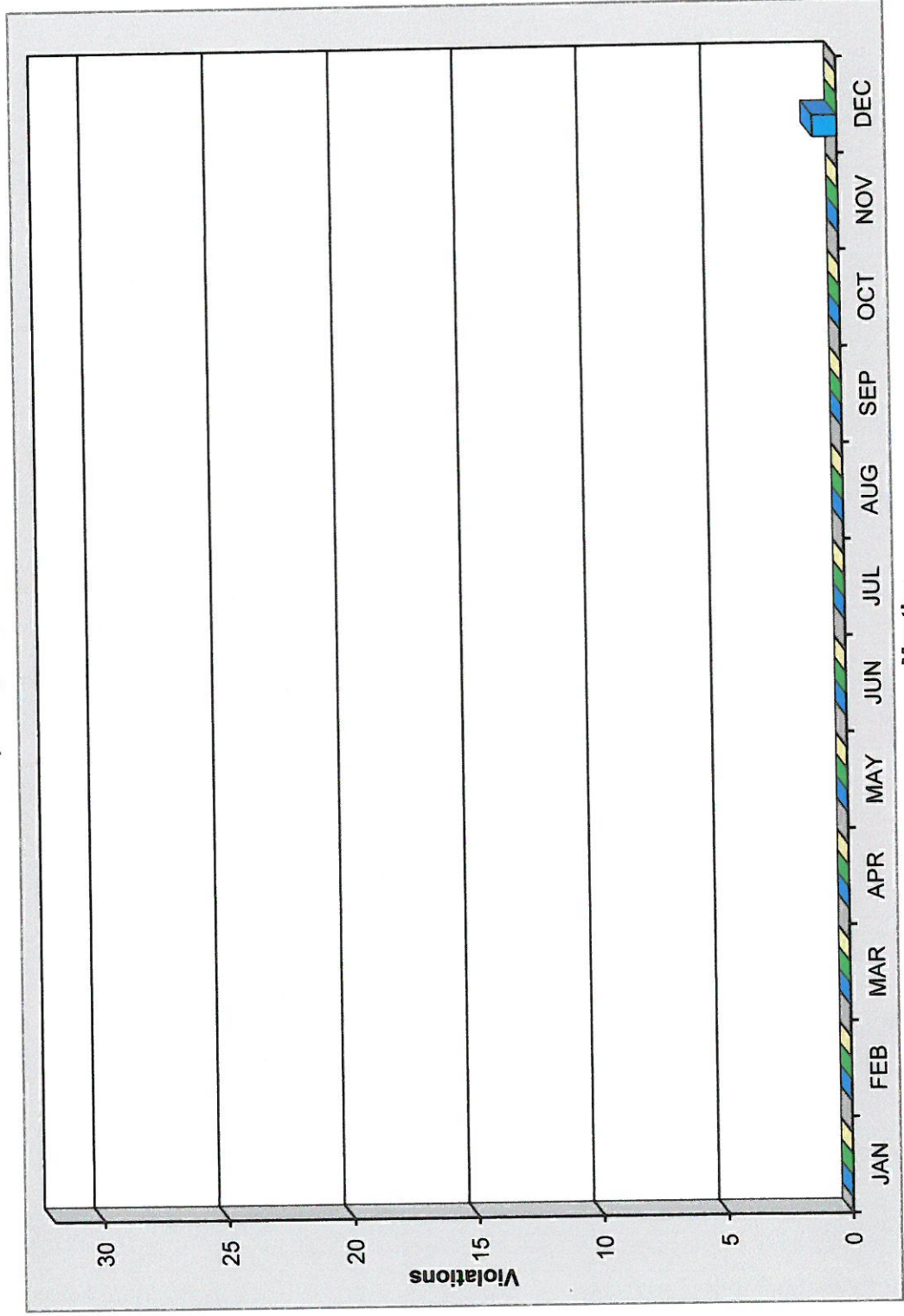
Treatment Facilities Flow Violations

Year: 2016

Facility name	Huston Plant		Seeley Plant		Cleghorn Plant	
Reading	daily	daily	daily	daily	daily	
Average	monthly		monthly		monthly	
Design limits	design 0.7 mg/d	maximum 2.50 mg	design 0.5 mg/d	maximum 1.00 mg	design 0.2 mg/d	maximum 0.4 mg
	design capacity	instantaneous peak	design capacity	instantaneous peak	design capacity	instantaneous peak
Months	Huston violations	HC peak violations	Seeley violations	SC peak violations	Cleghorn violations	CH peak violations
January	-	-	-	-	-	-
February	-	-	-	-	-	-
March	-	-	-	-	-	-
April	-	-	-	-	-	-
May	-	-	-	-	-	-
June	-	-	-	-	-	-
July	-	-	-	-	-	-
August	-	-	-	-	-	-
September	-	-	-	-	-	-
October	-	-	-	-	-	-
November	-	-	-	-	-	-
December	1	-	-	-	-	-
Year Total	1	0	0	0	0	0

CRESTLINE SANITATION DISTRICT

Treatment Facility Design Capacity Flow Violations - 2016



■ Huston Creek
■ Seeley Creek
■ Cleghorn

CRESTLINE SANITATION DISTRICT
 Treatment Facility Instantaneous Flow Violations - 2016



