SUMMERLAND
Sanitary District

ANNUAL REPORT
2023

NPDES NO. CA0048054
ORDER NO. R3-2022-0014

SUMMERLAND
Sanitary District

January 18, 2024

SUBJECT: NPDES Permit No. CA0048054
ORDER No. R3-2022-0014
Annual Report-2023

In accordance with the requirements of the general provisions of the Summerland Sanitary District's NPDES Permit No. CA0048054, we are transmitting the District's Annual Report for 2023. The monitoring data is compiled throughout the year and is presented in both tabular and graphic forms.

As required, the following is a list of certified operators currently employed by the District:

- David W. Lewis, Operations Manager, Grade V-7378, expiration date 06/30/2026.
- Eduardo Nava, Lead Collections/ Treatment Plant Operator II, Grade II- 42423 expiration date 05/09/2026. Mr. Nava holds a Collections System Maintenance Grade 2 # 1308221151 CWEA. Expiration date 03-31-2024.
- Christopher R. Bennett, Operator II, Grade II-44983, expiration date 01/13/2025.
- Victor A. Aguilar, Operator In Training, OIT-I, expiration date 11/23/2025.

During 2023, all parameters of the effluent quality were within the limits set by the District's discharge permit. The monthly grease and oil, ammonia (nitrogen), total and fecal coliform, BOD, total suspended solids, and turbidity were analyzed by Fruit Growers Laboratory (FGL) of Santa Paula, California. FGL also completed the annual effluent, ocean, and sludge sampling analysis. Aquatic Bioassay & Consulting Laboratories, Inc (ABC Labs) in Ventura, California, performed chronic toxicity testing.

The Operation and Maintenance Manual was reviewed and revised on 1/29/2024.

The dry weather Average Daily Effluent Flow was 0.0862 MGD for 2023. (approximately 29% of the 0.300 MGD permitted limit) Only one service connection was added to the collection system in the past year. The addition being a single-family dwelling. The rate of development in the Summerland Sanitary District service area is, and has been, very low. It is projected that the flows will not near the facility capacity any time in the foreseeable future.

For 2023, a total of 84.02 tons of biosolids were hauled to Liberty Composting facility in Kern County by Synagro Technologies.

On October 4, 2023, Salty Dog Dive Service of Santa Barbara California completed the inspection of the district's ocean outfall pipeline. The entire outfall inspection report is attached as a separate document and is uploaded under the CIWQS reporting system.

Collection System Maintenance and Renovation Program

Objective:

To reduce sanitary overflows, increase system reliability, optimize service life of collection system components, plan for facility replacement and educate public on importance of maintaining private laterals.

Goals- Short Term:

- Continue systematic cleaning and closed-circuit televising of collection system to identify problem areas and effectiveness of cleaning efforts. Repair problem areas if found.
- As needed, locate, raise, and repair District manholes and cleanouts.
- Monthly updating of District Atlas with any changes that may be needed (new service connections, new manholes, collection system repairs etc.).
- As the collection system is televised, update property connection data for future reference. This entails getting footage from the nearest manhole to property lateral connection into the district's main sewer line. Other property information will be entered if pertinent to sewer service.

Goals- Long Term:

- Repair collection system mainlines if problems found by means of point repair or slip-lining of collection mainline.
- To have the collection system in a state of operation where only minor repairs are needed.
- To continue to bring property owners sewer service who are currently on septic systems for their sanitary needs.
- Continue to stay abreast of future reclamation needs in conjunction with local water district.

Actions completed in 2023:

- In 2023, approx. 26,720 feet of collection mainline was cleaned by District staff using a trailer-mounted hydrojetter. Approx. 524 feet of mainline was televised by District staff with closed circuit televising equipment.
- Annual and routine maintenance of three lift stations and four on-site generators.

- The Sewer System Management Plan (SSMP) was updated in May 2023.

2023 Reported Overflows:

No sanitary sewer overflows were reported for the calendar year 2023.

Please feel free to contact me if you have any questions or need additional information.

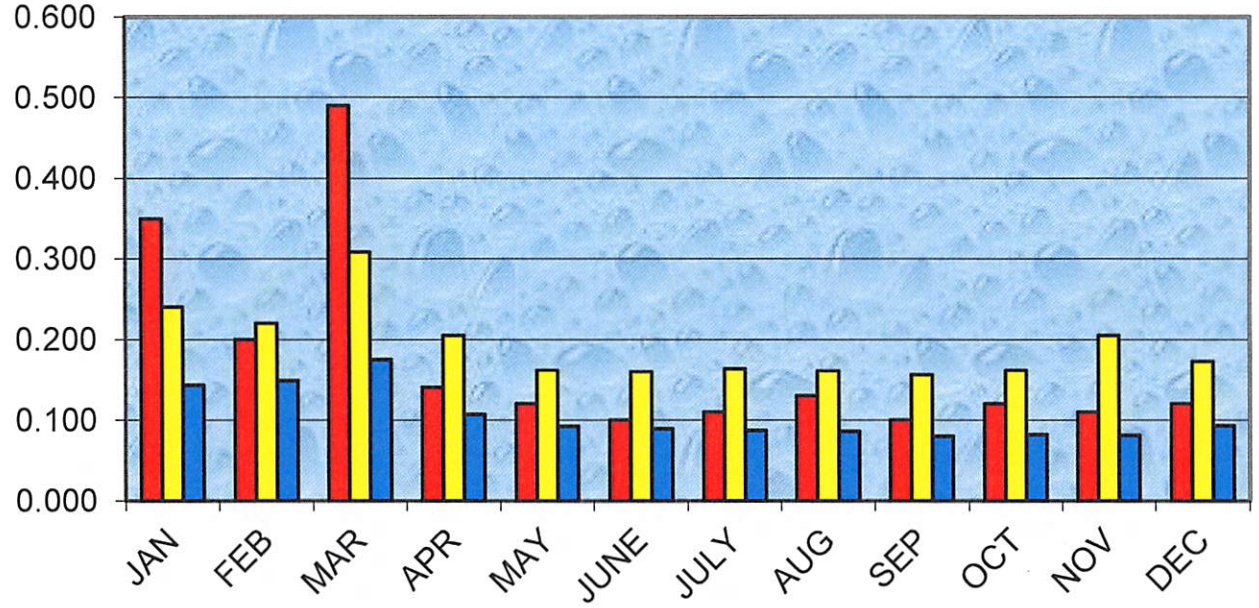
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." [40 CFR §122.22(d)].

