INTEGRATED
PERFORMANCE
CONSULTANTS

April 30th, 2023

Renee Purdy
Executive Officer II
California Regional Water Quality Control Board
Los Angeles Region

Attention: Information Technology Unit

Malibu Civic Center WTP — WDR: R4-2015-0051
2023 1st Quarter Monitoring Report — MRP: CI-10042

OVERVIEW

Malibu Civic Center Wastewater Treatment Plant performed well all quarter, meeting all permit limits.

SUMMARY OF NON-COMPLIANCE

There were no instances of non-compliance during this reporting period.

INFLUENT & EFFLUENT MONITORING

Monthly influent and effluent monitoring are shown in Attachment A. Quarterly effluent monitoring results are shown in Attachment B. Annual effluent monitoring results are shown in Attachment D.

WASTE HAULING

Hauling details are shown in Attachment C.

IPC, Inc. · 9297 Research Drive · Irvine, CA 92618
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GROUNDWATER AND SURFACE WATER MONITORING

The results of groundwater and surface water monitoring are provided in the attached report compiled by Rincon Consultants.

SPECIAL DISCUSSION ON LOW UVT

Low UVT has been a persistent issue since the facility was first started up in 2018. This phenomenon, was described in previous monitoring reports as excerpted below:

From the 2018 Annual Report

Consistently Low UVT

The Trojan UV Fit system was certified to achieve adequate disinfection when operated as designed on feed water with UVT of 65% or higher. It has proven very difficult to reliably achieve 65% UVT in the UV feed water. Lower than expected sewage flow and load have been primary culprits in this regard. Aggravating factors have been delays in startup of the MBT (no sludge wasting capability), mandatory evacuation of Malibu in response to the Woodley fire which decreased flow even further for nearly a month, and two months of heavy rains immediately after the fire that forced us to put a second bioreactor in service in order to meet the hydraulic challenge of treating rainwater captured on site. Various operational and mechanical solutions have been implemented to improve UVT, with limited success. The most successful method has been the installation of a temporary Alum feed system. The second most successful method has been MLSS reduction once sludge wasting became available for the first time at the end of December.

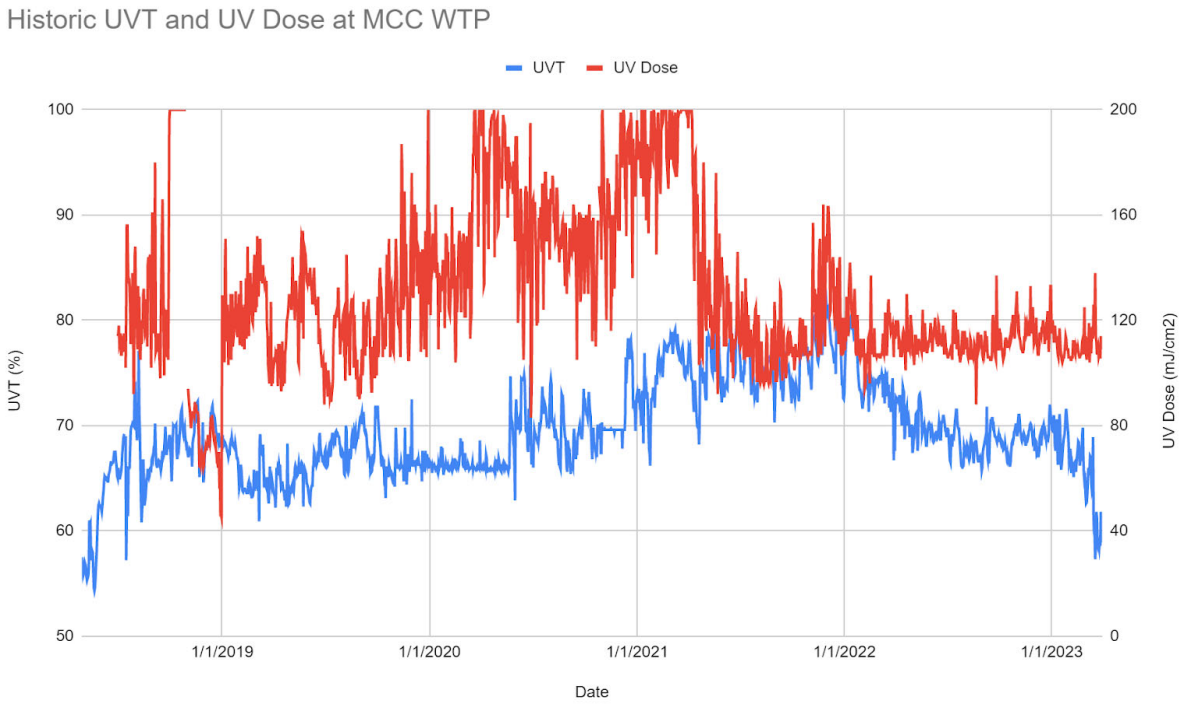
From the 2019 Annual Report

Consistently Low UVT

The Trojan UV Fit system was certified to achieve adequate disinfection when operated as designed on feed water with UVT of 65% or higher. It has proven impossible to reliably achieve 65% UVT in the UV feed water. UVT was initially controlled by adding alum, but this was subsequently abandoned in favor of filtrate chlorination at 5 to 10 mg/L.

The reason we ultimately abandoned use of Alum for UVT improvement in favor of Chlorine was that Alum became ineffective. As an Alum substitute, Chlorine was effective until the end of February 2023, with February 28th being the first day that the average UVT was lower than 65% since 2019, coming in at 64.7%. In the days leading up to this we had been increasing Chlorine dose and obtaining little or no improvement similar to our previous experience with Alum. The low UVT problem continued and worsened throughout March. In subsequent testing as this problem developed we have found that up to 2% improvement in UVT can be achieved with a Chlorine dose of 4 mg/L, but Chlorine doses above 4 mg/L provide no additional benefit in UVT improvement. This discovery prompted us to try using Alum again, but Alum still provided no benefit at all in UVT reduction.

Below is a graph of Historic UVT and UV Dose at MCC WTP since startup, that clearly illustrates the rapid drop in UVT that began at the end of February 2023.



Moving forward, we are currently experimenting with Ferric Chloride as a UVT enhancer. Preliminary jar testing indicates that some UVT improvement can be achieved with Ferric Chloride, so we are undertaking a pilot test to see if we can reproduce the jar test results in the process.

In spite of low UVT we have so far not experienced any problems with disinfection, with effluent bacteria typically below detection levels. One aspect of this is that we intentionally maintain the UV dose above 100 mJ/cm2, when NWRI guidelines only require 80 mJ/cm2. We intend to continue this “overdosing” as long as necessary and will factor it into the Phase II design.

All analyses were conducted at a laboratory certified for such analyses by the California Department of Health Services, and in accordance with current United States Environmental Protection Agency (USEPA) guideline procedures or as specified in this Monitoring Program. A copy of the ELAP certificate for Sierra Analytical and copies of the completed chain of custody forms are attached.

I certify under penalty of law that this document, including all attachments and supplemental information, were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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 a fine and imprisonment.

Executed on the 30th day of April 2023, at Irvine, CA.