CRESTLINE SANITATION DISTRICT

ANNUAL REPORT

APPENDIX "A"

Sample Results
Las Flores Stand Pipe
District Final Effluent

Annual Testing

Tests Results for:
Purgable Organics
Base / Neutral / Acid Extractable Organics
Heavy Metals



Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Outfall Annual
Project Manager: Rick Dever

Reported:
09/13/16 12:25

Conventional Chemistry Parameters by APHA/EPA Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L.F. 9-1 (1609016-01) Liquid Sampled: 09/01/16 10:00 Received: 09/01/16 12:45									
Cyanide (total)	ND	0.0200	mg/L	1	B610205	09/02/16	09/02/16 17:07	EPA 335.2	
Phenolics	ND	0.0500	"	"	"	"	"	EPA 420.1	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Outfall Annual
Project Manager: Rick Dever

Reported:
09/13/16 12:25

Metals by EPA 200 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L.F. 9-1 (1609016-01) Liquid Sampled: 09/01/16 10:00 Received: 09/01/16 12:45									
Silver	ND	0.0050	mg/L	1	B610145	09/01/16	09/02/16 10:32	EPA 200.7	
Cadmium	ND	0.0090	"	"	"	"	"	"	
Chromium	ND	0.0070	"	"	"	"	"	"	
Copper	ND	0.042	"	"	"	"	"	"	
Nickel	ND	0.0050	"	"	"	"	"	"	
Lead	ND	0.0080	"	"	"	"	"	"	
Zinc	0.038	0.034	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Outfall Annual
Project Manager: Rick Dever

Reported:
09/13/16 12:25

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L.F. 9-1 (1609016-01) Liquid Sampled: 09/01/16 10:00 Received: 09/01/16 12:45									
HC < C8	ND	0.010	mg/L	1	B6H2338	09/02/16	09/06/16 15:55	EPA 8015B	
C8 <= HC < C9	ND	0.010	"	"	"	"	"	"	"
C9 <= HC < C10	ND	0.010	"	"	"	"	"	"	"
C10 <= HC < C11	ND	0.010	"	"	"	"	"	"	"
C11 <= HC < C12	ND	0.010	"	"	"	"	"	"	"
C12 <= HC < C14	ND	0.010	"	"	"	"	"	"	"
C14 <= HC < C16	ND	0.010	"	"	"	"	"	"	"
C16 <= HC < C18	ND	0.010	"	"	"	"	"	"	"
C18 <= HC < C20	ND	0.010	"	"	"	"	"	"	"
C20 <= HC < C24	ND	0.010	"	"	"	"	"	"	"
C24 <= HC < C28	ND	0.010	"	"	"	"	"	"	"
C28 <= HC < C32	ND	0.010	"	"	"	"	"	"	"
HC >= C32	ND	0.010	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C7-C36)	ND	0.050	"	"	"	"	"	"	"
Surrogate: <i>o</i> -Terphenyl		80.4 %	60-175		"	"	"	"	"

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Outfall Annual
Project Manager: Rick Dever

Reported:
09/13/16 12:25

Volatile Organics by EPA Method 624

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L.F. 9-1 (1609016-01) Liquid Sampled: 09/01/16 10:00 Received: 09/01/16 12:45									
Acrolein	ND	5.0	µg/L	1	B610203	09/02/16	09/06/16 08:29	EPA 624	
Acrylonitrile	ND	2.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	4.7	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	1.0	"	"	"	"	"	"	
Chloroform	41	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		106 %		86-118	"	"	"	"	
Surrogate: Toluene-d8		91.4 %		88-110	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Outfall Annual
Project Manager: Rick Dever

Reported:
09/13/16 12:25

Volatile Organics by EPA Method 624

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L.F. 9-1 (1609016-01) Liquid Sampled: 09/01/16 10:00 Received: 09/01/16 12:45									
<i>Surrogate: 4-Bromofluorobenzene</i>		94.4 %	86-115		B610203	09/02/16	09/06/16 08:29	EPA 624	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Outfall Annual
 Project Manager: Rick Dever

Reported:
 09/13/16 12:25

Semivolatile Organics by EPA Method 625

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
L.F. 9-1 (1609016-01) Liquid Sampled: 09/01/16 10:00 Received: 09/01/16 12:45									
Acenaphthene	ND	5.0	µg/L	1	B6H2337	09/02/16	09/06/16 16:29	EPA 625	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzidine	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.0	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	5.0	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	5.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.0	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.0	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	5.0	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.0	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.0	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	
Fluorene	ND	5.0	"	"	"	"	"	"	
Hexachlorobenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	5.0	"	"	"	"	"	"	
Hexachloroethane	ND	5.0	"	"	"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Outfall Annual
Project Manager: Rick Dever

Reported:
09/13/16 12:25

Semivolatile Organics by EPA Method 625

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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L.F. 9-1 (1609016-01) Liquid Sampled: 09/01/16 10:00 Received: 09/01/16 12:45