Sincerely,

David W. Lewis
Operations Manager
Summerland Sanitary District

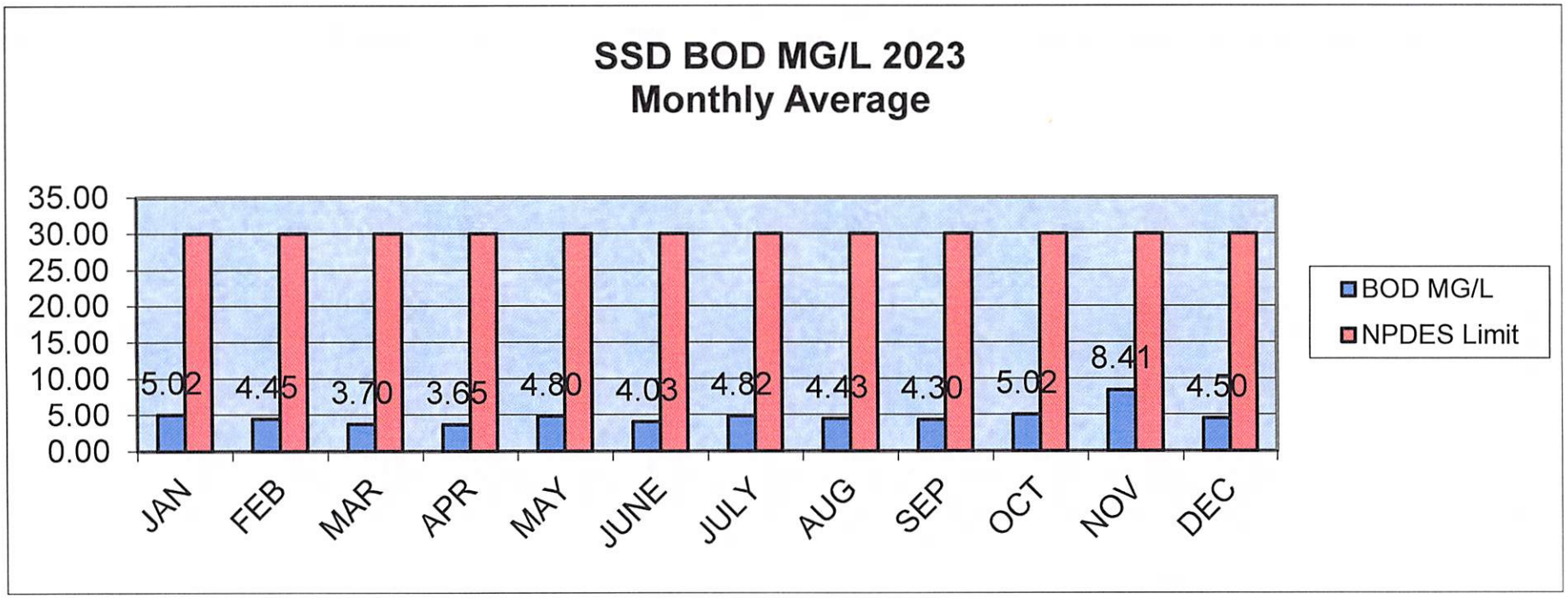
TABLE OF CONTENTS

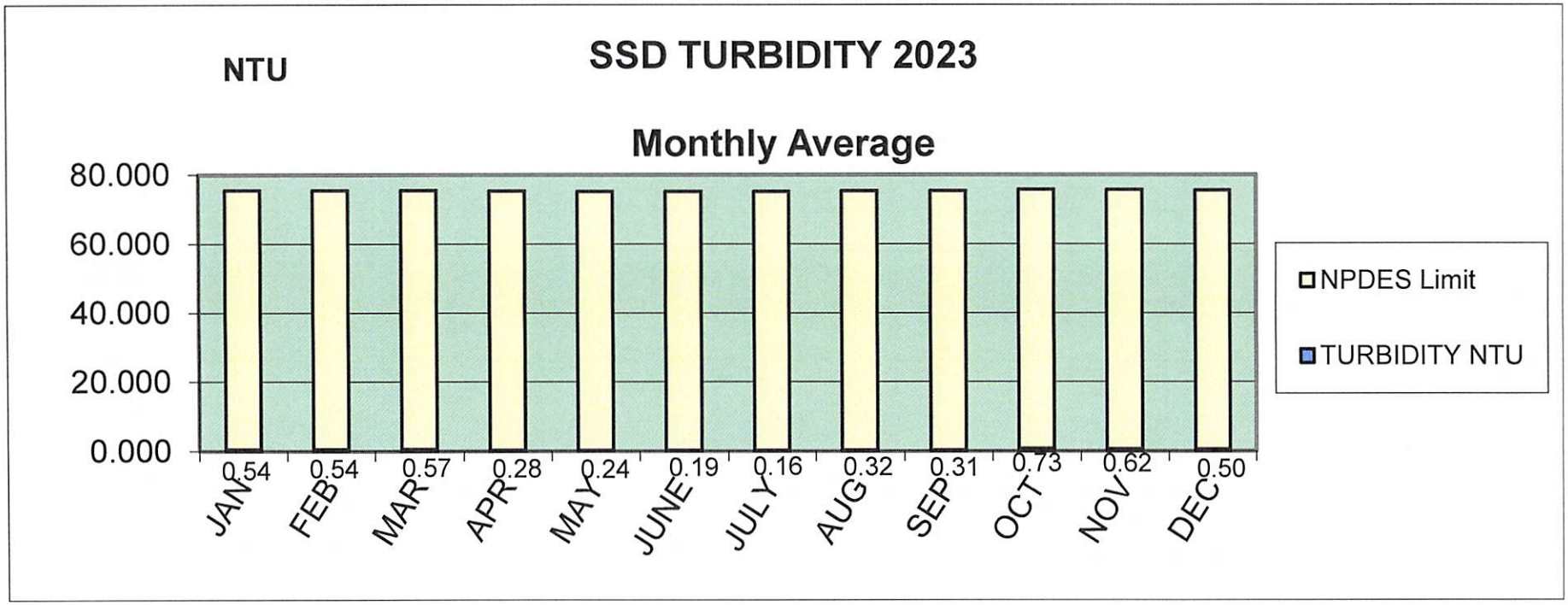
SSD FLOW DATA MGD 2023