Sincerely,



Ric Vardel, IPC Inc.
Chief Plant Operator, License V-4457

Integrated Performance Consultants, Inc.
Contract Operator, License CO-0083

ATTACHMENT A: DAILY, WEEKLY, & MONTHLY INFLUENT & EFFLUENT DATA

	INFLUENT			EFFLUENT																																		
	DAILY	WEEKLY		DAILY															WEEKLY											MONTHLY								
	Q Total Influent	TSS	BOD	Q Total Effluent	Q Lower Reuse	Q Upper Reuse	Q Injection	Q Percolation	Turbidity Avg	Turbidity Max	Turbidity > 0.2	UVT	UV Dose	pH	Total Coliform	Total Coliform	Fecal Coliform	Resid Cl2	BOD	BOD Removal	TSS	TSS Removal	NOx-N	NO3-N	NO2-N	NH3-N	TKN	Organic-N	Total-N	Oil & Grease	Total-P	TDS	Sulfate	Chloride	Boron	MBAS
Units	kgal	mg/L	mg/L	kgal	kgal	kgal	kgal	kgal	ntu	ntu	%	%	mJ/cm2	units	mpn	mpn	mpn	mg/L	mg/L	%	mg/L	%	mg/L	mg/L	mg/L	mpn	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Limit 1	191			191				50	0.2	0.5	5	65	80	6.5		2.2			20	85	15	85	8	8	1					10		2,000	500	500	2	0.5
Limit 2														8.5	23	7 day			30		40									15							
Limit 3															240	med			45		45																
01/01/2023	Sun	55.7			70.3	0.0	0.3	70.0	0.0	0.01	0.02	0.00	70.7	117.3	7.8	1.79	1.79	1.79	0.070																				
01/02/2023	Mon	50.2			54.4	0.0	4.1	50.2	0.0	0.01	0.02	0.00	69.6	114.6	7.6	1.79	1.79	1.79	0.060																				
01/03/2023	Tue	52.8			55.2	0.0	4.4	50.8	0.0	0.01	0.02	0.00	69.5	119.6	7.6	1.79	1.79	1.79	0.049																				
01/04/2023	Wed	69.1	91	187	60.5	0.0	0.4	60.0	0.0	0.01	0.02	0.00	69.6	116.6	7.7	1.79	1.79	1.79	0.120	1.9	99.0	0.9	99.0	1.1	1.1	0.05	0.27	1.02	0.75	2.12								
01/05/2023	Thu	111.4			134.1	0.0	0.3	133.8	0.0	0.01	0.14	0.00	71.0	112.4	7.5	1.79	1.79	1.79	0.049																				
01/06/2023	Fri	63.9			64.2	0.0	0.3	63.9	0.0	0.01	0.02	0.00	69.8	112.1	7.4	1.79	1.79	1.79	0.049																				
01/07/2023	Sat	59.9			60.5	0.0	0.3	60.2	0.0	0.01	0.02	0.00	68.1	118.1	7.7	1.79	1.79	1.79	0.049																				
01/08/2023	Sun	54.4			64.2	0.0	0.4	63.8	0.0	0.01	0.02	0.00	67.6	115.1	7.4	1.79	1.79	1.79	0.049																				
01/09/2023	Mon	112.5			107.0	0.0	6.4	100.6	0.0	0.01	0.02	0.00	68.8	111.6	7.6	1.79	1.79	1.79	0.080																				
01/10/2023	Tue	70.8	167	160	110.3	0.0	0.3	110.0	0.0	0.01	0.02	0.00	70.6	114.2	7.4	1.79	1.79	1.79	0.140	1.9	98.8	1.0	99.4	0.4	0.4	0.05	0.10	0.94	0.84	1.39								
01/11/2023	Wed	63.0			62.6	0.0	0.4	62.2	0.0	0.01	0.02	0.00	68.9	110.5	7.8	1.79	1.79	1.79	0.050																				
01/12/2023	Thu	61.3			61.6	0.0	0.4	61.3	0.0	0.01	0.02	0.00	66.4	106.6	7.6	1.79	1.79	1.79	0.050																				
01/13/2023	Fri	61.9			65.5	0.0	0.3	65.1	0.0	0.01	0.02	0.00	66.4	105.8	7.5	1.79	1.79	1.79	0.080																				
01/14/2023	Sat	97.2			104.6	0.0	0.4	104.2	0.0	0.01	0.02	0.00	69.4	110.7	7.7	1.79	1.79	1.79	0.100																				
01/15/2023	Sun	70.3			84.9	0.0	0.4	84.5	0.0	0.01	0.02	0.00	71.1	117.1	7.6	1.79	1.79	1.79	0.080																				
01/16/2023	Mon	78.5			86.2	0.0	1.6	84.6	0.0	0.01	0.02	0.00	70.1	114.4	7.6	1.79	1.79	1.79	0.140																				
01/17/2023	Tue	64.1	176	287	60.9	0.0	0.4	60.5	0.0	0.01	0.02	0.00	67.4	109.0	7.5	1.79	1.79	1.79	0.050	1.9	99.3	0.9	99.5	1.7	1.6	0.05	0.09	1.04	0.95	2.73								
01/18/2023	Wed	73.7			74.2	0.0	0.3	73.9	0.0	0.01	0.02	0.00	65.8	107.3	7.5	1.79	1.79	1.79	0.060																				
01/19/2023	Thu	63.0			70.6	0.0	9.8	60.8	0.0	0.01	0.02	0.00	66.3	105.2	7.4	1.79	1.79	1.79	0.090																				
01/20/2023	Fri	69.5			61.2	0.0	4.3	56.9	0.0	0.01	0.02	0.00	67.0	104.0	7.6	1.79	1.79	1.79	0.080																				
01/21/2023	Sat	76.9			71.0	0.0	0.4	70.6	0.0	0.01	0.02	0.00	67.9	104.6	7.6	1.79	1.79	1.79	0.100																				
01/22/2023	Sun	73.5			70.6	0.0	0.6	70.0	0.0	0.01	0.02	0.00	68.6	105.6	7.4	1.79	1.79	1.79	0.090																				
01/23/2023	Mon	72.4			76.3	0.0	16.1	60.2	0.0	0.01	0.02	0.00	68.9	106.3	7.5	1.79	1.79	1.79	0.049																				
01/24/2023	Tue	75.5	192	172	75.4	0.0	4.3	71.1	0.0	0.01	0.02	0.00	69.2	108.3	7.6	1.79	1.79	1.79	0.090	1.9	98.9	0.9	99.5	2.3	2.3	0.05	0.09	0.50	0.41	2.81	4.9	0.4	1,228	371	211	0.36	0.19
01/25/2023	Wed	84.1			83.6	0.0	3.5	80.1	0.0	0.01	0.02	0.00	70.0	110.9	7.8	1.79	1.79	1.79	0.120																				
01/26/2023	Thu	88.0			82.5	0.0	4.5	78.0	0.0	0.01	0.02	0.00	71.1	113.8	7.6	1.79	1.79	1.79	0.150																				
01/27/2023	Fri	79.3			80.2	0.0	0.2	80.0	0.0	0.01	0.02	0.00	71.6	113.5	7.7	1.79	1.79	1.79	0.110																				
01/28/2023	Sat	80.3			79.4	0.0	0.2	79.1	0.0	0.01	0.02	0.00	70.8	108.9	7.7	1.79	1.79	1.79	0.060																				
01/29/2023	Sun	74.6			78.6	0.0	2.5	76.2	0.0	0.01	0.02	0.00	70.0	108.6	7.6	1.79	1.79	1.79	0.060																				
01/30/2023	Mon	61.9			78.5	0.0	0.2	78.2	0.0	0.03	0.21	0.01	69.4	109.5	7.6	1.79	1.79	1.79	0.070																				
01/31/2023	Tue	58.4	98	238	49.7	0.0	0.4	49.3	0.0	0.01	0.02	0.00	68.3	106.2	7.5	1.79	1.79	1.79	0.080	5.0	97.9	0.9	99.1	0.2	0.1	0.05	0.10	0.80	0.70	0.98								
TOTAL	2,228			2,339	0.0	68.4	2,270	0.0																														
MAX	112.5	192	287	134.1	0.0	16.1	133.8	0.0	0.03	0.21	0.01	71.6	119.6	7.8	1.79	1.79	1.79	0.150	5.0	99.3	1.0	99.5	2.3	2.3	0.05	0.27	1.04	0.95	2.81	4.9	0.4	1,228	371	211	0.36	0.19
AVG	71.9	145	209	75.4	0.0	2.2	73.2	0.0	0.01	0.03	0.00	69.0	110.9	7.6	1.79	1.79	1.79	0.080	2.5	98.8	0.9	99.3	1.1	1.1	0.05	0.13	0.86	0.73	2.01	4.9	0.4	1,228	371	211	0.36	0.19
MIN	50.2	91	160	49.7	0.0	0.2	49.3	0.0	0.01	0.02	0.00	65.8	104.0	7.4	1.79	1.79	1.79	0.049	1.9	97.9	0.9	99.0	0.2	0.1	0.05	0.09	0.50	0.41	0.98	4.9	0.4	1,228	371	211	0.36	0.19

KEY:	SE	Sample Error	AE	Analytical Error	NS	No Sample	PND	Results Pending	###	Range Limit 1 Exceeded	###	Range Limit 2 Exceeded

ATTACHMENT A: DAILY, WEEKLY, & MONTHLY INFLUENT & EFFLUENT DATA

	INFLUENT			EFFLUENT																																		
	DAILY	WEEKLY		DAILY																WEEKLY												MONTHLY							
	Q Total Influent	TSS	BOD	Q Total Effluent	Q Lower Reuse	Q Upper Reuse	Q Injection	Q Percolation	Turbidity Avg	Turbidity Max	Turbidity > 0.2	UVT	UV Dose	pH	Total Coliform	Total Coliform	Fecal Coliform	Resid Cl2	BOD	BOD Removal	TSS	TSS Removal	NOx-N	NO3-N	NO2-N	NH3-N	TKN	Organic-N	Total-N	Oil & Grease	Total-P	TDS	Sulfate	Chloride	Boron	MBAS		
Units	kgal	mg/L	mg/L	kgal	kgal	kgal	kgal	kgal	ntu	ntu	%	%	mJ/cm2	units	mpn	mpn	mpn	mg/L	mg/L	%	mg/L	%	mg/L	mg/L	mg/L	mpn	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		
Limit 1	191			191				50	0.2	0.5	5	65	80	6.5		2.2			20	85	15	85	8	8	1					10		2,000	500	500	2	0.5		
Limit 2														8.5	23	7 day			30		40									15								
Limit 3															240	med			45		45																	
02/01/2023	Wed	63.7			62.3	0.0	0.3	61.9	0.0	0.01	0.02	0.00	66.4	106.4	7.4	1.79	1.79	1.79	0.080																				
02/02/2023	Thu	60.1			70.6	0.0	10.6	60.0	0.0	0.01	0.02	0.00	66.7	106.2	7.4	1.79	1.79	1.79	0.080																				
02/03/2023	Fri	61.3			50.5	0.0	21.7	28.7	0.0	0.01	0.02	0.00	67.8	105.9	6.6	1.79	1.79	1.79	0.080																				
02/04/2023	Sat	70.6			62.5	0.0	0.2	62.3	0.0	0.01	0.02	0.00	67.2	105.5	7.6	1.79	1.79	1.79	0.170																				
02/05/2023	Sun	63.8			69.9	0.0	11.0	58.9	0.0	0.01	0.02	0.00	65.6	105.2	7.6	1.79	1.79	1.79	0.440																				
02/06/2023	Mon	57.9			51.6	0.0	13.2	38.4	0.0	0.01	0.09	0.00	65.6	106.5	7.1	1.79	1.79	1.79	0.049																				
02/07/2023	Tue	68.1	119	259	68.9	0.0	0.6	68.3	0.0	0.01	0.02	0.00	66.1	105.9	6.9	1.79	1.79	1.79	0.100	1.9	99.3	0.9	99.2	0.2	0.1	0.05	0.14	2.30	2.16	2.47	4.9	0.2	1,004	246	182	0.28	0.19	
02/08/2023	Wed	50.8			50.0	0.0	0.3	49.7	0.0	0.01	0.03	0.00	65.7	112.4	7.4	1.79	1.79	1.79	0.049																				
02/09/2023	Thu	59.2			49.0	0.0	1.0	48.0	0.0	0.01	0.02	0.00	65.1	112.5	7.4	1.79	1.79	1.79	0.080																				
02/10/2023	Fri	60.7			50.4	0.0	0.6	49.8	0.0	0.01	0.02	0.00	66.4	111.4	7.6	1.79	1.79	1.79	0.070																				
02/11/2023	Sat	64.6			56.6	0.0	0.5	56.0	0.0	0.01	0.02	0.00	66.5	107.9	7.6	1.79	1.79	1.79	0.050																				
02/12/2023	Sun	53.0			58.3	0.0	0.3	58.0	0.0	0.01	0.02	0.00	66.1	107.0	7.5	1.79	1.79	1.79	0.060																				
02/13/2023	Mon	53.6			49.9	0.0	0.9	49.1	0.0	0.01	0.21	0.01	65.6	110.3	7.4	1.79	1.79	1.79	0.050																				
02/14/2023	Tue	66.0	96	151	57.6	0.0	0.3	57.3	0.0	0.01	0.15	0.00	66.4	108.9	7.4	1.79	1.79	1.79	0.100	1.9	98.7	0.9	99.1	1.9	1.9	0.05	0.13	1.35	1.22	3.27								
02/15/2023	Wed	59.0			61.8	0.0	0.2	61.5	0.0	0.01	0.02	0.00	67.1	108.8	7.5	1.79	1.79	1.79	0.049																				
02/16/2023	Thu	61.7			69.8	0.0	15.1	54.7	0.0	0.01	0.02	0.00	67.7	110.5	7.4	1.79	1.79	1.79	0.049																				
02/17/2023	Fri	63.5			53.2	0.0	25.0	28.2	0.0	0.01	0.02	0.00	68.5	108.5	7.4	1.79	1.79	1.79	0.049																				
02/18/2023	Sat	61.1			59.5	0.0	0.7	58.8	0.0	0.01	0.02	0.00	68.4	107.5	7.6	1.79	1.79	1.79	0.049																				
02/19/2023	Sun	61.7			64.2	0.0	10.6	53.6	0.0	0.01	0.02	0.00	67.5	106.3	7.6	1.79	1.79	1.79	0.049																				
02/20/2023	Mon	65.1			61.4	0.0	33.5	28.0	0.0	0.01	0.24	0.01	66.2	106.5	7.4	1.79	1.79	1.79	0.049																				
02/21/2023	Tue	67.8			64.3	0.0	0.8	63.5	0.0	0.01	0.11	0.00	66.7	106.6	7.6	1.79	1.79	1.79	0.050		99.5	1.0	99.6	0.1	0.0	0.05	0.14	0.57	0.43	0.67								
02/22/2023	Wed	58.0	278	376	76.7	0.0	6.4	59.9	10.5	0.01	0.03	0.00	66.8	107.4	7.5	1.79	1.79	1.79	0.049	2.0																		
02/23/2023	Thu	55.6			50.6	0.0	2.1	48.5	0.0	0.01	0.02	0.00	67.0	108.4	7.5	1.79	1.79	1.79	0.049																				
02/24/2023	Fri	101.6			142.8	0.0	1.3	141.4	0.0	0.01	0.02	0.00	69.1	111.5	7.7	1.79	1.79	1.79	0.080																				
02/25/2023	Sat	91.8			127.1	0.0	1.6	125.5	0.0	0.01	0.02	0.00	69.8	112.6	7.6	1.79	1.79	1.79	0.049																				
02/26/2023	Sun	68.5			65.6	0.0	0.8	64.8	0.0	0.01	0.02	0.00	66.9	107.4	7.5	1.79	1.79	1.79	0.100																				
02/27/2023	Mon	70.5			70.7	0.0	1.0	69.7	0.0	0.01	0.02	0.00	65.4	116.5	7.4	1.79	1.79	1.79	0.070																				
02/28/2023	Tue	74.3	138	210	68.6	0.0	1.5	67.1	0.0	0.01	0.02	0.00	64.7	125.4	7.4	1.79	1.79	1.79	0.110	1.9	99.1	0.9	99.3	1.1	1.0	0.05	0.38	1.87	1.49	2.95								
TOTAL	1,813			1,844	0.0	162.2	1,672	10.5																														
MAX	101.6	278	376	142.8	0.0	33.5	141.4	10.5	0.01	0.24	0.01	69.8	125.4	7.7	1.79	1.79	1.79	0.440	2.0	99.5	1.0	99.6	1.9	1.9	0.05	0.38	2.30	2.16	3.27	4.9	0.2	1,004	246	182	0.28	0.19	
AVG	64.8	158	249	65.9	0.0	5.8	59.7	0.4	0.01	0.05	0.00	66.7	109.1	7.4	1.79	1.79	1.79	0.082	1.9	99.1	0.9	99.3	0.8	0.8	0.05	0.20	1.52	1.33	2.34	4.9	0.2	1,004	246	182	0.28	0.19	
MIN	50.8	96	151	49.0	0.0	0.2	28.0	0.0	0.01	0.02	0.00	64.7	105.2	6.6	1.79	1.79	1.79	0.049	1.9	98.7	0.9	99.1	0.1	0.0	0.05	0.13	0.57	0.43	0.67	4.9	0.2	1,004	246	182	0.28	0.19	