Indeno (1,2,3-cd) pyrene	ND	5.0	µg/L	1	B6H2337	09/02/16	09/06/16 16:29	EPA 625	
Isophorone	ND	5.0	"	"	"	"	"	"	
2-Methyl-4,6-dinitrophenol	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.0	"	"	"	"	"	"	
2-Nitrophenol	ND	1.0	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	5.0	"	"	"	"	"	"	
Diphenylamine	ND	5.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	5.0	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Phenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: 2-Fluorophenol</i>		76.7 %	25-121		"	"	"	"	
<i>Surrogate: Phenol-d6</i>		71.3 %	24-113		"	"	"	"	
<i>Surrogate: Nitrobenzene-d5</i>		81.3 %	23-120		"	"	"	"	
<i>Surrogate: 2-Fluorobiphenyl</i>		83.9 %	30-115		"	"	"	"	
<i>Surrogate: 2,4,6-Tribromophenol</i>		66.7 %	19-122		"	"	"	"	
<i>Surrogate: Terphenyl-d14</i>		84.3 %	18-137		"	"	"	"	

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CRESTLINE SANITATION DISTRICT

ANNUAL REPORT

APPENDIX "B"

Sample Results
Ground Water Monitoring Wells
Final Effluent Disposal Site

Annual Testing

Tests Results for:
Purgable Halocarbons and Aromatics
Base / Neutral / Acid Extractable Organics

Special Quarterly Testing

Disinfection Biproducts
Trihalomethanes (EPA Method 524.2)
Haloacetic Acids (EPA Method 552.2)



Crestline Sanitation District P.O. Box 3395 Crestline CA, 92325-3395	Project: NA Project Number: Las Flores Monitor Well #1 Project Manager: Rick Dever	Reported: 09/14/16 11:24
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Conventional Chemistry Parameters by APHA/EPA Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW1-9-8 (1609100-01) Liquid Sampled: 09/08/16 10:30 Received: 09/08/16 13:30									
Ammonia as N	0.410	0.100	mg/L	1	B610928	09/08/16	09/09/16 16:31	SM 4500-NH3	
Chloride	16.2	0.500	"	"	"	"	"	SM 4500-Cl- B	
Methylene Blue Active Substances	ND	0.100	"	"	"	"	"	EPA 425.1	
Nitrate as N	1.30	0.0200	"	"	"	"	"	EPA 353.3	
Sulfate as SO4	136	0.500	"	"	"	"	"	EPA 375.4	
Total Dissolved Solids	285	1.00	"	"	"	"	"	EPA 160.1	
Total Kjeldahl Nitrogen	0.43	0.10	"	"	"	"	"	EPA 351.3	

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Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Well #1
 Project Manager: Rick Dever

Reported:
 09/14/16 11:24

Metals by EPA 200 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW1-9-8 (1609100-01) Liquid Sampled: 09/08/16 10:30 Received: 09/08/16 13:30									
Sodium	76	0.71	mg/L	1	B610924	09/09/16	09/09/16 20:06	EPA 200.7	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Well #1
 Project Manager: Rick Dever

Reported:
 09/14/16 11:24

Trihalomethanes by EPA Method 524.2

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW1-9-8 (1609100-01) Liquid Sampled: 09/08/16 10:30 Received: 09/08/16 13:30									
Bromodichloromethane	ND	0.500	µg/L	1	B611234	09/09/16	09/12/16 09:26	EPA 524.2	
Bromoform	ND	0.500	"	"	"	"	"	"	
Chloroform	ND	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.500	"	"	"	"	"	"	
Total Trihalomethanes	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		100 %	86-118		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		91.4 %	88-110		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		87.0 %	86-115		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Crestline Sanitation District P.O. Box 3395 Crestline CA, 92325-3395	Project: NA Project Number: Las Flores Monitor Well #1 Project Manager: Rick Dever	Reported: 09/14/16 11:24
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Haloacetic Acids (GC/ECD) by EPA Method 552.2

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW1-9-8 (1609100-01) Liquid Sampled: 09/08/16 10:30 Received: 09/08/16 13:30

Monochloroacetic Acid	ND	2.00	µg/L	1	B611236	09/12/16	09/13/16 09:22	EPA 552.2	
Dichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Trichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Monobromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Dibromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Total Haloacetic Acids	ND	1.00	"	"	"	"	"	"	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		100 %		60-150	"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #1
Project Manager: Rick Dever

Reported:
09/14/16 11:24

Volatile Organics by EPA Method 624

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW1-9-8 (1609100-01) Liquid Sampled: 09/08/16 10:30 Received: 09/08/16 13:30									
Acrolein	ND	5.0	µg/L	1	B610919	09/09/16	09/12/16 08:40	EPA 624	
Acrylonitrile	ND	2.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		98.0 %	86-118		"	"	"	"	
Surrogate: Toluene-d8		91.4 %	88-110		"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #1
Project Manager: Rick Dever

Reported:
09/14/16 11:24

Volatile Organics by EPA Method 624

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW1-9-8 (1609100-01) Liquid Sampled: 09/08/16 10:30 Received: 09/08/16 13:30									
<i>Surrogate: 4-Bromofluorobenzene</i>		106 %	86-115		B610919	09/09/16	09/12/16 08:40	EPA 624	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Well #1
 Project Manager: Rick Dever