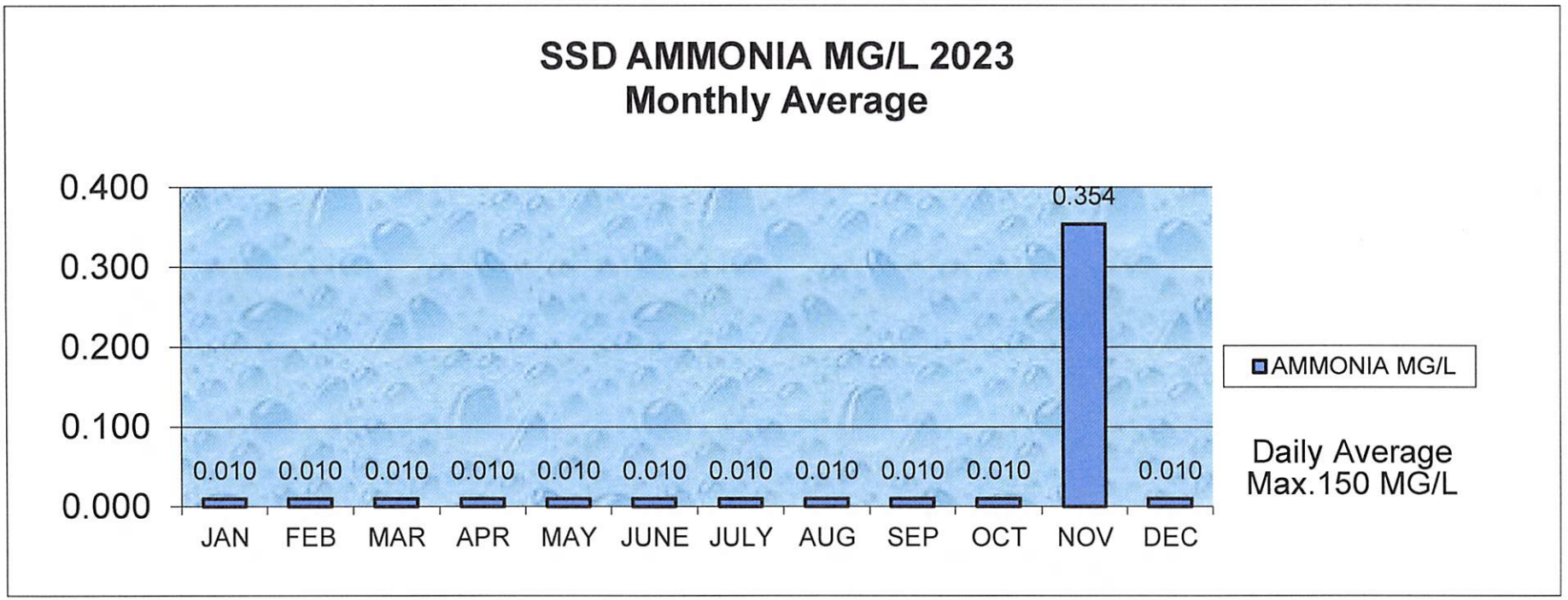


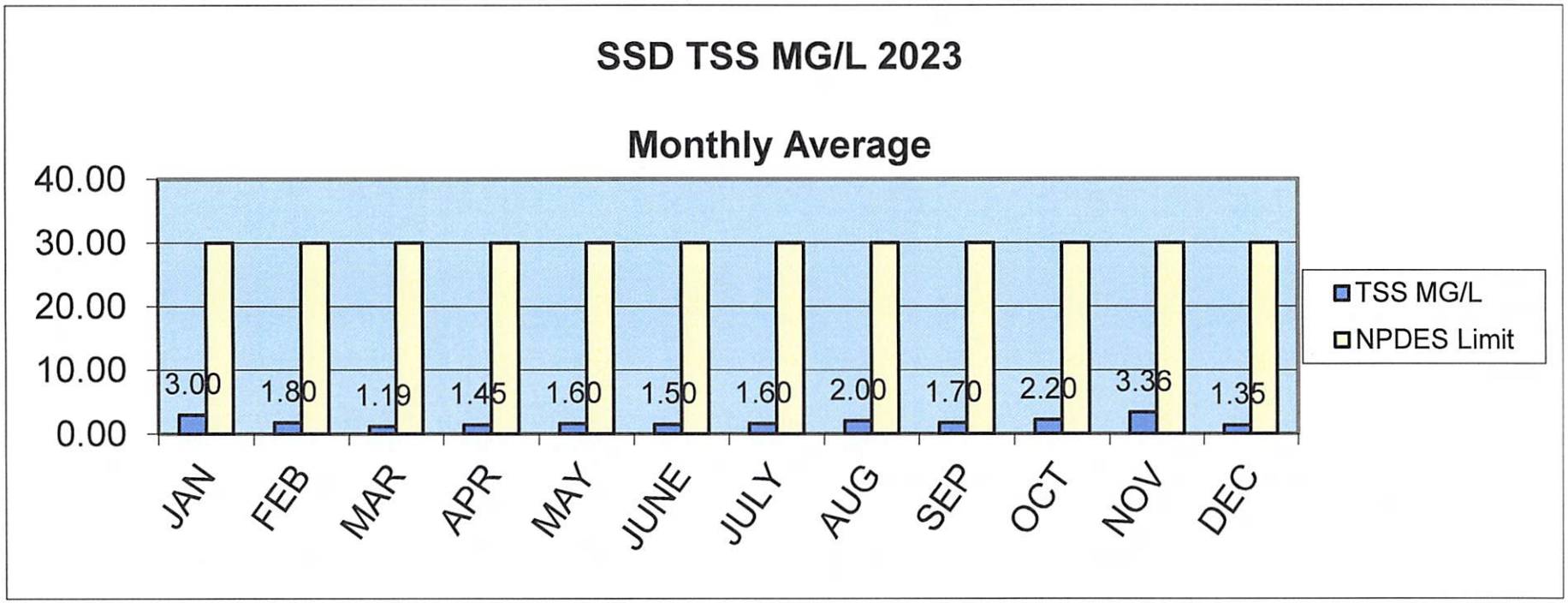
Yearly Averages

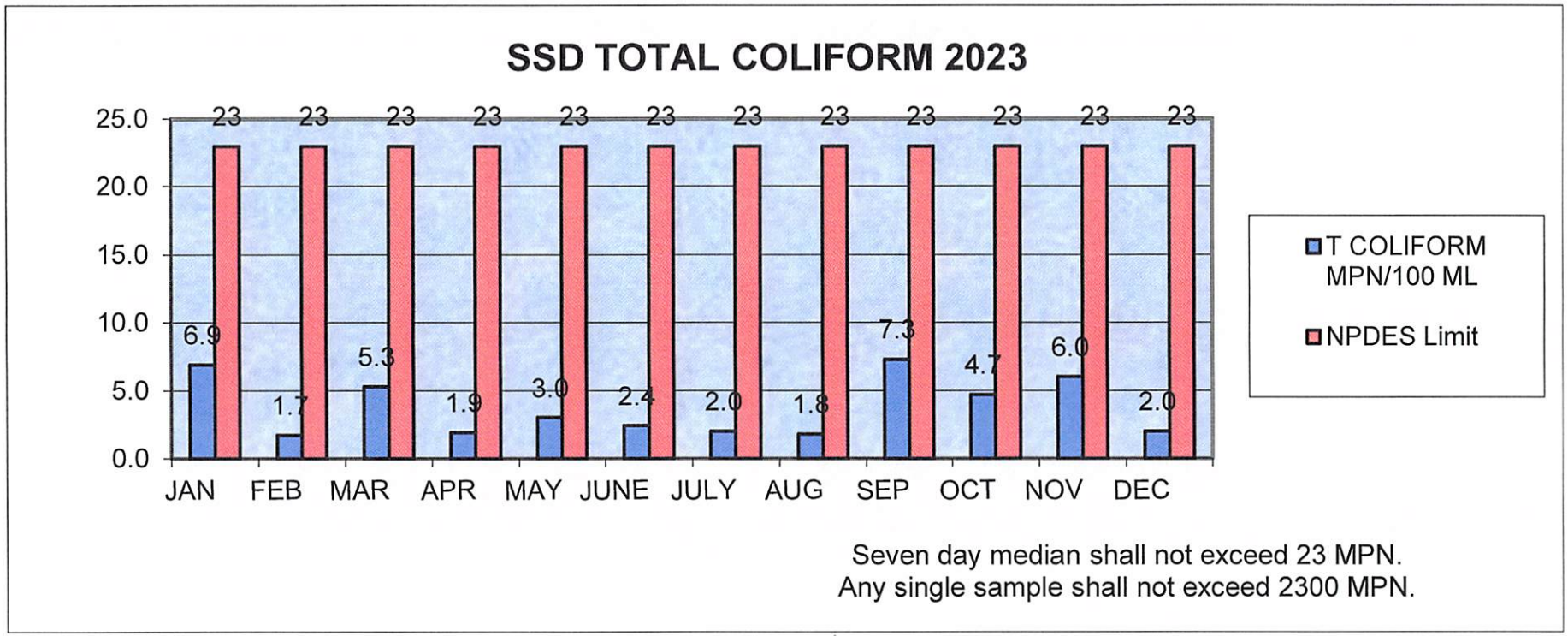
InstMax	MaxDaily	Avg.Daily
0.116	0.151	0.067