KEY:	SE	Sample Error	AE	Analytical Error	NS	No Sample	PND	Results Pending	###	Range Limit 1 Exceeded	###	Range Limit 2 Exceeded

ATTACHMENT A: DAILY, WEEKLY, & MONTHLY INFLUENT & EFFLUENT DATA

	INFLUENT			EFFLUENT																																		
	DAILY	WEEKLY		DAILY															WEEKLY												MONTHLY							
	Q Total Influent	TSS	BOD	Q Total Effluent	Q Lower Reuse	Q Upper Reuse	Q Injection	Q Percolation	Turbidity Avg	Turbidity Max	Turbidity > 0.2	UVT	UV Dose	pH	Total Coliform	Total Coliform	Fecal Coliform	Resid Cl2	BOD	BOD Removal	TSS	TSS Removal	NOx-N	NO3-N	NO2-N	NH3-N	TKN	Organic-N	Total-N	Oil & Grease	Total-P	TDS	Sulfate	Chloride	Boron	MBAS		
Units	*kgal*	*mg/L*	*mg/L*	*kgal*	*kgal*	*kgal*	*kgal*	*kgal*	*ntu*	*ntu*	*%*	*%*	*mJ/cm2*	*units*	*mpn*	*mpn*	*mpn*	*mg/L*	*mg/L*	*%*	*mg/L*	*%*	*mg/L*	*mg/L*	*mg/L*	*mpn*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*		
Limit 1	191			191				50	0.2	0.5	5	65	80	6.5		2.2			20	85	15	85	8	8	1					10		2,000	500	500	2	0.5		
Limit 2														8.5	23	7 day			30		40									15								
Limit 3															240	med			45		45																	
03/01/2023	Wed	80.5			94.9	0.0	0.8	94.1	0.0	0.01	0.02	0.00	64.9	109.4	7.4	1.79	1.79	1.79	0.070																				
03/02/2023	Thu	70.3			55.0	0.0	12.1	43.0	0.0	0.01	0.02	0.00	63.5	113.8	7.5	1.79	1.79	1.79	0.049																				
03/03/2023	Fri	76.3			79.9	0.0	14.9	65.0	0.0	0.01	0.02	0.00	62.6	107.2	7.4	1.79	1.79	1.79	0.110																				
03/04/2023	Sat	75.5			58.6	0.0	0.9	57.7	0.0	0.01	0.02	0.00	62.7	105.5	7.6	1.79	1.79	1.79	0.240																				
03/05/2023	Sun	66.2			65.5	0.0	11.5	54.0	0.0	0.01	0.02	0.00	63.5	113.1	7.5	1.79	1.79	1.79	0.060																				
03/06/2023	Mon	65.6			66.0	0.0	20.7	45.3	0.0	0.01	0.02	0.00	64.9	107.7	7.5	1.79	1.79	1.79	0.280																				
03/07/2023	Tue	71.0	218	85	67.2	0.0	1.0	66.2	0.0	0.01	0.02	0.00	66.0	113.1	7.5	1.79	1.79	1.79	0.130	1.9	97.8	0.9	97.8	2.0	2.0	0.05	0.22	0.19	0.00	2.21								
03/08/2023	Wed	61.1			60.8	0.0	0.9	59.9	0.0	0.01	0.02	0.00	65.3	119.1	7.5	1.79	1.79	1.79	0.050																				
03/09/2023	Thu	62.8			68.7	0.0	1.5	67.2	0.0	0.01	0.02	0.00	65.9	104.5	7.4	1.79	1.79	1.79	0.080																				
03/10/2023	Fri	85.0			107.0	0.0	0.8	106.2	0.0	0.01	0.02	0.00	67.1	109.4	7.4	1.79	1.79	1.79	0.049																				
03/11/2023	Sat	74.2			57.6	0.0	0.7	56.9	0.0	0.01	0.02	0.00	67.0	107.6	7.6	1.79	1.79	1.79	0.049																				
03/12/2023	Sun	72.7			72.5	0.0	0.8	71.8	0.0	0.01	0.02	0.00	64.6	107.6	7.9	1.79	1.79	1.79	0.049																				
03/13/2023	Mon	67.6			70.4	0.0	0.9	69.6	0.0	0.01	0.20	0.00	63.9	117.4	7.5	1.79	1.79	1.79	0.049																				
03/14/2023	Tue	131.8	133	261	106.0	0.0	0.8	105.2	0.0	0.01	0.13	0.00	64.2	116.6	7.3	1.79	1.79	1.79	0.140	1.9	99.3	0.9	99.3	1.0	1.0	0.05	0.17	0.47	0.30	1.51								
03/15/2023	Wed	136.3			161.3	0.0	1.0	160.3	0.0	0.01	0.02	0.00	68.9	112.8	7.6	1.79	1.79	1.79	0.110																				
03/16/2023	Thu	94.5			94.0	0.0	0.8	93.1	0.0	0.01	0.02	0.00	61.4	126.0	7.6	1.79	1.79	1.79	0.060																				
03/17/2023	Fri	91.4			108.9	0.0	0.9	108.0	0.0	0.01	0.02	0.00	59.8	116.5	7.6	1.79	1.79	1.79	0.090																				
03/18/2023	Sat	86.8			89.5	0.0	0.8	88.8	0.0	0.01	0.02	0.00	59.6	121.9	7.5	1.79	1.79	1.79	0.049																				
03/19/2023	Sun	70.7			81.6	0.0	0.9	80.7	0.0	0.01	0.20	0.00	57.3	137.7	7.7	1.79	1.79	1.79	0.049																				
03/20/2023	Mon	71.7			79.7	0.0	1.2	78.4	0.0	0.01	0.14	0.00	59.0	114.4	7.6	1.79	1.79	1.79	0.110																				
03/21/2023	Tue	93.2	152	85	107.7	0.0	0.8	107.0	0.0	0.01	0.09	0.00	61.8	112.1	7.5	1.79	1.79	1.79	0.050	1.9	97.8	0.9	99.4	0.1	0.0	0.05	0.15	1.42	1.27	1.51								
03/22/2023	Wed	89.2			80.0	0.0	0.7	79.2	0.0	0.01	0.02	0.00	61.2	106.7	7.6	1.79	1.79	1.79	0.049																				
03/23/2023	Thu	82.4			73.8	0.0	0.6	73.2	0.0	0.01	0.03	0.00	58.9	108.6	7.4	1.79	1.79	1.79	0.049																				
03/24/2023	Fri	83.4			85.2	0.0	0.6	84.6	0.0	0.01	0.26	0.01	58.5	110.2	7.4	1.79	1.79	1.79	0.160																				
03/25/2023	Sat	84.7			76.2	0.0	0.6	75.6	0.0	0.01	0.02	0.00	58.7	105.6	7.6	1.79	1.79	1.79	0.049																				
03/26/2023	Sun	78.8			77.2	0.0	10.2	67.0	0.0	0.01	0.02	0.00	58.3	107.3	7.6	1.79	1.79	1.79	0.160																				
03/27/2023	Mon	64.6			61.8	0.0	31.7	30.1	0.0	0.01	0.02	0.00	58.9	106.2	7.6	1.79	1.79	1.79	0.049																				
03/28/2023	Tue	67.4	177	281	58.6	0.0	0.5	58.1	0.0	0.01	0.02	0.00	58.6	106.4	7.5	1.79	1.79	1.79	0.049	1.9	99.3	1.0	99.4	1.2	1.2	0.05	0.49	1.33	0.84	2.55								
03/29/2023	Wed	127.2			130.0	0.0	0.5	129.5	0.0	0.01	0.02	0.00	61.8	113.5	7.5	1.79	1.79	1.79	0.049																				
03/30/2023	Thu	101.7			96.9	0.0	0.6	96.3	0.0	0.01	0.02	0.00	60.9	112.2	7.4	1.79	1.79	1.79	0.049																				
03/31/2023	Fri	86.4			92.9	0.0	0.5	92.4	0.0	0.01	0.13	0.00	58.9	109.2	7.5	1.79	1.79	1.79	0.049																				
TOTAL	2,571			2,585	0.0	121.1	2,464	0.0																														
MAX	136.3	218	281	161.3	0.0	31.7	160.3	0.0	0.01	0.26	0.01	68.9	137.7	7.9	1.79	1.79	1.79	0.280	1.9	99.3	1.0	99.4	2.0	2.0	0.05	0.49	1.42	1.27	2.55	4.9	0.1	1,088	416	188	0.50	0.06	
AVG	82.9	170	178	83.4	0.0	3.9	79.5	0.0	0.01	0.05	0.00	62.2	112.2	7.5	1.79	1.79	1.79	0.085	1.9	98.5	0.9	99.0	1.1	1.0	0.05	0.26	0.85	0.60	1.94	4.9	0.1	1,088	416	188	0.50	0.06	
MIN	61.1	133	85	55.0	0.0	0.5	30.1	0.0	0.01	0.02	0.00	57.3	104.5	7.3	1.79	1.79	1.79	0.049	1.9	97.8	0.9	97.8	0.1	0.0	0.05	0.15	0.19	0.00	1.51	4.9	0.1	1,088	416	188	0.50	0.06	