Reported:
 09/14/16 11:24

Semivolatile Organics by EPA Method 625

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW1-9-8 (1609100-01) Liquid Sampled: 09/08/16 10:30 Received: 09/08/16 13:30									
Acenaphthene	ND	5.0	µg/L	1	B6H2337	09/09/16	09/12/16 17:04	EPA 625	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzidine	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.0	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	5.0	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	5.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.0	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.0	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	5.0	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.0	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.0	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	
Fluorene	ND	5.0	"	"	"	"	"	"	
Hexachlorobenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	5.0	"	"	"	"	"	"	
Hexachloroethane	ND	5.0	"	"	"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #1
Project Manager: Rick Dever

Reported:
09/14/16 11:24

Semivolatile Organics by EPA Method 625

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW1-9-8 (1609100-01) Liquid **Sampled: 09/08/16 10:30** **Received: 09/08/16 13:30**

Indeno (1,2,3-cd) pyrene	ND	5.0	µg/L	1	B6H2337	09/09/16	09/12/16 17:04	EPA 625	
Isophorone	ND	5.0	"	"	"	"	"	"	
2-Methyl-4,6-dinitrophenol	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.0	"	"	"	"	"	"	
2-Nitrophenol	ND	1.0	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	5.0	"	"	"	"	"	"	
Diphenylamine	ND	5.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	5.0	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Phenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: 2-Fluorophenol</i>		74.7 %		25-121	"	"	"	"	
<i>Surrogate: Phenol-d6</i>		67.3 %		24-113	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5</i>		83.8 %		23-120	"	"	"	"	
<i>Surrogate: 2-Fluorobiphenyl</i>		74.4 %		30-115	"	"	"	"	
<i>Surrogate: 2,4,6-Tribromophenol</i>		68.7 %		19-122	"	"	"	"	
<i>Surrogate: Terphenyl-d14</i>		82.7 %		18-137	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Well #2
 Project Manager: Rick Dever

Reported:
 09/14/16 11:24

Conventional Chemistry Parameters by APHA/EPA Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW2-9-8 (1609101-01) Liquid Sampled: 09/08/16 11:00 Received: 09/08/16 13:30									
Ammonia as N	0.370	0.100	mg/L	1	B6I0928	09/08/16	09/09/16 16:31	SM 4500-NH3	
Chloride	151	0.500	"	"	"	"	"	SM 4500-Cl- B	
Methylene Blue Active Substances	ND	0.100	"	"	"	"	"	EPA 425.1	
Nitrate as N	6.20	0.0200	"	"	"	"	"	EPA 353.3	
Sulfate as SO4	150	0.500	"	"	"	"	"	EPA 375.4	
Total Dissolved Solids	610	1.00	"	"	"	"	"	EPA 160.1	
Total Kjeldahl Nitrogen	0.39	0.10	"	"	"	"	"	EPA 351.3	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #2
Project Manager: Rick Dever

Reported:
09/14/16 11:24

Metals by EPA 200 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW2-9-8 (1609101-01) Liquid Sampled: 09/08/16 11:00 Received: 09/08/16 13:30									
Sodium	88	0.71	mg/L	1	B610924	09/09/16	09/09/16 20:06	EPA 200.7	

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Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Well #2
 Project Manager: Rick Dever

Reported:
 09/14/16 11:24

Trihalomethanes by EPA Method 524.2

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW2-9-8 (1609101-01) Liquid Sampled: 09/08/16 11:00 Received: 09/08/16 13:30									
Bromodichloromethane	ND	0.500	µg/L	1	B611234	09/09/16	09/12/16 09:26	EPA 524.2	
Bromoform	ND	0.500	"	"	"	"	"	"	
Chloroform	2.17	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.500	"	"	"	"	"	"	
Total Trihalomethanes	2.17	0.500	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		112 %	86-118		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		109 %	88-110		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.6 %	86-115		"	"	"	"	

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Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Well #2
 Project Manager: Rick Dever

Reported:
 09/14/16 11:24

Haloacetic Acids (GC/ECD) by EPA Method 552.2

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW2-9-8 (1609101-01) Liquid Sampled: 09/08/16 11:00 Received: 09/08/16 13:30									
Monochloroacetic Acid	ND	2.00	µg/L	1	B611236	09/12/16	09/13/16 09:22	EPA 552.2	
Dichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Trichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Monobromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Dibromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Total Haloacetic Acids	ND	1.00	"	"	"	"	"	"	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		86.8 %	60-150		"	"	"	"	

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Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Well #2
 Project Manager: Rick Dever

Reported:
 09/14/16 11:24

Volatile Organics by EPA Method 624

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW2-9-8 (1609101-01) Liquid Sampled: 09/08/16 11:00 Received: 09/08/16 13:30									
Acrolein	ND	5.0	µg/L	1	B610919	09/09/16	09/12/16 08:40	EPA 624	
Acrylonitrile	ND	2.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	1.0	"	"	"	"	"	"	
Chloroform	1.4	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		110 %	86-118		"	"	"	"	
Surrogate: Toluene-d8		91.2 %	88-110		"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #2
Project Manager: Rick Dever