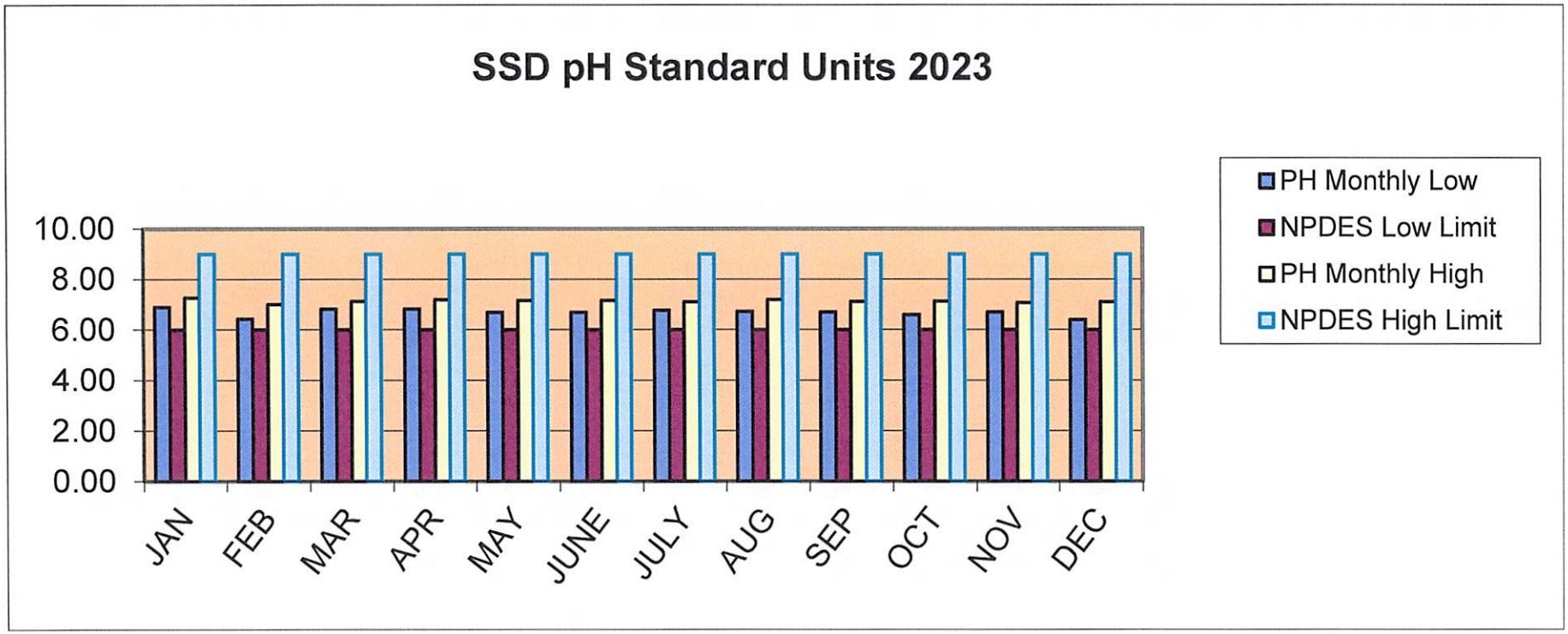

SSD BOD MG/L 2023
Monthly Average
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
5.02
4.45
3.70
3.65
4.80
4.03
4.82
4.43
4.30
5.02
8.41
4.50
JAN
FEB
MAR
APR
MAY
JUNE
JULY
AUG
SEP
OCT
NOV
DEC
BOD MG/L
NPDES Limit

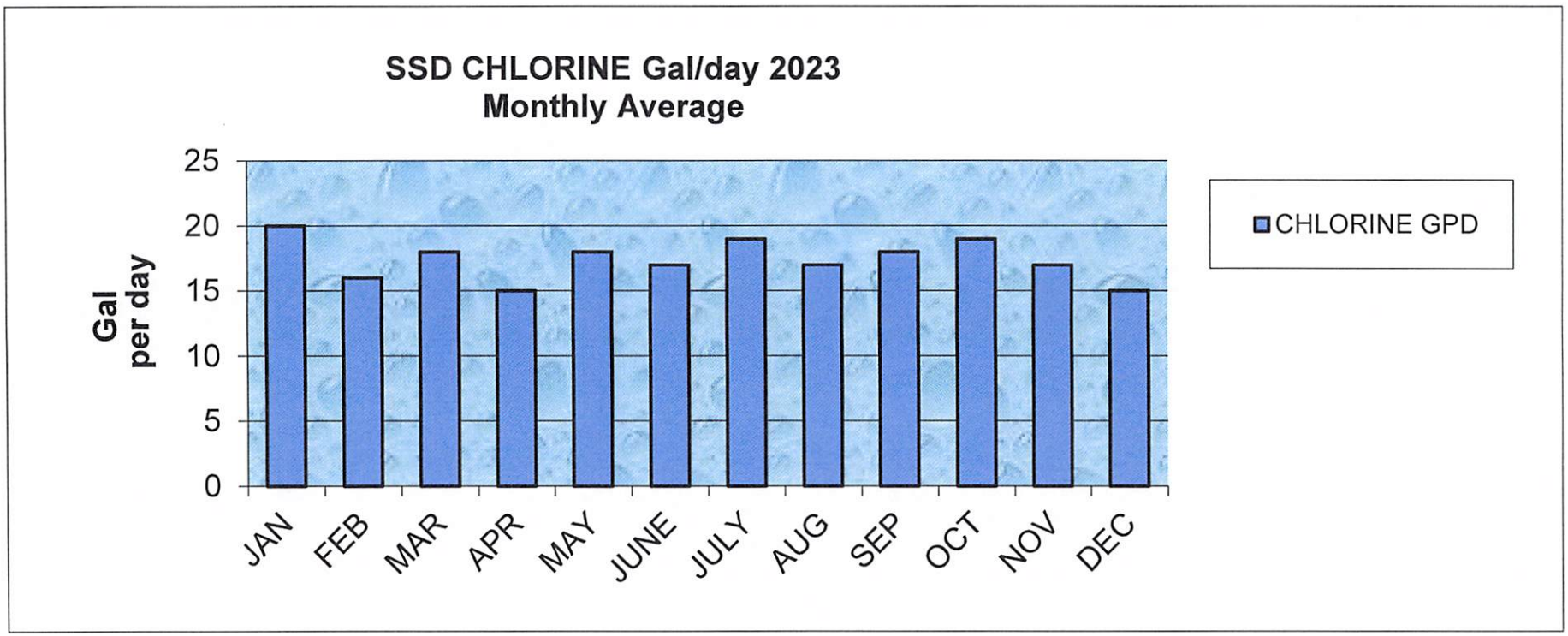

NTU
SSD TURBIDITY 2023
Monthly Average
80.000
60.000
40.000
20.000
0.000
0.54
0.54
0.57
0.28
0.24
0.19
0.16
0.32
0.31
0.73
0.62
0.50
JAN
FEB
MAR
APR
MAY
JUNE
JULY
AUG
SEP
OCT
NOV
DEC
NPDES Limit
TURBIDITY NTU


SSD AMMONIA MG/L 2023
Monthly Average
0.400
0.300
0.200
0.100
0.000
0.010
0.010
0.010
0.010
0.010
0.010
0.010
0.010
0.010
0.010
0.354
0.010
JAN
FEB
MAR
APR
MAY
JUNE
JULY
AUG
SEP
OCT
NOV
DEC
AMMONIA MG/L
Daily Average
Max.150 MG/L

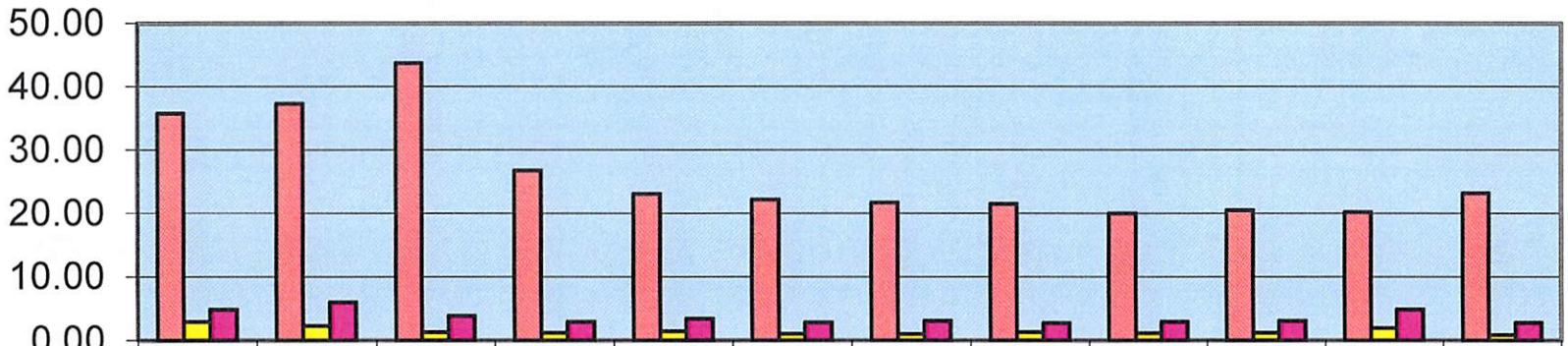

SSD TSS MG/L 2023
Monthly Average
40.00
30.00
20.00
10.00
0.00
3.00
1.80
1.19
1.45
1.60
1.50
1.60
2.00
1.70
2.20
3.36
1.35
JAN
FEB
MAR
APR
MAY
JUNE
JULY
AUG
SEP
OCT
NOV
DEC
TSS MG/L
NPDES Limit


SSD TOTAL COLIFORM 2023
25.0
20.0
15.0
10.0
5.0
0.0
JAN FEB MAR APR MAY JUNE JULY AUG SEP OCT NOV DEC
23 23 23 23 23 23 23 23 23 23 23 23
6.9 1.7 5.3 1.9 3.0 2.4 2.0 1.8 7.3 4.7 6.0 2.0
T COLIFORM MPN/100 ML
NPDES Limit
Seven day median shall not exceed 23 MPN.
Any single sample shall not exceed 2300 MPN.