KEY:	SE	Sample Error	AE	Analytical Error	NS	No Sample	PND	Results Pending

###	Range Limit 1 Exceeded	###	Range Limit 2 Exceeded

ATTACHMENT B: QUARTERLY EFFLUENT

	>> DATE >>		2/7						
	MCL	Units	Q1	Q2	Q3	Q4	MAX	AVG	MIN
A1 - Inorganic Chemicals									
Aluminum	1	mg/L	25.8				25.8	25.8	25.8
Antimony	0.006	mg/L	0.9				0.9	0.9	0.9
Arsenic	0.01	mg/L	0.9				0.9	0.9	0.9
Asbestos	7	MFL	0.19				0.19	0.19	0.19
Barium	1	mg/L	41				41	41	41
Beryllium	0.004	mg/L	0.19				0.19	0.19	0.19
Cadmium	0.005	mg/L	0.19				0.19	0.19	0.19
Chromium	0.05	mg/L	4.1				4.1	4.1	4.1
Cyanide	0.15	mg/L	0.006				0.006	0.006	0.006
Mercury	0.002	mg/L	0.49				0.49	0.49	0.49
Nickel	0.1	mg/L					0	#DIV/0!	0
Selenium	0.05	mg/L	2.8				2.8	2.8	2.8
Thallium	0.002	mg/L	0.9				0.9	0.9	0.9
Perchlorate	0.006	mg/L	0.19				0.19	0.19	0.19
Fluoride	2	mg/L	1.25				1.25	1.25	1.25
A2 - Radioactivity									
Radium-226 + Radium-228	5	pCi/L	0.829				0.829	0.829	0.829
Gross Alpha Particle Activity[1]	15	pCi/L	7.07				7.07	7.07	7.07
Tritium	20,000	pCi/L	434				434	434	434
Strontium-90	8	pCi/L	1.33				1.33	1.33	1.33
Gross Beta Particle Activity	50	pCi/L	11.9				11.9	11.9	11.9
Uranium	20	pCi/L	1.8				1.8	1.8	1.8
A3 - Volatile Organic Chemicals									
Benzene	0.001	mg/L	0.49				0.49	0.49	0.49
Carbon Tetrachloride (CTC)	0.0005	mg/L	0.49				0.49	0.49	0.49
1,2-Dichlorobenzene	0.6	mg/L	11.3				11.3	11.3	11.3
1,4-Dichlorobenzene	0.005	mg/L	0.49				0.49	0.49	0.49
1,1-Dichloroethane	0.005	mg/L	0.49				0.49	0.49	0.49
1,2-Dichloroethane (1,2-DCA)	0.0005	mg/L	0.49				0.49	0.49	0.49
1,1-Dichloroethene (1, 1-DCE)	0.006	mg/L	0.49				0.49	0.49	0.49
Cis-1,2-Dichloroethylene	0.006	mg/L	0.49				0.49	0.49	0.49
Trans-1,2-Dichloroethylene	0.01	mg/L	0.49				0.49	0.49	0.49
Dichloromethane	0.005	mg/L	0.49				0.49	0.49	0.49
1,2-Dichloropropane	0.005	mg/L	0.49				0.49	0.49	0.49
1,3-Dichloropropene	0.0005	mg/L	0.49				0.49	0.49	0.49
Ethylbenzene	0.3	mg/L	0.49				0.49	0.49	0.49
Methyl-tert-butyl-ether (MTBE)	0.013	mg/L	1.9				1.9	1.9	1.9
Monochlorobenzene	0.07	mg/L	0.49				0.49	0.49	0.49
Styrene	0.1	mg/L	0.49				0.49	0.49	0.49
1,1,2,2-Tetrachloroethane	0.001	mg/L	0.49				0.49	0.49	0.49
Tetrachloroethylene (PCE)	0.005	mg/L	0.49				0.49	0.49	0.49
Toluene	0.15	mg/L	0.49				0.49	0.49	0.49
1,2,4-Trichlorobenzene	0.005	mg/L	0.49				0.49	0.49	0.49
1, 1, 1-Trichloroethane	0.2	mg/L	0.49				0.49	0.49	0.49
1, 1,2-Trichloroethane	0.005	mg/L	0.49				0.49	0.49	0.49
Trichloroethylene (TCE)	0.005	mg/L	0.49				0.49	0.49	0.49
Trichlorofluoromethane	0.15	mg/L	0.49				0.49	0.49	0.49
1, 1,2-Trichloro-1,2,2-Trifluoroethane	1.2	mg/L	4.9				4.9	4.9	4.9
Vinyl Chloride	0.0005	mg/L	0.49				0.49	0.49	0.49
Xylene (m,p)	1.75	mg/L	0.49				0.49	0.49	0.49

Notes:
1) Including Radium-226 but Excluding Radon and Uranium)

	>> DATE >>		2/7						
	MCL	Units	Q1	Q2	Q3	Q4	MAX	AVG	MIN
A3 - Non-Volatile Synthetic Organics									
Alachlor	0.002	mg/L	0.09				0.09	0.09	0.09
Atrazine	0.001	mg/L	0.09				0.09	0.09	0.09
Bentazon	0.018	mg/L	1.9				1.9	1.9	1.9
Benzo(a)pyrene	0.0002	mg/L	0.09				0.09	0.09	0.09
Carbofuran	0.018	mg/L					0	ND	0
Chlordane	0.0001	mg/L	0.49				0.49	0.49	0.49
2,4-D	0.07	mg/L	0.39				0.39	0.39	0.39
Dalapon	0.2	mg/L	0.39				0.39	0.39	0.39
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	mg/L	0.009				0.009	0.009	0.009
Di(2-ethylhexyl)adipate	0.4	mg/L	4.9				4.9	4.9	4.9
Di(2-ethylhexyl)phthalate	0.004	mg/L	2.9				2.9	2.9	2.9
Dinoseb	0.007	mg/L	0.39				0.39	0.39	0.39
Diquat	0.02	mg/L	3.9				3.9	3.9	3.9
Endothall	0.1	mg/L	44.99				44.99	44.99	44.99
Endrin	0.002	mg/L	0.009				0.009	0.009	0.009
Ethylene Dibromide (EDB)	0.00005	mg/L	0.019				0.019	0.019	0.019
Glyphosate	0.7	mg/L	4.9				4.9	4.9	4.9
Heptachlor	0.00001	mg/L	0.009				0.009	0.009	0.009
Heptachlor Epoxide	0.00001	mg/L	0.009				0.009	0.009	0.009
Hexachlorobenzene	0.001	mg/L	0.049				0.049	0.049	0.049
Hexachlorocyclopentadiene	0.05	mg/L	0.09				0.09	0.090	0.09
lindane	0.0002	mg/L	0.009				0.009	0.009	0.009
Methoxychlor	0.03	mg/L	0.009				0.009	0.009	0.009
Molinate	0.02	mg/L	0.09				0.09	0.09	0.09
Oxamyl	0.05	mg/L					0	#DIV/0!	0
Pentachlorophenol	0.001	mg/L	0.19				0.19	0.19	0.19
Picloram	0.5	mg/L	0.59				0.59	0.59	0.59
Polychlorinated Biphenyls	0.0005	mg/L	1.9				1.9	1.9	1.9
Simazine	0.004	mg/L	0.09				0.09	0.09	0.09
Thiobencarb	0.07	mg/L	0.09				0.09	0.09	0.09
Toxaphene	0.003	mg/L	4.9				4.9	4.9	4.9
2,3,7,8-TCDD (Dioxin)	3x10-a	mg/L	2.26				2.26	2.26	2.26
2,4,5-TP (Silvex)	0.05	mg/L	0.19				0.19	0.19	0.19
A4 - Disinfection Byproducts									
Total Trihalomethanes (TTHM)	0.08	ppb	29				29	29	29
Bromodichloromethane		ug/l	7.1				7.1	7.10000	7.1
Bromoform		ug/l	0.49				0.49	0.49	0.49
Chloroform		ug/l	21				21	21	21
Dibromochloromethane		ug/l	1.3				1.3	1.30	1.3
Haloacetic acid (five) (HAA5)	0.06	ppb	18				18	18.00	18
Monochloroacetic acid		ppb	2.2				2.2	2.20	2.2
Dichloroacetic acid		ppb	10				10	10.00	10
Trichloroacetic acid		ppb	5.4				5.4	5.40	5.4
Monobromoacetic acid		ppb	0.9				0.9	0.90	0.9
Dibromoacetic acid		ppb					0	#DIV/0!	0
Bromate 121	0.01	ppb	9.9				9.9	9.90	9.9
Chlorite 131	1	ppb	36.4				36.4	36.40	36.4
A5 - Secondary MCLs									
Aluminum	0.2	mg/L	25.8				25.8	25.800000	25.8
Color	150	CU	18.8				18.8	18.80	18.8
Copper	1	mg/L	0.6				0.6	0.600000	0.6
Corrosivity (Langelier Index)	Non		0.14				0.14	0.14	0.14
Foam Agents (MBAS)	0.5	mg/L	0.06				0.06	0.060000	0.06
Iron	0.3	mg/L	0.04				0.04	0.04	0.04
Manganese	0.05	mg/L	57				57	57.0000000	57
Methyl-tert-butyl-ether (MTBE)	0.005	mg/L	1.9				1.9	1.9	1.9
Odor - Threshold	3	T.O.N.	0.9				0.9	0.900000	0.9
Silver	0.1	mg/L	0.19				0.19	0.19	0.19
Thiobencarb	0.001	mg/L	0.09				0.09	0.09	0.09
Zinc	5	mg/L	24				24	24.000000	24

2023_mcc_data

Date	Day	Gallons	Location	Description	Reason for Haul	Destination	Hauler
02/08/2023	Wed	15,000	Solids Storage Tank	Waste Activated Sludge	Biological Process Control	JWPCP	Ely Jr's Pumping & Septic Systems
02/09/2023	Thu	5,000	Solids Storage Tank	Waste Activated Sludge	Biological Process Control	JWPCP	Ely Jr's Pumping & Septic Systems
03/03/2023	Fri	5,000	Solids Storage Tank	Waste Activated Sludge	Biological Process Control	JWPCP	Ely Jr's Pumping & Septic Systems
03/03/2023	Fri	5,000	Solids Storage Tank	Waste Activated Sludge	Biological Process Control	JWPCP	Pacific Sanitation Inc.
03/20/2023	Mon	2,500	Solids Storage Tank	Waste Activated Sludge	Biological Process Control	JWPCP	Ely Jr's Pumping & Septic Systems
03/20/2023	Mon	2,500	Solids Storage Tank	Waste Activated Sludge	Biological Process Control	JWPCP	Ely Jr's Pumping & Septic Systems
03/22/2023	Wed	15,000	Solids Storage Tank	Waste Activated Sludge	Biological Process Control	JWPCP	Ely Jr's Pumping & Septic Systems
Total		**50,000**					