Reported:
09/14/16 11:24

Volatile Organics by EPA Method 624

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW2-9-8 (1609101-01) Liquid Sampled: 09/08/16 11:00 Received: 09/08/16 13:30									
<i>Surrogate: 4-Bromofluorobenzene</i>		108 %	86-115		B610919	09/09/16	09/12/16 08:40	EPA 624	

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Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Well #2
 Project Manager: Rick Dever

Reported:
 09/14/16 11:24

Semivolatile Organics by EPA Method 625

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW2-9-8 (1609101-01) Liquid Sampled: 09/08/16 11:00 Received: 09/08/16 13:30									
Acenaphthene	ND	5.0	µg/L	1	B6H2337	09/09/16	09/12/16 17:45	EPA 625	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzidine	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.0	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	5.0	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	5.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.0	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.0	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	5.0	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.0	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.0	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	
Fluorene	ND	5.0	"	"	"	"	"	"	
Hexachlorobenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	5.0	"	"	"	"	"	"	
Hexachloroethane	ND	5.0	"	"	"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #2
Project Manager: Rick Dever

Reported:
09/14/16 11:24

Semivolatile Organics by EPA Method 625

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								

MW2-9-8 (1609101-01) Liquid Sampled: 09/08/16 11:00 Received: 09/08/16 13:30

Indeno (1,2,3-cd) pyrene	ND	5.0	µg/L	1	B6H2337	09/09/16	09/12/16 17:45	EPA 625	
Isophorone	ND	5.0	"	"	"	"	"	"	
2-Methyl-4,6-dinitrophenol	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.0	"	"	"	"	"	"	
2-Nitrophenol	ND	1.0	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	5.0	"	"	"	"	"	"	
Diphenylamine	ND	5.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	5.0	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Phenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: 2-Fluorophenol</i>		79.3 %	25-121		"	"	"	"	
<i>Surrogate: Phenol-d6</i>		67.3 %	24-113		"	"	"	"	
<i>Surrogate: Nitrobenzene-d5</i>		80.0 %	23-120		"	"	"	"	
<i>Surrogate: 2-Fluorobiphenyl</i>		81.8 %	30-115		"	"	"	"	
<i>Surrogate: 2,4,6-Tribromophenol</i>		73.3 %	19-122		"	"	"	"	
<i>Surrogate: Terphenyl-d14</i>		94.0 %	18-137		"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #3
Project Manager: Rick Dever

Reported:
09/14/16 11:26

Conventional Chemistry Parameters by APHA/EPA Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW3-9-8 (1609102-01) Liquid Sampled: 09/08/16 11:15 Received: 09/08/16 13:30									
Ammonia as N	ND	0.100	mg/L	1	B610928	09/08/16	09/09/16 16:3	ISM 4500-NH3	
Chloride	116	0.500	"	"	"	"	"	SM 4500-Cl- B	
Methylene Blue Active Substances	ND	0.100	"	"	"	"	"	EPA 425.1	
Nitrate as N	3.70	0.0200	"	"	"	"	"	EPA 353.3	
Sulfate as SO4	103	0.500	"	"	"	"	"	EPA 375.4	
Total Dissolved Solids	500	1.00	"	"	"	"	"	EPA 160.1	
Total Kjeldahl Nitrogen	ND	0.10	"	"	"	"	"	EPA 351.3	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #3
Project Manager: Rick Dever

Reported:
09/14/16 11:26

Metals by EPA 200 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW3-9-8 (1609102-01) Liquid Sampled: 09/08/16 11:15 Received: 09/08/16 13:30									
Sodium	56	0.71	mg/L	1	B610924	09/09/16	09/09/16 20:06	EPA 200.7	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #3
Project Manager: Rick Dever

Reported:
09/14/16 11:26

Trihalomethanes by EPA Method 524.2

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW3-9-8 (1609102-01) Liquid Sampled: 09/08/16 11:15 Received: 09/08/16 13:30									
Bromodichloromethane	ND	0.500	µg/L	1	B611234	09/09/16	09/12/16 09:26	EPA 524.2	
Bromoform	ND	0.500	"	"	"	"	"	"	
Chloroform	ND	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.500	"	"	"	"	"	"	
Total Trihalomethanes	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		106 %	86-118		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		107 %	88-110		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		106 %	86-115		"	"	"	"	

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Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Well #3
 Project Manager: Rick Dever

Reported:
 09/14/16 11:26

Haloacetic Acids (GC/ECD) by EPA Method 552.2

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW3-9-8 (1609102-01) Liquid Sampled: 09/08/16 11:15 Received: 09/08/16 13:30									
Monochloroacetic Acid	ND	2.00	µg/L	1	B611236	09/12/16	09/13/16 09:22	EPA 552.2	
Dichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Trichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Monobromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Dibromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Total Haloacetic Acids	ND	1.00	"	"	"	"	"	"	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		115 %		60-150	"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #3
Project Manager: Rick Dever

Reported:
09/14/16 11:26

Volatile Organics by EPA Method 624

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW3-9-8 (1609102-01) Liquid Sampled: 09/08/16 11:15 Received: 09/08/16 13:30