SSD pH Standard Units 2023
10.00
8.00
6.00
4.00
2.00
0.00
JAN
FEB
MAR
APR
MAY
JUNE
JULY
AUG
SEP
OCT
NOV
DEC
PH Monthly Low
NPDES Low Limit
PH Monthly High
NPDES High Limit


SSD CHLORINE Gal/day 2023
Monthly Average
Gal per day
25
20
15
10
5
0
JAN
FEB
MAR
APR
MAY
JUNE
JULY
AUG
SEP
OCT
NOV
DEC
CHLORINE GPD

SSD EFFLUENT Mass Emissions Monthly 2023



	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
Max Emissions Lbs/d	35.77	37.27	43.78	26.77	23.08	22.26	21.76	21.51	20.01	20.51	20.26	23.26
Suspd"d Solids Lbs/d	2.88	2.30	1.24	1.21	1.43	1.04	0.99	1.24	1.13	1.18	1.94	0.84
BOD Lbs/d	4.82	5.98	3.87	2.95	3.42	2.84	3.03	2.69	2.89	3.07	4.81	2.79

Summerland Sanitary District
Annual 2023

MONTH	INST MAX	MAX DAILY	AVG DAILY	BOD MG/L	NPDES Limit	TURBIDITY NTU	NPDES Limit	AMMONIA MG/L	NPDES Limit	TSS MG/L	NPDES Limit
JAN	0.350	0.240	0.143	5.02	30	0.543	75	0.010	150	3.00	30
FEB	0.200	0.220	0.149	4.45	30	0.539	75	0.010	150	1.80	30
MAR	0.490	0.308	0.175	3.70	30	0.566	75	0.010	150	1.19	30
APR	0.140	0.205	0.107	3.65	30	0.281	75	0.010	150	1.45	30
MAY	0.120	0.162	0.092	4.80	30	0.239	75	0.010	150	1.60	30
JUNE	0.100	0.160	0.089	4.03	30	0.185	75	0.010	150	1.50	30
JULY	0.110	0.164	0.087	4.82	30	0.164	75	0.010	150	1.60	30
AUG	0.130	0.161	0.086	4.43	30	0.315	75	0.010	150	2.00	30
SEP	0.100	0.156	0.080	4.30	30	0.313	75	0.010	150	1.70	30
OCT	0.120	0.162	0.082	5.02	30	0.732	75	0.010	150	2.20	30
NOV	0.110	0.205	0.081	8.41	30	0.620	75	0.354	150	3.36	30
DEC	0.120	0.173	0.093	4.50	30	0.500	75	0.010	150	1.35	30
AVERAGE	**0.174**	**0.193**	**0.105**	**4.76**	30	**0.416**	75	**0.039**	150	**1.90**	30

MONTH	T COLIFORM MPN/100 ML	NPDES Limit	PH Monthly Low	NPDES Low Limit	PH Monthly High	NPDES High Limit	CHLORINE Daily Av.	SLUDGE TONS	Max Emissions Lbs/d	TSS Lbs/d	BOD Lbs/d
JAN	6.9	23	6.90	6	7.27	9	20		35.77	2.88	4.82
FEB	1.7	23	6.43	6	7.01	9	16		37.27	2.30	5.98
MAR	5.3	23	6.82	6	7.13	9	18		43.78	1.24	3.87
APR	1.9	23	6.83	6	7.19	9	15	45.32	26.77	1.21	2.95
MAY	3.0	23	6.69	6	7.15	9	18		23.01	1.43	3.42
JUNE	2.4	23	6.68	6	7.15	9	17		22.26	1.04	2.84
JULY	2.0	23	6.76	6	7.09	9	19		21.76	0.99	3.03
AUG	1.8	23	6.71	6	7.19	9	17		21.51	1.24	2.69
SEP	7.3	23	6.70	6	7.11	9	18		20.01	1.13	2.89
OCT	4.7	23	6.60	6	7.12	9	19		20.51	1.18	3.07
NOV	6.0	23	6.70	6	7.06	9	17		20.26	1.94	4.81
DEC	2.00	23	6.40	6	7.10	9	15	38.70	23.26	0.84	2.79
AVERAGE	**3.8**	23	**6.69**	6	**7.13**	9	**17**	**42.01**	**26.35**	**1.45**	**3.60**

Salty Dog Dive Service

Summerland Sanitary District Outfall Dive Inspection Report
October 4, 2023

On October 4, 2023 Salty Dog Dive Service performed an under water inspection of the Summerland Sanitary District outfall pipe and diffusers. We also cleaned and inspected the pipeline marker buoy, chain, swivel and shackles. Underwater visibility varied between 2'- 4'. Below are our findings:

- On the first dive we cleaned the buoy and the chain from the buoy down to the clump weight. The chain was covered with mussels and hard marine growth. We scraped and scrubbed the chain, shackles and swivel clean. We also cleaned the top of the buoy, which was covered with guano. The anti-fouling bottom paint on the buoy is still in fairly good shape and growth on the buoy was not too heavy. The plate on the top of the buoy is intact and secure. The stainless steel eye at the bottom of the buoy shows some wear but is still solid. The buoy was sitting straight up and not listing. The chain from the bottom of the buoy to the clump weight on the bottom is slightly worn but solid for this season. The swivel under the buoy is solid and working well. All of the shackles are slightly worn and they are secure and seized. The "No Mooring" reflective lettering on the buoy is holding up well and still intact.

- On the second dive we inspected the outfall and diffusers. We started the outfall pipe inspection from the offshore end of the outfall, working toward the beach. First, we inspected the diffusers and found the west diffuser visibly flowing and no flow from the east diffuser. We then inspected the outfall pipe until it became completely buried in sand. We were able to inspect inshore to the 21st pipe. At this point the outfall became buried completely. We also inspected the patch and hardware on the pipeline. It looked secure with all of the bolts intact. No effluent was visible coming from the repaired area.

- The diffusers and the outfall pipe are completely covered with very heavy marine growth and kelp. We did not see any areas of the pipeline that were damaged and there was also no effluent leaking from the pipeline.