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Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 09-Jan-23 08:35
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22L0958-01) Collected: 31-Dec-22 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL23104	1.8	31-Dec-22	02-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL23104	1.8	31-Dec-22	02-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA30326	0.1	31-Dec-22	31-Dec-22	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA30511	0.05	05-Jan-23	05-Jan-23	**0.08 mg/l**	
EFF (Sample I.D.# : 23A0003-01) Collected: 01-Jan-23 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA30103	1.8	01-Jan-23	03-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA30103	1.8	01-Jan-23	03-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA30326	0.1	01-Jan-23	01-Jan-23	**7.8 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA30511	0.05	05-Jan-23	05-Jan-23	**0.07 mg/l**	
EFF (Sample I.D.# : 23A0024-01) Collected: 02-Jan-23 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA30216	1.8	02-Jan-23	05-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA30216	1.8	02-Jan-23	05-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA30326	0.1	03-Jan-23	04-Jan-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA30511	0.05	05-Jan-23	05-Jan-23	**0.06 mg/l**	
EFF (Sample I.D.# : 23A0056-01) Collected: 03-Jan-23 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA30327	1.8	03-Jan-23	05-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA30327	1.8	03-Jan-23	05-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA30426	0.1	03-Jan-23	03-Jan-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA30511	0.05	05-Jan-23	05-Jan-23	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 1/9/2023
Lab Director

PAT-CHEM
LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 09-Jan-23 08:35
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0092-01) Collected: 04-Jan-23 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA30423	1.8	04-Jan-23	06-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA30423	1.8	04-Jan-23	06-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA30610	0.1	04-Jan-23	04-Jan-23	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA30511	0.05	05-Jan-23	05-Jan-23	**0.12 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,

Stephen Sakai 1/9/2023
Lab Director

[redacted]ories
[redacted]24 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 22L0958

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Jesus Avalos
		Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	12/31/22	11:50	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.67
1	1	1	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	12/31/22	11:55
Received by:	Richard M. (PCL)	12/31/22	1230
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard M. (PCL)	12/31/22	1355

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC? (Yes) No

Samples intact? (Yes) No

Samples properly preserved? (Yes) No

Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0203

Customer: IPC - Integrated Performance Consultants, Inc.		Project : **(MCC) Daily EFF**	
Address: 9297 Research Drive		Sampled by:	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: **Field** **Lab**
EFF	1/1/23	915	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.76@25
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 01 2023

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. Morrison	1/1/23	920
Received by	Alex Walkuski	1/1/23	12:05
Relinquished by			
Received by			
Relinquished by			
Received for Lab by	Alex Walkuski JAN 01 2023		1500

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0024

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Daniel Huey Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/2/23	1125	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.58/20.5c
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 02 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Daniel (IPC)	1/2/23	1125
Received by		Edwin Gonzalez	1/2/23	12:45
Relinquished by		Edwin Gonzalez	1/2/23	13:50
Received by				
Relinquished by				
Received in lab by		Alex Valdez Jr	1/2/23	1350

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water SO - Soil / Sludge OT - Other	HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	AI - $AlCl_3$ Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0056

Customer: IPC - Integrated Performance Consultants, Inc.		Project : **(MCC) Daily EFF**	
Address: 9297 Research Drive		Sampled by: Daniel Huey	P.O. #:
Irvine CA 92618		Report Attention: ~~Ric Vardel / Golan Kfir~~	Phone #: ~~949-382-9067~~

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / ~~Temperature~~) pH: Field / Lab
EFF	1/3/23	1110	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.61 / 21.3c
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 03 2023

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel Huey	Daniel (IPC)	1/3/23	1155
~~Received by~~		Juan Devis IPCI	1/3/23	13:43
Relinquished by		Juan Devis IPCI	1/3/23	16:37
Received by				
Relinquished by				
Received in lab by		Alex Wachsman JAN 03 2023		1637

Sample Received Checklist

Temperature upon receipt:	4°C	
# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0092

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC) Daily EFF**
Address:	9297 Research Drive Irvine CA 92618	Sampled by: Daniel Huey Report Attention: ~~Rid Vardel / Golan Kfir~~	P.O. #: Phone #: ~~949-382-9067~~

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: **Field** / **Lab**
EFF	1/4/23	1125	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.68/21.1c
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 04 2023
By Alex Ikhlas Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Huey	Daniel (IPC)	1/4/23	1210
Received by:	Richard M. (PCL)	1/4/23	~~1410~~ 1350
Relinquished by:	Richard M. (PCL)	1/4/23	1500
Received by:			
Relinquished by:			
Received in lab by: Alex Ikhlas Jr.	Alex Ikhlas JAN	04 2023	1540

Sample Received Checklist y c

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab **Comp**	**HC** - HCl **HS** - H_2SO_4 **HN** - HNO_3 **HP** - H_3PO_4 **OH** - NaOH **ST** - Sodium Thiosulfate **AA** - Ascorbic Acid **Al** - $AlCl_3$ **Cu** - $CuSO_4$
Matrix **AQ** - Water **SO** - Soil / Sludge **OT** - Other	
Bottle Type **P** - Plastic **G** - Amber Glass **VOA** - 40 ml Vial **Coli** - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 16-Jan-23 15:44
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0125-01) Collected: 05-Jan-23 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA30510	1.8	05-Jan-23	07-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA30510	1.8	05-Jan-23	07-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA30610	0.1	06-Jan-23	06-Jan-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA31033	0.05	10-Jan-23	10-Jan-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23A0172-01) Collected: 06-Jan-23 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA30612	1.8	06-Jan-23	08-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA30612	1.8	06-Jan-23	08-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA30929	0.1	06-Jan-23	06-Jan-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA31033	0.05	10-Jan-23	10-Jan-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23A0243-01) Collected: 07-Jan-23 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA30719	1.8	07-Jan-23	09-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA30719	1.8	07-Jan-23	09-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA30929	0.1	07-Jan-23	07-Jan-23	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA31033	0.05	10-Jan-23	10-Jan-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23A0260-01) Collected: 08-Jan-23 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA30811	1.8	08-Jan-23	10-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA30811	1.8	08-Jan-23	10-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA30929	0.1	08-Jan-23	08-Jan-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA31033	0.05	10-Jan-23	10-Jan-23	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 1/16/2023
Lab Director

PAT-CHEM
LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 16-Jan-23 15:44
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0289-01) Collected: 09-Jan-23 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA30931	1.8	09-Jan-23	12-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA30931	1.8	09-Jan-23	12-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA31307	0.1	09-Jan-23	09-Jan-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA31033	0.05	10-Jan-23	10-Jan-23	**0.08 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 1/16/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0061125

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by: Daniel Huey Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/5/23	1150	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.53/2c
4	4	4	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 05 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Huey	Daniel (IPC)	1/5/23	1215
Received by:	Juan D (PCC)	1/5/23	13:03
Relinquished by:	Juan D (PCC)	1/5/23	15:55
Received by:			
Relinquished by:			
Received in lab by:	Alex Walker JAN 05 2023		1558

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water SO - Soil / Sludge OT - Other	HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	Al - $AlCl_3$ Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0172

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by: Jonathan Wu Report Attention: ~~Ric Vardel / Golan Kfir~~	P.O. #: Phone #: ~~949-382-9067~~

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: (Field) Lab
EFF	1/6/23	11:33	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.44 / 18.7°C
↓	↓	↓	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	↓

RECEIVED
JAN 06 2023
BY

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	1/6/23	11:43
Received by	Richard M. (PCL)	1/6/23	1400
Relinquished by	Richard M. (PCL)	1/6/23	1558
Received by			
Relinquished by			
Received in lab by	Alex Walmsley JAN 06 2023		1558

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid Al - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0243

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Jesus Avalos	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	01/07/23	11:50	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.68/20.5°
〃	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	01/07/23	11:55
Received by:	Richard M. (PCL)	1/7/23	11:5[illegible]
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard M. (PCL)	1/7/23	1510

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? (Yes) No
Samples intact? (Yes) No
Samples properly preserved? (Yes) No
Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0260

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Eric
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1-8-23	930	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.65 @ 20.9
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 08 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	ERIC MORRIS	1-8-23	0945
Received by	Cindy Martinez	1-8-23	1pm
Relinquished by	Cindy Martinez	1-8-23	13:00
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr. JAN 08 2023		1300

Sample Received Checklist

Temperature upon receipt: 4° C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid AI - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0289

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Jonathan Wu Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/9/23	11:05	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.61 / 19.6°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 09 2023
By Alex Wah Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	1/9/23	11:17
Received by	Richard M. (PCL)	1/9/23	1530
Relinquished by	Richard M. (PCL)	1/9/23	1645
Received by			
Relinquished by			
Received in lab by	Alex Wah Jr.	JAN 09 2023	1645

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water SO - Soil / Sludge OT - Other	HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	Al - $AlCl_3$ Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 24-Jan-23 12:00
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0334-01) Collected: 10-Jan-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA31127	1.8	11-Jan-23	13-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA31127	1.8	11-Jan-23	13-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA31307	0.1	10-Jan-23	10-Jan-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA31729	0.05	17-Jan-23	24-Jan-23	**0.14 mg/l**	
EFF (Sample I.D.# : 23A0362-01) Collected: 11-Jan-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA31127	1.8	11-Jan-23	13-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA31127	1.8	11-Jan-23	13-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA31307	0.1	11-Jan-23	11-Jan-23	**7.8 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA31729	0.05	17-Jan-23	24-Jan-23	**0.05 mg/l**	
EFF (Sample I.D.# : 23A0400-01) Collected: 12-Jan-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA31208	1.8	12-Jan-23	14-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA31208	1.8	12-Jan-23	14-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA31307	0.1	13-Jan-23	13-Jan-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA31729	0.05	17-Jan-23	24-Jan-23	**0.05 mg/l**	
EFF (Sample I.D.# : 23A0421-01) Collected: 13-Jan-23 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA31314	1.8	13-Jan-23	15-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA31314	1.8	13-Jan-23	15-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA31916	0.1	13-Jan-23	13-Jan-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA31729	0.05	17-Jan-23	24-Jan-23	**0.08 mg/l**	

Respectfully Submitted,



Stephen Sakai 1/24/2023
Lab Director

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 24-Jan-23 12:00
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0455-01) Collected: 14-Jan-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AA31414	1.8	14-Jan-23	17-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA31414	1.8	14-Jan-23	17-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA31916	0.1	14-Jan-23	14-Jan-23	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA31729	0.05	17-Jan-23	24-Jan-23	**0.10 mg/l**	
EFF (Sample I.D.# : 23A0464-01) Collected: 15-Jan-23 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA31521	1.8	15-Jan-23	17-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA31521	1.8	15-Jan-23	17-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA31916	0.1	15-Jan-23	15-Jan-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA31729	0.05	17-Jan-23	24-Jan-23	**0.08 mg/l**	
EFF (Sample I.D.# : 23A0512-01) Collected: 16-Jan-23 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA31626	1.8	16-Jan-23	18-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA31626	1.8	16-Jan-23	18-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA31916	0.1	16-Jan-23	16-Jan-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA31729	0.05	17-Jan-23	24-Jan-23	**0.14 mg/l**	
EFF (Sample I.D.# : 23A0562-01) Collected: 17-Jan-23 By KV of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA31724	1.8	17-Jan-23	20-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA31724	1.8	17-Jan-23	20-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA31916	0.1	17-Jan-23	17-Jan-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA32438	0.05	24-Jan-23	24-Jan-23	**0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 1/24/2023
Lab Director

PAT-CHEM
LABORATORIES

QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 24-Jan-23 12:00
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,