Acrolein	ND	5.0	µg/L	1	B610919	09/09/16	09/12/16 08:40	EPA 624	
Acrylonitrile	ND	2.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Bromobenzene	ND	1.0	"	"	"	"	"	"	
Bromodichloromethane	ND	1.0	"	"	"	"	"	"	
Bromoform	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0	"	"	"	"	"	"	
Chlorobenzene	ND	1.0	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Methylene chloride	ND	1.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	"	"	"	"	"	"	
Tetrachloroethene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0	"	"	"	"	"	"	
Trichloroethene	ND	1.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
m,p-Xylene	ND	1.0	"	"	"	"	"	"	
o-Xylene	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		101 %		86-118	"	"	"	"	
Surrogate: Toluene-d8		98.6 %		88-110	"	"	"	"	

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Crestline Sanitation District P.O. Box 3395 Crestline CA, 92325-3395	Project: NA Project Number: Las Flores Monitor Well #3 Project Manager: Rick Dever	Reported: 09/14/16 11:26
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Volatile Organics by EPA Method 624

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW3-9-8 (1609102-01) Liquid Sampled: 09/08/16 11:15 Received: 09/08/16 13:30									
<i>Surrogate: 4-Bromofluorobenzene</i>		106 %	86-115		B610919	09/09/16	09/12/16 08:40	EPA 624	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Well #3
 Project Manager: Rick Dever

Reported:
 09/14/16 11:26

Semivolatile Organics by EPA Method 625
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW3-9-8 (1609102-01) Liquid Sampled: 09/08/16 11:15 Received: 09/08/16 13:30									
Acenaphthene	ND	5.0	µg/L	1	B6H2337	09/09/16	09/12/16 18:25	EPA 625	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzidine	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.0	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	5.0	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	5.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.0	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.0	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	5.0	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.0	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.0	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	
Fluorene	ND	5.0	"	"	"	"	"	"	
Hexachlorobenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	5.0	"	"	"	"	"	"	
Hexachloroethane	ND	5.0	"	"	"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #3
Project Manager: Rick Dever

Reported:
09/14/16 11:26

Semivolatile Organics by EPA Method 625

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW3-9-8 (1609102-01) Liquid **Sampled: 09/08/16 11:15** **Received: 09/08/16 13:30**

Indeno (1,2,3-cd) pyrene	ND	5.0	µg/L	1	B6H2337	09/09/16	09/12/16 18:25	EPA 625	
Isophorone	ND	5.0	"	"	"	"	"	"	
2-Methyl-4,6-dinitrophenol	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.0	"	"	"	"	"	"	
2-Nitrophenol	ND	1.0	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	5.0	"	"	"	"	"	"	
Diphenylamine	ND	5.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	5.0	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Phenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: 2-Fluorophenol</i>		75.3 %		25-121	"	"	"	"	
<i>Surrogate: Phenol-d6</i>		71.3 %		24-113	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5</i>		80.1 %		23-120	"	"	"	"	
<i>Surrogate: 2-Fluorobiphenyl</i>		89.5 %		30-115	"	"	"	"	
<i>Surrogate: 2,4,6-Tribromophenol</i>		66.1 %		19-122	"	"	"	"	
<i>Surrogate: Terphenyl-d14</i>		87.4 %		18-137	"	"	"	"	

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Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Well #4
 Project Manager: Rick Dever

Reported:
 09/14/16 11:38

Conventional Chemistry Parameters by APHA/EPA Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW4-9-8 (1609103-01) Liquid Sampled: 09/08/16 11:45 Received: 09/08/16 13:30									
Ammonia as N	0.110	0.100	mg/L	1	B6I0928	09/08/16	09/09/16 16:31	SM 4500-NH3	
Chloride	158	0.500	"	"	"	"	"	SM 4500-Cl- B	
Methylene Blue Active Substances	ND	0.100	"	"	"	"	"	EPA 425.1	
Nitrate as N	2.70	0.0200	"	"	"	"	"	EPA 353.3	
Sulfate as SO4	117	0.500	"	"	"	"	"	EPA 375.4	
Total Dissolved Solids	580	1.00	"	"	"	"	"	EPA 160.1	
Total Kjeldahl Nitrogen	0.12	0.10	"	"	"	"	"	EPA 351.3	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #4
Project Manager: Rick Dever

Reported:
09/14/16 11:38

Metals by EPA 200 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW4-9-8 (1609103-01) Liquid Sampled: 09/08/16 11:45 Received: 09/08/16 13:30										
Sodium	48	0.71		mg/L	1	B610924	09/09/16	09/09/16 20:06	EPA 200.7	

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Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Well #4
 Project Manager: Rick Dever

Reported:
 09/14/16 11:38

Trihalomethanes by EPA Method 524.2
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW4-9-8 (1609103-01) Liquid Sampled: 09/08/16 11:45 Received: 09/08/16 13:30									
Bromodichloromethane	ND	0.500	µg/L	1	B611234	09/09/16	09/12/16 09:26	EPA 524.2	
Bromoform	ND	0.500	"	"	"	"	"	"	
Chloroform	ND	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.500	"	"	"	"	"	"	
Total Trihalomethanes	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		104 %	86-118		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		108 %	88-110		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		103 %	86-115		"	"	"	"	