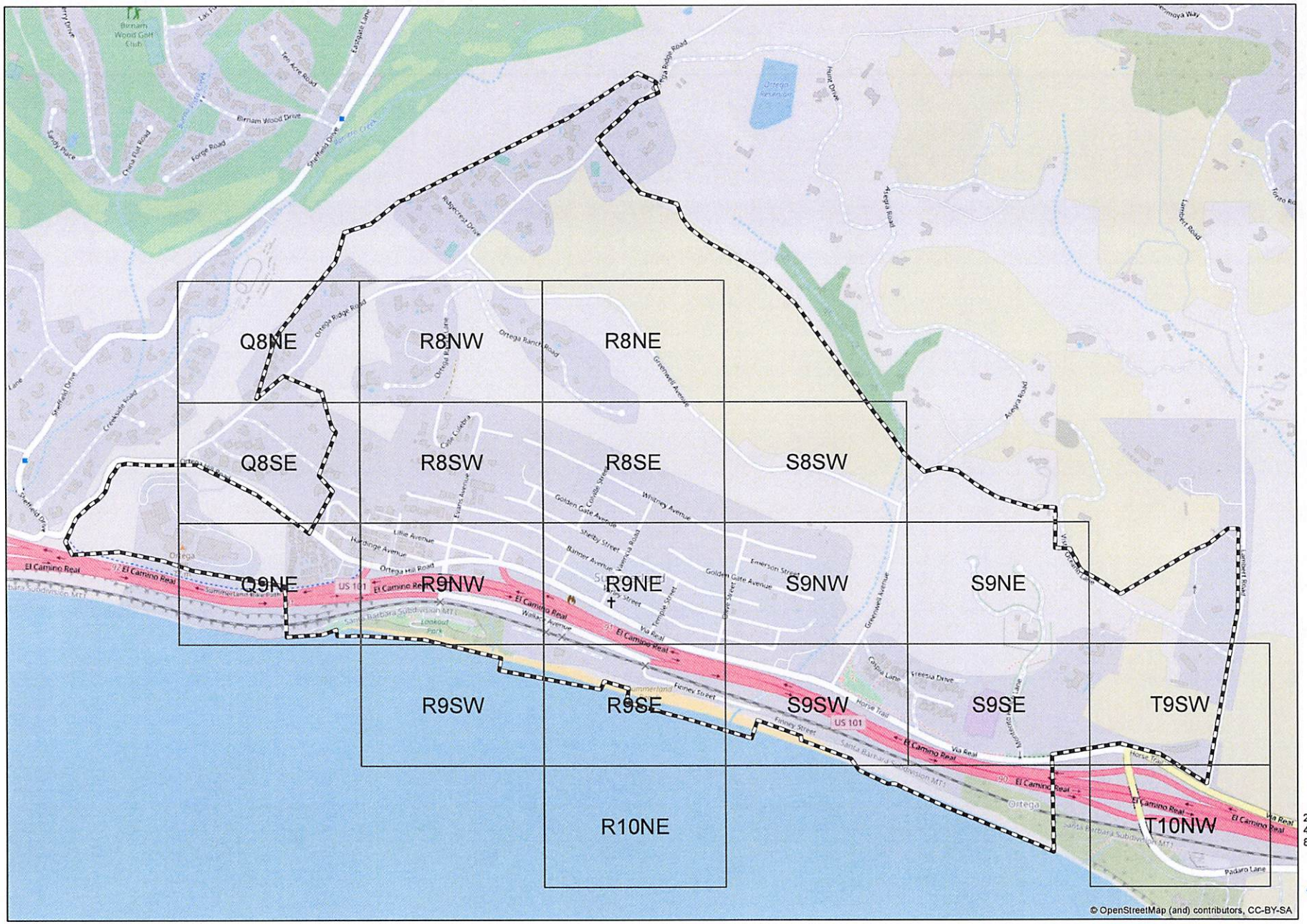
- The first 2 pipes are laying flat on the sand and buried halfway. The next 9 pipes (3 – 11) are laying flat on the sand, sitting on the flanges. Sand is built up against the west side of the pipe but the east side of the pipe is completely exposed and visible. The next 4 pipes (12 – 15) are laying flat and buried to the spring line (halfway covered) with only the top half of the pipes exposed, although very heavily covered with growth. The last 5 pipes (16 – 20) were laying flat on the sand sitting on the flanges. These pipes also had sand built up against the west side and the east side of these pipes were exposed with small areas where sand was scoured out. As we followed the pipe into the surf zone it became completely buried in the sand at the 21st pipe.

Marine Contracting and Dive Service
6 Harbor Way #205, Santa Barbara, CA 93109 phone (805) 962-9009 • fax (805) 962-1979
CA State License #763868

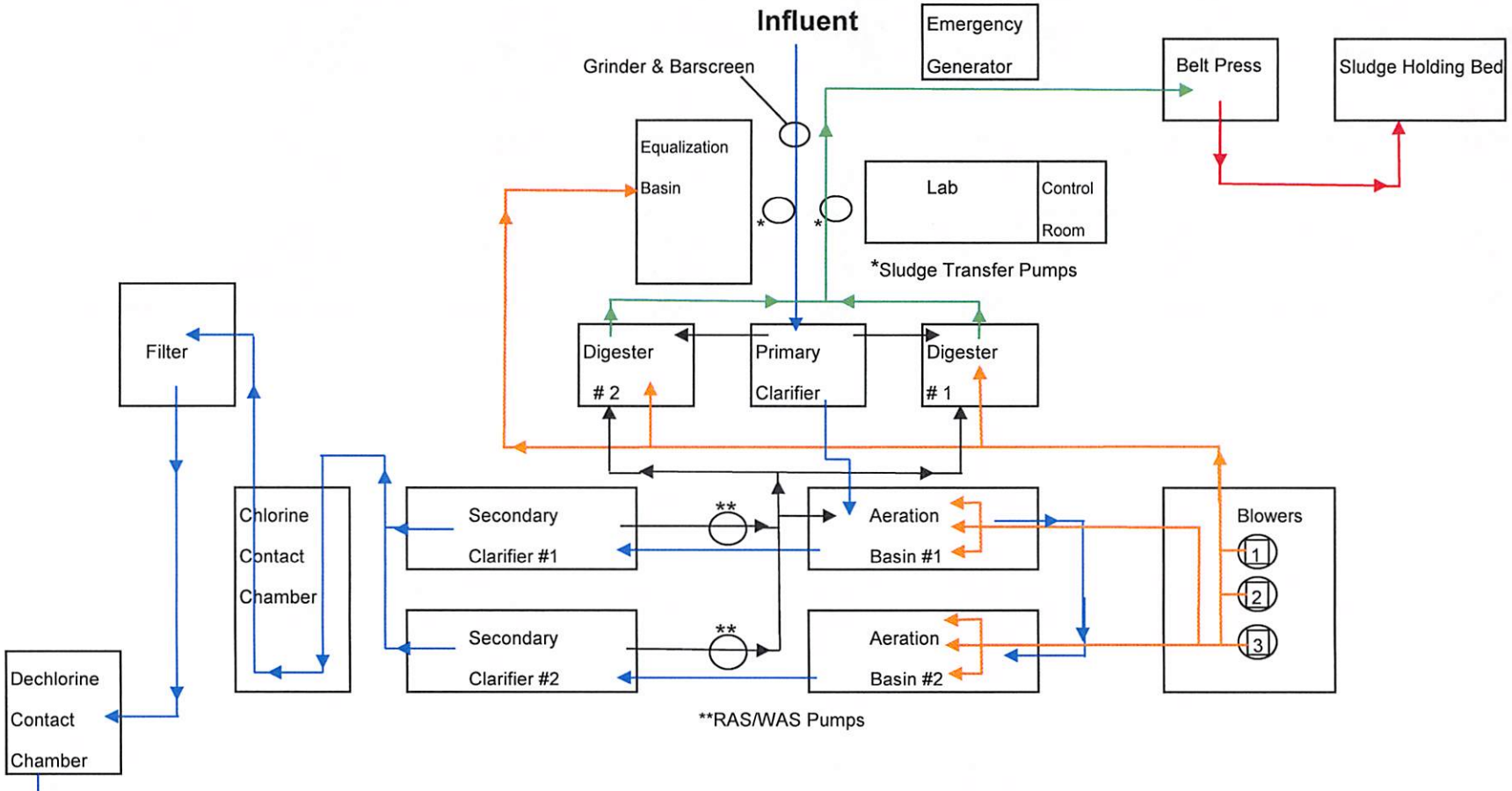
- We did not see anything lying on the pipe or any damage to any part of the outfall.