Stephen Sakai 1/24/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0334

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Ervin Tucker Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/10/23	10:45am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	
	1/10/23	10:45am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 10 2023
By Alex Walker Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by: Ervin Tucker	Ervin Tucker (IPC)	1/10/23	10:53am
Received by: Mario Santesteban	MARIO SANTIESTEBAN (PCL)	1/10/23	1400
Relinquished by: Mario	MARIO SANTIESTEBAN (PCL)	1/10/23	1630
Received by			
Relinquished by			
Received in lab by: Alex Walker Jr.	Alex Walker Jr	JAN 10 2023	1630

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0362

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC) Daily EFF**
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/11/23	12:22	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.75 / 20.3°
	1/11/23	12:22	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 11 2023
By

	Signature	Print Name (Company)	Date	Time
Relinquished by		Ervin Tucker	1/11/23	1:00 pm
Received by		MARIO SANTIESTEBAN (PCL)	1/11/23	1353
Relinquished by		MARIO SANTIESTEBAN (PCL)	1/11/23	1530
Received by				
Relinquished by				
Received in lab by		Alex Walinski JAN	11 2023	1530

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0400

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	ERVIN TUCKER
		Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/12/23	11:00am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.57 / 20.8c
	1/12/23	11:00am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 12 2023
By Alex Wall Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by:	ERVIN TUCKER	1/12/23	11:22am
Received by:	MARIO SANTIESTEBAN (PCL)	1/12/23	1320
Relinquished by:	MARIO SANTIESTEBAN (PCL)	1/12/23	1500
Received by:			
Relinquished by:			
Received in lab by:	Alex Wall Jr. JAN 12 2023		1500

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0421

Customer: IPC - Integrated Performance Consultants, Inc.		Project: (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Mario Aguirre Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/13/23	10:53	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.52 / 20.9
〃	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 13 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	1/13/23	11:18
Received by	Richard M. (PCL)	1/13/23	1355
Relinquished by	Richard M. (PCL)	1/13/23	1610
Received by			
Relinquished by			
Received in lab by	Alex Walton Jr. JAN	13 2023	1610

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0455

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Mario Aguirre	P.O. #:
Irvine	CA 92618	Report Attention: Eric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	11/14/23	10:56	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.68 / 20.4
11	11	11	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

	Signature	Print Name (Company)	Date	Time
Relinquished by		Mario Aguirre (IPC)	11/14/23	11:07
Received by		Richard M. (PCL)	11/14/23	1540
Relinquished by				
Received by				
Relinquished by				
Received in lab by		Richard M. (PCL)	11/14/23	1540

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	(Yes)	No
Samples intact?	(Yes)	No
Samples properly preserved?	(Yes)	No
Samples in holding time?	(Yes)	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab **Comp**	**HC** - HCl **HS** - H_2SO_4
Matrix **AQ** - Water **SO** -Soil / Sludge **OT** - Other	**HN** - HNO_3 **HP** - H_3PO_4 **OH** - NaOH **ST** - Sodium Thiosulfate
Bottle Type **P** - Plastic **G** - Amber Glass **VOA** - 40 ml Vial **Coli** - bacteria	**AA** - Ascorbic Acid **Al** - $AlCl_3$ **Cu** -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0464

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Ric Vardel / Golan Kfir
		Report Attention:	
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1-15-23	1025	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	1.75@20.1
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 15 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	E. Morris	1-15-23	10:55
Received by	Alex Walker Jr (PCL)	1-15-23	10:55
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr JAN 15 2023		1420

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0512

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Mario Aguirre
		Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field / Lab
EFF	1/16/23	10:50	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.61 / 19.6
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 16 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	1/16/23	11:23
Received by	MARIO SANTIESTEBAN (PCL)	1/16/23	1245
Relinquished by	MARIO SANTIESTEBAN (PCL)	1/16/23	1415
Received by			
Relinquished by			
Received in lab by	Alex Walhstrom JAN	16 2023	1415

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Matrix	Bottle Type
Grab	AQ - Water	P - Plastic
Comp	SO - Soil / Sludge	G - Amber Glass
	OT - Other	VOA - 40 ml Vial
		Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0562

Customer: IPC - Integrated Performance Consultants, Inc.		Project: **(MCC) Daily EFF**	
Address: 9297 Research Drive		Sampled by: Kyle Vardel	P.O. #:
Irvine . CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/17/23	1050	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	pH 7.53 / 19.8c
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 17 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Kyle Vardel (IPC)	1/17/23	1400
Received by		Edwin Gonzalez	1/17/23	2:32
Relinquished by		Edwin Gonzalez	1/17/23	14:40
Received by				
Relinquished by				
Received in lab by		Alex Nelson JAN 17 2023		14:40

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 28-Jan-23 12:17
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0620-01) Collected: 18-Jan-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA31827	1.8	18-Jan-23	20-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA31827	1.8	18-Jan-23	20-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA31916	0.1	18-Jan-23	18-Jan-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA32438	0.05	24-Jan-23	24-Jan-23	**0.06 mg/l**	
EFF (Sample I.D.# : 23A0652-01) Collected: 19-Jan-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA31912	1.8	19-Jan-23	21-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA31912	1.8	19-Jan-23	21-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA32535	0.1	19-Jan-23	19-Jan-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA32438	0.05	24-Jan-23	24-Jan-23	**0.09 mg/l**	
EFF (Sample I.D.# : 23A0697-01) Collected: 20-Jan-23 By KV of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA32015	1.8	20-Jan-23	22-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA32015	1.8	20-Jan-23	22-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA32535	0.1	20-Jan-23	20-Jan-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA32438	0.05	24-Jan-23	24-Jan-23	**0.08 mg/l**	
EFF (Sample I.D.# : 23A0738-01) Collected: 21-Jan-23 By KV of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA32118	1.8	21-Jan-23	23-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA32118	1.8	21-Jan-23	23-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA32535	0.1	21-Jan-23	21-Jan-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA32438	0.05	24-Jan-23	24-Jan-23	**0.10 mg/l**	

Respectfully Submitted,



Stephen Sakai 1/28/2023
Lab Director

PAT-CHEM
LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 28-Jan-23 12:17
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0775-01) Collected: 22-Jan-23 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA32209	1.8	22-Jan-23	24-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA32209	1.8	22-Jan-23	24-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA32535	0.1	22-Jan-23	22-Jan-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA32438	0.05	24-Jan-23	24-Jan-23	**0.09 mg/l**	
EFF (Sample I.D.# : 23A0831-01) Collected: 23-Jan-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA32331	1.8	23-Jan-23	26-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA32331	1.8	23-Jan-23	26-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA32535	0.1	23-Jan-23	23-Jan-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA32438	0.05	24-Jan-23	24-Jan-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23A0860-01) Collected: 24-Jan-23 By CA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA32447	1.8	24-Jan-23	26-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA32447	1.8	24-Jan-23	26-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA32535	0.1	25-Jan-23	27-Jan-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA32621	0.05	26-Jan-23	26-Jan-23	**0.09 mg/l**	

Respectfully Submitted,

Stephen Sakai 1/28/2023
Lab Director

PAT-CHEM
LABORATORIES

QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 28-Jan-23 12:17
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 1/28/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0620

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine, CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/18/23	10:52am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.53 / 19.3°C
EFF	1/18/23	10:52am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 18 2023
By

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Ervin Tucker	1/18/23	11:25am
Received by		Mario Santiesteban (PCL)	1/18/23	1300
Relinquished by		Mario Santiesteban (PCL)	1/18/23	1620
Received by				
Relinquished by				
Received in lab by		Alex Warren JAN 18 2023		1620

Sample Received Checklist

Temperature upon receipt:	4°C
# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO -Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	Al - $AlCl_3$
G - Amber Glass	Cu -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0652

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/19/23	11:38am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.42/20.0°
EFF	1/19/23	11:40am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 19 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Ervin Tucker	1/19/23	1:53pm
Received by		MARIO SANTIESTEBAN (PCL)	1/19/23	1335
Relinquished by		MARIO SANTIESTEBAN (PCL)	1/19/23	1525
Received by				
Relinquished by				
Received in lab by		Alex Walton JAN 19 2023		1525

Sample Received Checklist 4°C

Temperature upon receipt:	
# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO -Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	Al - $AlCl_3$
G - Amber Glass	Cu -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0697

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Kyle Vardel
	Irvine . CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/12/23	1100	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.51pH/19.9C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

RECEIVED
JAN 20 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Kyle Vardel (IPC)	1/20/23	1110
Received by	MARIO SANTIESTEBAN (PCL)	1/20/23	1250
Relinquished by	MARIO SANTIESTEBAN (PCL)	1/20/23	1650
Received by			
Relinquished by			
Received in lab by	Alex Walker	JAN 20 2023	1550

Sample Received Checklist

Temperature upon receipt: 4 °C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0738

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jonathan Wu
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/21/23	10:53	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.61 | 19.4°C
		10:53	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	1/21/23	1200
Received by	Richard M. (PCL)	1/21/23	1200
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Richard M (PCL)	1/21/23	1546

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC? (Yes) No

Samples intact? (Yes) No

Samples properly preserved? (Yes) No

Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO - Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	Al - $AlCl_3$
G - Amber Glass	Cu - $CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0775

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	P.O. #:
	Irvine CA 92618	Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/22/23	955	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.42 @ 20.2
	1/22/23		1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED JAN 22 2023

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	1-22-23	1010
Received by	Alex Walton Jr	1-22-23	1430
Relinquished by			
Received by			
Relinquished by			
Received by	Alex Walton JAN	22 2023	1630

Sample Received Checklist

Temperature upon receipt: 4° C

# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0831

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/23/23	10:48am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.49 / 20.6°C
EFF	1/23/23	10:48am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 23 2023
BY

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	1/23/23	11:03am
Received by	MARIO SANTIESTEBAN (PCL)	1/23/23	1340
Relinquished by	MARIO SANTIESTEBAN (PCL)	1/23/23	1553
Received by			
Relinquished by			
Received for lab by	Alex Walker JR	JAN 23 2023	1555

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	(Yes) No
Samples intact?	(Yes) No
Samples properly preserved?	(Yes) No
Samples in holding time?	(Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0860

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Carlos Alvarez
	Irvine . CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	01/24/23	1145	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.61 19.2
1	1	1	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	1

RECEIVED
JAN 24 2023

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	01/24/23	1210
Received by		Juan D. (PCL)	01/24/23	1406
Relinquished by		Juan D. (PCL)	1/24/23	1600
Received by				
Relinquished by				
Received in lab by		Alex Wang JAN 24 2023		1600

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	(Yes) No
Samples intact?	(Yes) No
Samples properly preserved?	(Yes) No
Samples in holding time?	(Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 04-Feb-23 11:24
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0903-01) Collected: 25-Jan-23 By CA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA32549	1.8	25-Jan-23	27-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA32549	1.8	25-Jan-23	27-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30214	0.1	25-Jan-23	25-Jan-23	**7.8 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA32621	0.05	26-Jan-23	26-Jan-23	**0.12 mg/l**	
EFF (Sample I.D.# : 23A0936-01) Collected: 26-Jan-23 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA32619	1.8	26-Jan-23	28-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA32619	1.8	26-Jan-23	28-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30214	0.1	26-Jan-23	26-Jan-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA32621	0.05	26-Jan-23	26-Jan-23	**0.15 mg/l**	
EFF (Sample I.D.# : 23A0987-01) Collected: 27-Jan-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA32713	1.8	27-Jan-23	29-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA32713	1.8	27-Jan-23	29-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30214	0.1	27-Jan-23	27-Jan-23	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA33036	0.05	30-Jan-23	31-Jan-23	**0.11 mg/l**	
EFF (Sample I.D.# : 23A1024-01) Collected: 28-Jan-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA32824	1.8	28-Jan-23	30-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA32824	1.8	28-Jan-23	30-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30214	0.1	28-Jan-23	28-Jan-23	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA33036	0.05	30-Jan-23	31-Jan-23	**0.06 mg/l**	