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Crestline Sanitation District
 P.O. Box 3395
 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Well #4
 Project Manager: Rick Dever

Reported:
 09/14/16 11:38

Haloacetic Acids (GC/ECD) by EPA Method 552.2
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW4-9-8 (1609103-01) Liquid Sampled: 09/08/16 11:45 Received: 09/08/16 13:30									
Monochloroacetic Acid	ND	2.00	µg/L	1	B6I1236	09/12/16	09/13/16 09:22	EPA 552.2	
Dichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Trichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Monobromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Dibromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Total Haloacetic Acids	ND	1.00	"	"	"	"	"	"	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		72.6 %	60-150		"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #4
Project Manager: Rick Dever

Reported:
09/14/16 11:38

Volatile Organics by EPA Method 624
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW4-9-8 (1609103-01) Liquid Sampled: 09/08/16 11:45 Received: 09/08/16 13:30										
Acrolein	ND	5.0		µg/L	1	B610919	09/09/16	09/12/16 08:40	EPA 624	
Acrylonitrile	ND	2.0		"	"	"	"	"	"	
Benzene	ND	1.0		"	"	"	"	"	"	
Bromobenzene	ND	1.0		"	"	"	"	"	"	
Bromodichloromethane	ND	1.0		"	"	"	"	"	"	
Bromoform	ND	1.0		"	"	"	"	"	"	
Bromomethane	ND	1.0		"	"	"	"	"	"	
Carbon tetrachloride	ND	1.0		"	"	"	"	"	"	
Chlorobenzene	ND	1.0		"	"	"	"	"	"	
Chloroethane	ND	1.0		"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	1.0		"	"	"	"	"	"	
Chloroform	ND	1.0		"	"	"	"	"	"	
Chloromethane	ND	1.0		"	"	"	"	"	"	
Dibromochloromethane	ND	1.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Methylene chloride	ND	1.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.0		"	"	"	"	"	"	
Tetrachloroethene	ND	1.0		"	"	"	"	"	"	
Toluene	ND	1.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.0		"	"	"	"	"	"	
Trichloroethene	ND	1.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.0		"	"	"	"	"	"	
Vinyl chloride	ND	1.0		"	"	"	"	"	"	
m,p-Xylene	ND	1.0		"	"	"	"	"	"	
o-Xylene	ND	1.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0		"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		103 %		86-118		"	"	"	"	
Surrogate: Toluene-d8		98.4 %		88-110		"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #4
Project Manager: Rick Dever

Reported:
09/14/16 11:38

Volatile Organics by EPA Method 624

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW4-9-8 (1609103-01) Liquid Sampled: 09/08/16 11:45 Received: 09/08/16 13:30									
Surrogate: 4-Bromofluorobenzene		113 %	86-115		B610919	09/09/16	09/12/16 08:40	EPA 624	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #4
Project Manager: Rick Dever

Reported:
09/14/16 11:38

Semivolatile Organics by EPA Method 625
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
MW4-9-8 (1609103-01) Liquid Sampled: 09/08/16 11:45 Received: 09/08/16 13:30									
Acenaphthene	ND	5.0	µg/L	1	B6H2337	09/09/16	09/12/16 19:06	EPA 625	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzidine	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.0	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	5.0	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	5.0	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	5.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
2-Chlorophenol	ND	1.0	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.0	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.0	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.0	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.0	"	"	"	"	"	"	
Diethyl phthalate	ND	5.0	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.0	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	1.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.0	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	
Fluorene	ND	5.0	"	"	"	"	"	"	
Hexachlorobenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	5.0	"	"	"	"	"	"	
Hexachloroethane	ND	5.0	"	"	"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Well #4
Project Manager: Rick Dever

Reported:
09/14/16 11:38

Semivolatile Organics by EPA Method 625
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW4-9-8 (1609103-01) Liquid **Sampled: 09/08/16 11:45** **Received: 09/08/16 13:30**

Indeno (1,2,3-cd) pyrene	ND	5.0	µg/L	1	B6H2337	09/09/16	09/12/16 19:06	EPA 625	
Isophorone	ND	5.0	"	"	"	"	"	"	
2-Methyl-4,6-dinitrophenol	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.0	"	"	"	"	"	"	
2-Nitrophenol	ND	1.0	"	"	"	"	"	"	
4-Nitrophenol	ND	1.0	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	5.0	"	"	"	"	"	"	
Diphenylamine	ND	5.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	5.0	"	"	"	"	"	"	
Pentachlorophenol	ND	1.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Phenol	ND	1.0	"	"	"	"	"	"	
Pyrene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.0	"	"	"	"	"	"	
<i>Surrogate: 2-Fluorophenol</i>		78.0 %	25-121		"	"	"	"	
<i>Surrogate: Phenol-d6</i>		73.3 %	24-113		"	"	"	"	
<i>Surrogate: Nitrobenzene-d5</i>		88.0 %	23-120		"	"	"	"	
<i>Surrogate: 2-Fluorobiphenyl</i>		82.7 %	30-115		"	"	"	"	
<i>Surrogate: 2,4,6-Tribromophenol</i>		60.2 %	19-122		"	"	"	"	
<i>Surrogate: Terphenyl-d14</i>		83.6 %	18-137		"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Wells
Project Manager: Rick Dever