Report prepared by Rick Sanchez
Salty Dog Dive Service
October 5, 2023

Marine Contracting and Dive Service
6 Harbor Way #205, Santa Barbara, CA 93109 phone (805) 962-9009 • fax (805) 962-1979
CA State License #763868


Q8NE
R8NW
R8NE
Q8SE
R8SW
R8SE
S8SW
Q9NE
R9NW
R9NE
S9NW
S9NE
R9SW
R9SE
S9SW
S9SE
T9SW
R10NE
T10NW
N
SUMMERLAND SANITARY DISTRICT
March, 2021
Attachment B
Map Grid
District Boundary
2021 Mainline System Totals:
45,888 Feet
8.7 Miles
SUMMERLAND
Sanitary District
© OpenStreetMap (and) contributors, CC-BY-SA

Attachment C



To Ocean Outfall

Santa Barbara Channel

34° 25' 00" North Latitude 119° 35' 48" West Longitude

SUMMERLAND SANITARY DISTRICT

Treatment Plant Flow Diagram

Design Flow .3 MGD

Average Daily Flow .08 MGD

Legend:

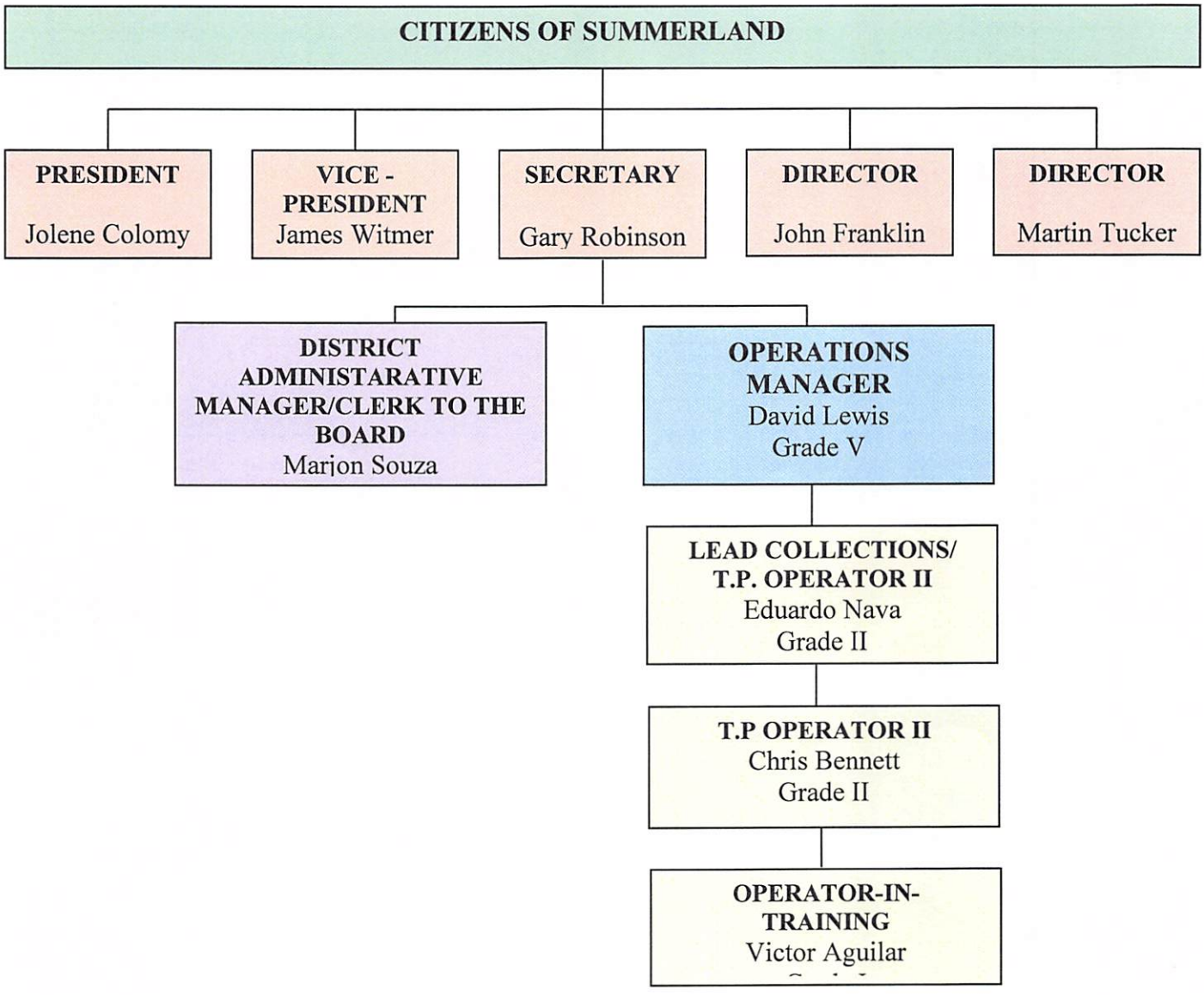
Blue	Wastewater Flow
Orange	Air Flow
Black	RAS/WAS Flow
Green	Sludge Flow to Dewatering
Red	Biosolids Handling

\\Wdmycloud\operation-files\SSD OPERATIONS FILES\FLOW DIAGRAM SSD\Treatment Plant Flow Diagram 2022

Attachment D

NPDES No. CA0048054
Order No. R3-2022-0014

SUMMERLAND SANITARY DISTRICT
ORGANIZATION CHART- December 2023



Attachment E

ENVIRONMENTAL FGL AGRICULTURAL
Analytical Chemists

September 8, 2023

Lab No. : SP 2313364
Customer No. : 2002306

Summerland Sanitary District
P.O. Box 0417
Summerland, CA 93067-0417

Laboratory Report

Introduction: This report package contains a total of 5 pages divided into 3 sections:

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(1 page)	: Results for each sample submitted.
Quality Control	(3 pages)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab No.	Matrix
Biosolids	08/07/2023	08/07/2023	SP 2313364-001	BIO

Sampling and Receipt Information:

The Sample was received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. The Sample was received, prepared and analyzed within the method specified holding times except those as listed in the table below. All samples arrived on ice. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the associated Chain of Custody and Condition Upon Receipt Form.

Samples Over Hold Time

Lab No	Analyte Method	Maximum Hold Time	Actual Hold Time
SP 2313364-001	pH	24 hours	748.5 hours

Quality Control: All samples were prepared and analyzed according to established quality control criteria. Any exceptions are noted in the Quality Control Section of this report.

Test Summary

EPA 351.2	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 6010 B	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 2540 B	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 4500-H+B	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 4500-NH3 G	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 4500-NO3 F	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)

Certification: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above and in the QC Section. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature. This report shall not be reproduced except in full, without the written approval of the laboratory.

KD: MKH

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S. Title: Laboratory Director Date: 2023-09-08

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

September 8, 2023

Summerland Sanitary District
P.O. Box 0417
Summerland, CA 93067-0417

Description : Biosolids
Project : RWQCB Biosolids Monitoring

Lab No. : SP 2313364-001
Customer No. : 2002306

Sampled On : August 7, 2023 at 11:50
Sampled By : Victor Aguilar
Received On : August 7, 2023 at 13:50
Matrix : Biosolids

Sample Results - Inorganic(Dry Weight)

Constituent	Result	RL	MDL	Units	Dil.	DQF	Sample Preparation			Sample Analysis			
Metals, Total							Date	Time	Who	Method	Date	Time	Who
Boron	108	31	2.9	mg/kg	0.9	lP	08/10/2023	06:30	ac	EPA 6010 B	08/10/2023	10:20	ac
Cadmium	1.62	1.9	0.31	mg/kg	0.9	JlP	08/10/2023	06:30	ac	EPA 6010 B	08/10/2023	10:20	ac
Chromium	17.8	3.1	2.2	mg/kg	0.9	lP	08/10/2023	06:30	ac	EPA 6010 B	08/10/2023	10:20	ac
Copper	1030	1.9	2.4	mg/kg	0.9	P	08/10/2023	06:30	ac	EPA 6010 B	08/10/2023	10:20	ac
Lead	19.0	6.2	4.5	mg/kg	0.9	lP	08/10/2023	06:30	ac	EPA 6010 B	08/10/2023	10:20	ac
Nickel	22.5	1.9	0.98	mg/kg	0.9	lP	08/10/2023	06:30	ac	EPA 6010 B	08/10/2023	10:20	ac
Phosphorus	18200	31	3.3	mg/kg	0.9	P	08/10/2023	06:30	ac	EPA 6010 B	08/10/2023	10:20	ac
Silver	4.96	6.2	1.7	mg/kg	0.9	UlP	08/10/2023	06:30	ac	EPA 6010 B	08/10/2023	10:20	ac
Zinc	1180	3.1	0.98	mg/kg	0.9	P	08/10/2023	06:30	ac	EPA 6010 B	08/10/2023	10:20	ac
Wet Chemistry													
Ammonia Nitrogen	979	49	17	mg/kg	1		08/31/2023	19:52	lcr	SM 4500-NH3 G	09/07/2023	17:36	lcr
% Moisture	83.8	0.1		%	1		08/08/2023	16:56	amm	2540G	08/09/2023	13:42	amm
Nitrate Nitrogen	1320	120		mg/kg	1		09/01/2023	08:00	lfs	SM 4500-NO3 F	09/01/2023	12:09	lfs
Nitrogen, Total Kjeldahl	66900	25000	14000	mg/kg	200		08/31/2023	14:02	sta	EPA 351.2	09/07/2023	18:37	lcr
pH	6.56	---		units	1	T	09/07/2023	16:19	krh	SM 4500-H+B	09/07/2023	16:20	krh

DQF Flags Definition:
l The MS/MSD did not meet QC criteria.
P Post Digestion Spike (PDS) not within Acceptance Range (AR).
J Reported value is estimated; detected at a concentration below the RL and above the laboratory MDL.
U Constituent results were non-detect.
T Exceeded method/regulatory-specific holding time.