Respectfully Submitted,

Stephen Sakai 2/4/2023
Lab Director

PAT-CHEM
LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 04-Feb-23 11:24
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A1042-01) Collected: 29-Jan-23 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA32918	1.8	29-Jan-23	31-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA32918	1.8	29-Jan-23	31-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30214	0.1	29-Jan-23	29-Jan-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AA33036	0.05	30-Jan-23	31-Jan-23	**0.06 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,

Stephen Sakai 2/4/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0903

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Carlos Alvarez
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		Phone #:	949-382-9067
		P.O. #:	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	01/25/23	1140	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.80 18.9°
1	1	1	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	1

RECEIVED
JAN 25 2023

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	01/25/23	1155
Received by		Richard M. (PCL)	1/25/23	1450
Relinquished by		Richard M. (PCL)	1/25/23	1620
Received by				
Relinquished by				
Received in lab by		Alex Walsh JAN 25 2023		1620

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO -Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	Al - $AlCl_3$
G - Amber Glass	Cu -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0936

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jonathan Wu
	Irvine . CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: (Field) Lab
EFF	1/26/23	10:45	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.60 / 20.7C°
↓	↓	↓	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	↓
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 26 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	1/26/23	11:02
Received by	Juan D. (PCL)	1/26/23	1155
Relinquished by	Juan D. (PCL)	1/26/23	1419
Received by			
Relinquished by			
Received in lab by	Alex Walton Jr JAN 26 2023		1419

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0987

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/27/23	10:51am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.66/20.7°C
EFF	1/27/23	10:51am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 27 2023
By

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Ervin Tucker (IPC)	1/27/23	11:24am
Received by		Juan D. (IPC)	1/27/23	1136
Relinquished by		Juan D. (IPC)	1/27/23	1418
Received by				
Relinquished by				
Received in lab by		Alex Warren JAN 27 2023		1418

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO - Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A1024

Customer: IPC - Integrated Performance Consultants, Inc.		Project: (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Jesus Andes	P.O. #:
Irvine, CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	11/28/23	11:50	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.73 19.7°C
〃	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Andes	Jesus Andes (IPC)	11/28/23	11:55
Received by:	Richard M. (PCL)	11/28/23	1200
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard M. (PCL)	11/28/23	1540

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC? (Yes) No

Samples intact? (Yes) No

Samples properly preserved? (Yes) No

Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A1042

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	P.O. #:
	Irvine CA 92618	Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1-29-23	900	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.64
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

RECEIVED
JAN 29 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	1-29-23	940
Received by	Alex Walker Jr	1-29-23	10:00
Relinquished by			
Received by			
Relinquished by			
Received in lab by	JAN 29 2023		1345

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? (Yes) No
Samples intact? (Yes) No
Samples properly preserved? (Yes) No
Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO -Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	Al - $AlCl_3$
G - Amber Glass	Cu -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 08-Feb-23 10:26
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A1063-01) Collected: 30-Jan-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA33028	1.8	30-Jan-23	01-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA33028	1.8	30-Jan-23	01-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30214	0.1	30-Jan-23	30-Jan-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB30631	0.05	06-Feb-23	06-Feb-23	**0.07 mg/l**	
EFF (Sample I.D.# : 23A1113-01) Collected: 31-Jan-23 By C.A. of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AA33123	1.8	31-Jan-23	03-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AA33123	1.8	31-Jan-23	03-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30214	0.1	31-Jan-23	31-Jan-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB30631	0.05	06-Feb-23	06-Feb-23	**0.08 mg/l**	
EFF (Sample I.D.# : 23B0060-01) Collected: 01-Feb-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB30123	1.8	01-Feb-23	03-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB30123	1.8	01-Feb-23	03-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30214	0.1	01-Feb-23	01-Feb-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB30631	0.05	06-Feb-23	06-Feb-23	**0.08 mg/l**	
EFF (Sample I.D.# : 23B0087-01) Collected: 02-Feb-23 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB30225	1.8	02-Feb-23	04-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB30225	1.8	02-Feb-23	04-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30630	0.1	06-Feb-23	07-Feb-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB30631	0.05	06-Feb-23	06-Feb-23	**0.08 mg/l**	

Respectfully Submitted,

Stephen Sakai 2/8/2023
Lab Director

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 08-Feb-23 10:26
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0116-01) Collected: 03-Feb-23 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB30319	1.8	03-Feb-23	05-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB30319	1.8	03-Feb-23	05-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30630	0.1	03-Feb-23	03-Feb-23	**7.3 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB30631	0.05	06-Feb-23	06-Feb-23	**0.08 mg/l**	
EFF (Sample I.D.# : 23B0151-01) Collected: 04-Feb-23 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB30417	1.8	04-Feb-23	06-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB30417	1.8	04-Feb-23	06-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30630	0.1	04-Feb-23	04-Feb-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB30631	0.05	06-Feb-23	06-Feb-23	**0.17 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 2/8/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A1063

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
P.O. #:		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/30/23	10:47am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.58 / 20.1°C
EFF	1/30/23	10:49am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

RECEIVED
JAN 30 2023
By

	Signature	Print Name (Company)	Date	Time
Relinquished by		Ervin Tucker (IPC)	1/30/23	11:10am
Received by		Edwin Gonzalez	1/30/23	13:00
Relinquished by		Edwin Gonzalez	1/30/23	15:00
Received by				
Relinquished by				
Received at Lab by		Alex Lamera JAN 30 2023		1500

Sample Received Checklist

Temperature upon receipt: 4 °C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A1113

Customer: IPC - Integrated Performance Consultants, Inc.		Project: (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Carlos Alvarez	P.O. #:
Irvine . CA 92618		Report Attention: . Ric Vardel / Golan Kfir	Phone #: . 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	01/31/23	1140	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.52 / 18.6°C
1	1	1	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
JAN 31 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (CAC)	01/31/23	1200
Received by		Edwin Gonzalez	01/31/23	13:30
Relinquished by		Edwin Gonzalez	01/31/23	15:00
Received by				
Relinquished by				
Received in lab by		Alex Warner JAN	31 2023	1500

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO - Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0060

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/1/23	10:38am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.43 / 20.1°C
EFF	2/1/23	10:38am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
FEB 01 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by:	Ervin Tucker (IPC)	2/1/23	11:05am
Received by	Edwin Gonzalez	2/1/23	12:50
Relinquished by	Edwin Gonzalez	2/1/23	14:10
Received by			
Relinquished by			
Received in lab by	Alex Walker	FEB 01 2023	1440

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO - Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0087

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jonathan Wu
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: (Field) Lab
EFF	2/2/23	10:40	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.42 / 14.3°C
EFF	↓	↓	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	↓
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 02 2023
By Alex Wallace Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu	2/2/23	10:45
Received by	Juan Perez (IPC)	2/2/23	13:13
Relinquished by			
Received by			
Relinquished by			
Received for lab by	Alex Wallace Jr.	FEB 02 2023	1600

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	(Yes) No
Samples intact?	(Yes) No
Samples properly preserved?	(Yes) No
Samples in holding time?	~~Yes~~ No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0116

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Marie Aguirre
	Irvine . CA 92618	Report Attention:	Rio Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field / Lab
EFF	2/3/23	10:43	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.44 / 20.3
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
FEB 03 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Marie Aguirre (IPC)	2/3/23	11:03
Received by		Jason R. (IPCL)	2/3/23	1205
Relinquished by		Jason R. (IPCL)	2/3/23	1345
Received by				
Relinquished by				
Received (lab) by		Alex Kaiser FEB 03 2023		1345

Sample Received Checklist

Temperature upon receipt: 4 °C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO -Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	Al - $AlCl_3$
G - Amber Glass	Cu -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0151

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jesus Avalos
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/4/23	11:50	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.62 20.4°
〃	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	2/4/23	11:55
Received by:	Richard M. VIO	2/4/23	1240
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard M. (PW)	2/4/23	1350

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? (Yes) No
Samples intact? (Yes) No
Samples properly preserved? (Yes) No
Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO - Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	Al - $AlCl_3$
G - Amber Glass	Cu - $CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 19-Feb-23 15:09
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0163-01) Collected: 05-Feb-23 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB30623	1.8	06-Feb-23	08-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB30623	1.8	06-Feb-23	08-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30630	0.1	05-Feb-23	05-Feb-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB30631	0.05	06-Feb-23	06-Feb-23	**0.44 mg/l**	
EFF (Sample I.D.# : 23B0192-01) Collected: 06-Feb-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB30623	1.8	06-Feb-23	08-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB30623	1.8	06-Feb-23	08-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30919	0.1	06-Feb-23	06-Feb-23	**7.1 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB30836	0.05	08-Feb-23	08-Feb-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23B0237-01) Collected: 07-Feb-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB30723	1.8	07-Feb-23	09-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB30723	1.8	07-Feb-23	09-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30919	0.1	07-Feb-23	07-Feb-23	**6.9 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB30836	0.05	08-Feb-23	08-Feb-23	**0.10 mg/l**	
EFF (Sample I.D.# : 23B0294-01) Collected: 08-Feb-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB30828	1.8	08-Feb-23	10-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB30828	1.8	08-Feb-23	10-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB30919	0.1	08-Feb-23	08-Feb-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB30836	0.05	08-Feb-23	08-Feb-23	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 2/19/2023
Lab Director

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 19-Feb-23 15:09
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0330-01) Collected: 09-Feb-23 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB30914	1.8	09-Feb-23	12-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB30914	1.8	09-Feb-23	12-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB31328	0.1	13-Feb-23	16-Feb-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB31530	0.05	15-Feb-23	15-Feb-23	**0.08 mg/l**	
EFF (Sample I.D.# : 23B0374-01) Collected: 10-Feb-23 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB31012	1.8	10-Feb-23	12-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB31012	1.8	10-Feb-23	12-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB31328	0.1	13-Feb-23	16-Feb-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB31530	0.05	15-Feb-23	15-Feb-23	**0.07 mg/l**	
EFF (Sample I.D.# : 23B0393-01) Collected: 11-Feb-23 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB31124	1.8	11-Feb-23	13-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB31124	1.8	11-Feb-23	13-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB31328	0.1	13-Feb-23	16-Feb-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB31530	0.05	15-Feb-23	15-Feb-23	**0.05 mg/l**	
EFF (Sample I.D.# : 23B0400-01) Collected: 12-Feb-23 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB31220	1.8	12-Feb-23	14-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB31220	1.8	12-Feb-23	14-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB31328	0.1	13-Feb-23	16-Feb-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB31530	0.05	15-Feb-23	15-Feb-23	**0.06 mg/l**	

Respectfully Submitted,

Stephen Sakai 2/19/2023
Lab Director

PAT-CHEM
LABORATORIES

QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 19-Feb-23 15:09
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,