Reported:
03/17/16 15:27

Trihalomethanes by EPA Method 524.2

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-3-10 (1603168-01) Liquid Sampled: 03/10/16 10:00 Received: 03/10/16 12:50									
Bromodichloromethane	ND	0.500	µg/L	1	B6C1676	03/16/16	03/17/16 08:31	EPA 524.2	
Bromoform	ND	0.500	"	"	"	"	"	"	
Chloroform	ND	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.500	"	"	"	"	"	"	
Total Trihalomethanes	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		101 %	86-118		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		101 %	88-110		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		87.2 %	86-115		"	"	"	"	
MW-2-3-10 (1603168-02) Liquid Sampled: 03/10/16 10:15 Received: 03/10/16 12:50									
Bromodichloromethane	ND	0.500	µg/L	1	B6C1676	03/16/16	03/17/16 08:31	EPA 524.2	
Bromoform	ND	0.500	"	"	"	"	"	"	
Chloroform	1.43	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.500	"	"	"	"	"	"	
Total Trihalomethanes	1.43	0.500	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		101 %	86-118		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		98.2 %	88-110		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		91.6 %	86-115		"	"	"	"	
MW-3-3-10 (1603168-03) Liquid Sampled: 03/10/16 10:30 Received: 03/10/16 12:50									
Bromodichloromethane	ND	0.500	µg/L	1	B6C1676	03/16/16	03/17/16 08:31	EPA 524.2	
Bromoform	ND	0.500	"	"	"	"	"	"	
Chloroform	ND	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.500	"	"	"	"	"	"	
Total Trihalomethanes	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		103 %	86-118		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		95.2 %	88-110		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.4 %	86-115		"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Wells
Project Manager: Rick Dever

Reported:
03/17/16 15:27

Trihalomethanes by EPA Method 524.2

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4-3-10 (1603168-04) Liquid Sampled: 03/10/16 10:50 Received: 03/10/16 12:50									
Bromodichloromethane	ND	0.500	µg/L	1	B6C1676	03/16/16	03/17/16 08:31	EPA 524.2	
Bromoform	ND	0.500	"	"	"	"	"	"	
Chloroform	ND	0.500	"	"	"	"	"	"	
Dibromochloromethane	ND	0.500	"	"	"	"	"	"	
Total Trihalomethanes	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		100 %	86-118		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		102 %	88-110		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		89.2 %	86-115		"	"	"	"	

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 Crestline CA, 92325-3395

Project: NA
 Project Number: Las Flores Monitor Wells
 Project Manager: Rick Dever

Reported:
 03/17/16 15:27

Haloacetic Acids (GC/ECD) by EPA Method 552.2

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-1-3-10 (1603168-01) Liquid Sampled: 03/10/16 10:00 Received: 03/10/16 12:50

Monochloroacetic Acid	ND	2.00	µg/L	1	B6C1733	03/17/16	03/17/16 14:27	EPA 552.2	
Dichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Trichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Monobromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Dibromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Total Haloacetic Acids	ND	1.00	"	"	"	"	"	"	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		120 %	60-150		"	"	"	"	

MW-2-3-10 (1603168-02) Liquid Sampled: 03/10/16 10:15 Received: 03/10/16 12:50

Monochloroacetic Acid	ND	2.00	µg/L	1	B6C1733	03/17/16	03/17/16 14:27	EPA 552.2	
Dichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Trichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Monobromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Dibromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Total Haloacetic Acids	ND	1.00	"	"	"	"	"	"	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		127 %	60-150		"	"	"	"	

MW-3-3-10 (1603168-03) Liquid Sampled: 03/10/16 10:30 Received: 03/10/16 12:50

Monochloroacetic Acid	ND	2.00	µg/L	1	B6C1733	03/17/16	03/17/16 14:27	EPA 552.2	
Dichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Trichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Monobromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Dibromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Total Haloacetic Acids	ND	1.00	"	"	"	"	"	"	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		75.6 %	60-150		"	"	"	"	

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Crestline Sanitation District
P.O. Box 3395
Crestline CA, 92325-3395

Project: NA
Project Number: Las Flores Monitor Wells
Project Manager: Rick Dever

Reported:
03/17/16 15:27

Haloacetic Acids (GC/ECD) by EPA Method 552.2

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4-3-10 (1603168-04) Liquid Sampled: 03/10/16 10:50 Received: 03/10/16 12:50									
Monochloroacetic Acid	ND	2.00	µg/L	1	B6C1733	03/17/16	03/17/16 14:27	EPA 552.2	
Dichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Trichloroacetic Acid	ND	1.00	"	"	"	"	"	"	
Monobromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Dibromoacetic Acid	ND	1.00	"	"	"	"	"	"	
Total Haloacetic Acids	ND	1.00	"	"	"	"	"	"	
<i>Surrogate: 2,3-Dibromopropionic Acid</i>		82.2 %		60-150	"	"	"	"	

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