ND=Non-Detected, RL=Reporting Level

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

September 8, 2023

Summerland Sanitary District

Lab No. : SP 2313364
Customer No. : 2002306

Quality Control - Metals

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Boron	3050	08/10/2023:208832AC	Blank	mg/kg		ND	<5	
			LCS	mg/kg	200.0	91.7%	85-115	
			MS	mg/kg	160.0	2.28%	75-125	435
		(SP 2312620-003)	MSD	mg/kg	180.2	3.95%	75-125	435
			MSRPD	mg/kg		8.6%	≤20	
			PDS	mg/kg	198.0	5.08%	75-125	430
Cadmium	3050	08/10/2023:208832AC	Blank	mg/kg		ND	<0.3	
			LCS	mg/kg	40.00	91.0%	85-115	
			MS	mg/kg	32.00	19.5%	75-125	435
		(SP 2312620-003)	MSD	mg/kg	36.04	18.6%	75-125	435
			MSRPD	mg/kg		6.6%	≤20	
			PDS	mg/kg	39.60	17.8%	75-125	430
Chromium	3050	08/10/2023:208832AC	Blank	mg/kg		ND	<0.5	
			LCS	mg/kg	40.00	97.8%	85-115	
			MS	mg/kg	32.00	-37%	75-125	435
		(SP 2312620-003)	MSD	mg/kg	36.04	-30.8%	75-125	435
			MSRPD	mg/kg		6.7%	≤20	
			PDS	mg/kg	39.60	-26.7%	75-125	430
Copper	3050	08/10/2023:208832AC	Blank	mg/kg		ND	<0.3	
			LCS	mg/kg	40.00	94.9%	85-115	
			MS	mg/kg	32.00	-1490%	<¼	406
		(SP 2312620-003)	MSD	mg/kg	36.04	-1310%	<1/4	
			MSRPD	mg/kg		9.0%	≤20	
			PDS	mg/kg	39.60	-1190%	75-125	430
Lead	3050	08/10/2023:208832AC	Blank	mg/kg		ND	<1	
			LCS	mg/kg	40.00	102%	85-115	
			MS	mg/kg	32.00	-13.7%	75-125	435
		(SP 2312620-003)	MSD	mg/kg	36.04	-8.35%	75-125	435
			MSRPD	mg/kg		15.7%	≤20	
			PDS	mg/kg	39.60	-6.04%	75-125	430
Nickel	3050	08/10/2023:208832AC	Blank	mg/kg		ND	<0.3	
			LCS	mg/kg	40.00	92.0%	85-115	
			MS	mg/kg	32.00	-16.1%	75-125	435
		(SP 2312620-003)	MSD	mg/kg	36.04	-12.6%	75-125	435
			MSRPD	mg/kg		7.1%	≤20	
			PDS	mg/kg	39.60	-10.2%	75-125	430
Phosphorous	3050	08/10/2023:208832AC	Blank	mg/kg		ND	<5	
			LCS	mg/kg	200.0	107%	80-120	
			MS	mg/kg	160.0	-5770%	<¼	406
		(SP 2312620-003)	MSD	mg/kg	180.2	-5070%	<1/4	
			MSRPD	mg/kg		8.2%	≤30	
			PDS	mg/kg	198.0	-4620%	75-125	430
Silver	3050	08/10/2023:208832AC	Blank	mg/kg		ND	<1	
			LCS	mg/kg	40.00	96.4%	85-115	
			MS	mg/kg	32.00	22.2%	75-125	435
		(SP 2312620-003)	MSD	mg/kg	36.04	20.8%	75-125	435

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September 8, 2023

Summerland Sanitary District

Lab No. : SP 2313364
Customer No. : 2002306

Quality Control - Metals

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
			MSRPD	mg/kg		5.1%	≤20	
			PDS	mg/kg	39.60	20.7%	75-125	430
Zinc	3050	08/10/2023:208832AC	Blank	mg/kg		ND	<0.5	
			LCS	mg/kg	40.00	99.3%	85-115	
			MS	mg/kg	32.00	-1120%	<¼	406
		(SP 2312620-003)	MSD	mg/kg	36.04	-988%	<1/4	
			MSRPD	mg/kg		4.6%	≤20	
			PDS	mg/kg	39.60	-899%	75-125	430

Definition

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.

DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.

LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.

MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.

MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.

MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.

ND : Non-detect - Result was below the DQO listed for the analyte.

PDS : PDS failed, matrix - Post Digestion Spike (PDS) not within Acceptance Range (AR) because of matrix interferences affecting this analyte. Data was accepted based on the LCS recovery.

Explanation

406 : Matrix Spike (MS) not within the Acceptance Range (AR) because of high analyte concentration in the sample. Data was accepted based on the LCS or CCV recovery.

430 : Post Digestion Spike (PDS) not within Acceptance Range (AR) because of matrix interferences affecting this analyte. Data was accepted based on the LCS recovery.

435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

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September 8, 2023

Summerland Sanitary District

Lab No. : SP 2313364
Customer No. : 2002306

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
Nitrogen, Total Kjeldahl	351.2	08/31/2023:209800STA	PDS	mg/kg		2.1500	25	435
			LCS	mg/kg	300.0	89.0%	31-149	
			MS	mg/kg	600.0	118%	0-189	
		(STK2351316-002)	MSD	mg/kg	600.0	72.8%	0-189	
			MSRPD	mg/kg		8.5%	≤80	
			MS	mg/kg	600.0	417%	<¼	406
		(STK2351656-002)	MSD	mg/kg	600.0	520%	<1/4	
			MSRPD	mg/kg		8.2%	≤80	
Ammonia Nitrogen	4500NH3B	08/31/2023:209815LCR	Blank	mg/kg		ND	<8	
			LCS	mg/kg	150.0	102%	75-127	
			MS	mg/kg	150.0	102%	75-125	
		(STK2350927-002)	MSD	mg/kg	150.0	97.7%	75-125	
			MSRPD	mg/kg		2.8%	≤26.5	
Nitrate Nitrogen	4500NO3F	09/01/2023:209836LFS	Blank	mg/kg		ND	<20	
			LCS	mg/kg	112.2	98.5%	80-120	
			MS	mg/kg	56.09	114%	10-150	
		(SP 2314028-001)	MSD	mg/kg	56.09	99.9%	10-150	
			MSRPD	mg/kg		8.5%	≤0	435
pH	9045C	(SP 2314028-001)	Dup	units		0.2%	5.84	

Definition

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.

Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.

LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.

MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.

MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.

MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.

PDS : PDS failed, matrix - Post Digestion Spike (PDS) not within Acceptance Range (AR) because of matrix interferences affecting this analyte. Data was accepted based on the LCS recovery.

Explanation

406 : Matrix Spike (MS) not within the Acceptance Range (AR) because of high analyte concentration in the sample. Data was accepted based on the LCS or CCV recovery.

435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

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Summerland Sanitary District 2023

Month	Wet Tons	%Solids	Dry Tons
January			-
February			-
March			-
April	45.32	16.8%	7.61
May			-
June			-
July			-
August			-
September			-
October			-
November			-
December	38.7	16.9%	6.54
Total	84.02	0.337	14.15