Stephen Sakai 2/19/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0163

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Eric Morris	P.O. #:
Irvine	CA 92618	Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/5/23	910	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.61 @ 20.9
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 05 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	2/5/23	925
Received by	Alex Walton	2/5/23	14:50
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Alex Walton	2/5/23	16:00

Sample Received Checklist

Temperature upon receipt: 4° C

# of bottles agrees with COC? (Yes) No

Samples intact? (Yes) No

Samples properly preserved? (Yes) No

Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0192

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/6/23	11:15am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.37 / 21.4°C
EFF	2/6/23	11:15am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 06 2023

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	2/6/23	11:34am
Received by	Mario Santiesteban (RL)	2/6/23	1450
Relinquished by	Mario Santiesteban (PCL)	2/6/23	1735
Received by			
Relinquished by			
Received in lab by	Alex Walker	FEB 06 2023	1735

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO - Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	Al - $AlCl_3$
G - Amber Glass	Cu - $CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0237

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	ERVIN TUCKER
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/7/23	11:11am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.42/21.4°C
EFF	2/7/23	11:11am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
FEB 07 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		ERVIN TUCKER (IPC)	2/7/23	11:57am
Received by		MARIO SANTIESTEBAN (PCL)	2/7/23	1340
Relinquished by		MARIO SANTIESTEBAN (PCL)	2/7/23	1630
Received by				
Relinquished by				
Received in lab by		Alex Walker FEB 07 2023		1630

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO - Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	Al - $AlCl_3$
G - Amber Glass	Cu - $CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0294

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/8/23	11:20am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.54/21.7
EFF	2/8/23	11:20am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
FEB 08 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Ervin Tucker (IPC)	2/8/23	11:48am
Received by		MARIO SANTIESTEBAN (PCL)	2/8/23	1305
Relinquished by		MARIO SANTIESTEBAN (PCL)	2/8/23	1610
Received by				
Relinquished by				
Received in lab by		Alex Walker Jr.	FEB 08 2023	1610

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0330

Customer: IPC - Integrated Performance Consultants, Inc.		Project: (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Jonathan Wu	P.O. #:
Irvine	CA 92618	Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/09/23	11:10	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.45 / 21.6 C°
EFF	↓	↓	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	↓
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 09 2023
By Alex Walker Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	2/09/23	11:15
Received by	MARIO SANTIESTEBAN (PCL)	2/9/23	1245
Relinquished by	MARIO SANTIESTEBAN (PCL)	2/9/23	1545
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr. FEB 09 2023		1545

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	(Yes) No
Samples intact?	(Yes) No
Samples properly preserved?	(Yes) No
Samples in holding time?	(Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO - Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0374

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Daniel Huey
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/10/23	1110	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.65/21.7c
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
FEB 10 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Daniel (IPC)	2/10/23	1125
Received by		MARIO SANTIESTEBAN (PCL)	2/10/23	1300
Relinquished by		MARIO SANTIESTEBAN (PCL)	2/10/23	1550
Received by				
Relinquished by				
Received in lab by		Alex Wellington (PCL)	FEB 10 2023	1550

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO - Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	AI - $AlCl_3$
G - Amber Glass	Cu - $CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0393

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC) Daily EFF**
Address:	9297 Research Drive	Sampled by:	Jesus Avalos
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/11/23	11:50	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.56 21.6°
〃	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	2/11/23	11:55
Received by:	Richard Mc (RW)	2/11/23	1250
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard Mc (RW)	2/11/23	1450

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? (Yes) No
Samples intact? (Yes) No
Samples properly preserved? (Yes) No
Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0400

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	P.O. #:
	Irvine CA 92618	Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2-12-23	915	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.46@21.3
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
FEB 12 2023
By

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		E. Morris	2-12-23	10:30
Received by		Alex Watson (PCL)	2-12-23	10:30
Relinquished by				
Received by				
Relinquished by				
Received in lab by		Alex Watson FEB	12 2023	1300

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 24-Feb-23 20:47
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0412-01) Collected: 13-Feb-23 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB31324	1.8	13-Feb-23	16-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB31324	1.8	13-Feb-23	16-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB31604	0.1	13-Feb-23	13-Feb-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB31530	0.05	15-Feb-23	15-Feb-23	**0.05 mg/l**	
EFF (Sample I.D.# : 23B0447-01) Collected: 14-Feb-23 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB31430	1.8	14-Feb-23	16-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB31430	1.8	14-Feb-23	16-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB31604	0.1	14-Feb-23	14-Feb-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB31530	0.05	15-Feb-23	15-Feb-23	**0.10 mg/l**	
EFF (Sample I.D.# : 23B0471-01) Collected: 15-Feb-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB31524	1.8	15-Feb-23	17-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB31524	1.8	15-Feb-23	17-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB31604	0.1	15-Feb-23	15-Feb-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB32243	0.05	24-Feb-23	24-Feb-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23B0512-01) Collected: 16-Feb-23 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB31609	1.8	16-Feb-23	18-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB31609	1.8	16-Feb-23	18-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB32025	0.1	16-Feb-23	16-Feb-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB32243	0.05	24-Feb-23	24-Feb-23	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 2/24/2023
Lab Director

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 24-Feb-23 20:47
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0552-01) Collected: 17-Feb-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB31711	1.8	17-Feb-23	19-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB31711	1.8	17-Feb-23	19-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB32025	0.1	17-Feb-23	17-Feb-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB32243	0.05	24-Feb-23	24-Feb-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23B0567-01) Collected: 18-Feb-23 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB31826	1.8	18-Feb-23	20-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB31826	1.8	18-Feb-23	20-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB32025	0.1	18-Feb-23	18-Feb-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB32243	0.05	24-Feb-23	24-Feb-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23B0575-01) Collected: 19-Feb-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AB31918	1.8	19-Feb-23	21-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB31918	1.8	19-Feb-23	21-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB32025	0.1	19-Feb-23	19-Feb-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB32243	0.05	24-Feb-23	24-Feb-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23B0588-01) Collected: 20-Feb-23 By CA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB32028	1.8	20-Feb-23	22-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB32028	1.8	20-Feb-23	22-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB32303	0.1	20-Feb-23	20-Feb-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB32243	0.05	24-Feb-23	24-Feb-23	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 2/24/2023
Lab Director

PAT-CHEM
LABORATORIES

QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 24-Feb-23 20:47
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0625-01) Collected: 21-Feb-23 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB32130	1.8	21-Feb-23	23-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB32130	1.8	21-Feb-23	23-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB32303	0.1	21-Feb-23	21-Feb-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB32243	0.05	24-Feb-23	24-Feb-23	**0.05 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 2/24/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0412

Customer: IPC - Integrated Performance Consultants, Inc.		Project : **(MCC) Daily EFF**	
Address: 9297 Research Drive Irvine CA 92618		Sampled by: Daniel Huey Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/13/23	1100	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.33 / 20.8c
u	"	u	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 13 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel (IPC)	2/13/23	1110
Received by	MARIO SANTIESTEBAN (PCL)	2/13/23	1305
Relinquished by	MARIO SANTIESTEBAN (PCL)	2/13/23	1610
Received by			
Relinquished by			
Received in lab by	Alex Wanda	FEB 13 2023	1610

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab **Comp**	**HC** - HCl **HS** - H_2SO_4
Matrix **AQ** - Water **SO** -Soil / Sludge **OT** - Other	**HN** - HNO_3 **HP** - H_3PO_4 **OH** - NaOH **ST** - Sodium Thiosulfate
Bottle Type **P** - Plastic **G** - Amber Glass **VOA** - 40 ml Vial **Coli** - bacteria	**AA** - Ascorbic Acid **Al** - $AlCl_3$ **Cu** -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0447

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by: Daniel Huey Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/14/23	1100	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.54 / 20.5c
u	u	u	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel (IPC)	2/14/23	1140
Received by	MARIO SANTIESTEBAN (PCL)	2/14/23	1330
Relinquished by	MARIO SANTIESTEBAN (PCL)	2/14/23	1720
Received by			
Relinquished by			
Received in lab by	Alex Wehmeier	2/14/23	1720

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid Al - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0471

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Ervin Tucker Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/15/23	11:22am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.47/20.5°C
EFF	2/15/23	11:22am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 15 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by:	Ervin Tucker (IPC)	2/15/23	12:00pm
Received by:	Richard M. (CAL)	2/15/23	1446
Relinquished by:	Richard M. (CAL)	2/15/23	1625
Received by:			
Relinquished by:			
Received in lab by:	Alexander Kuznetsov (PCL)	FEB 15 2023	1625

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid Al - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0512

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jonathan Wu
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/16/23	11:33	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.37 / 20.0°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
FEB 16 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	2/16/23	11:40
Received by	Richard Vardel (PCL)	2/16/23	1320
Relinquished by	Richard Vardel (PCL)	2/16/23	1550
Received by			
Relinquished by			
Received in lab by	Alex Walton FEB 16 2023		1550

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0552

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: ERVIN TUCKER	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/17/23	10:44 am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.48/20.3 °C
EFF	2/17/23	10:44 am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 17 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	ERVIN Tucker (IPC)	2/17/23	11:09am
Received by	Richard M. (PCL)	2/17/23	1320
Relinquished by	Richard M. (PCL)	2/17/23	1453
Received by			
Relinquished by			
Received in lab by	Alex Walker FEB 17 2023		1455

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid Al - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0562

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :** (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	**Sampled by:** Jesus Avalos **Report Attention:** Ric Vardel / Golan Kfir	**P.O. #:** **Phone #:** 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/18/23	11:50	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.62 20.9°
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	2/18/23	11:55
Received by:	Richard VL (PCL)	2/18/23	1200
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard VL (PCL)	2/18/23	1440

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? (Yes) No
Samples intact? (Yes) No
Samples properly preserved? (Yes) No
Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0575

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Ric Vardel / Golan Kfir
		Report Attention:	
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2-19-23	9 00	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.0 @ 19.7
	11	11	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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FEB 19 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by		2-19-23	10:55
Received by	Alex Wong (Psy)	2-19-23	10:58
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Alex Wong FEB 19 2023		1328

Sample Received Checklist

Temperature upon receipt:	4 °C	
# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 2330588

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :** (MCC) Daily EFF	
Address: 9297 Research Drive, Irvine CA 92618	**Sampled by:** Carlos Alvarez	**P.O. #:**	
	Report Attention: Ric Vardel / Golan Kfir	**Phone #:** 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	02/20/23	1125	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
1	1	1							

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FEB 20 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	02/20/23	1140
Received by		Richard M (PCL)	2/20/23	1420
Relinquished by		Richard M (PCL)	2/20/23	1535
Received by				
Relinquished by				
Received in lab by		Alex Walker FEB 20 2023		1535

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0625

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jesus Avalos
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/21/23	11:25	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.59 21.3°
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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FEB 2 1 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	2/21/23	11:30
Received by:	Richard M. (PCL)	2/21/23	1440
Relinquished by:	Richard M. (PCL)	2/21/23	1615
Received by:			
Relinquished by:			
Received in lab by:	Alex Ward ON FEB 2 1 2023		1615

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid Al - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 06-Mar-23 13:20
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0651-01) Collected: 22-Feb-23 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB32232	1.8	22-Feb-23	24-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB32232	1.8	22-Feb-23	24-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB32303	0.1	22-Feb-23	22-Feb-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB32243	0.05	24-Feb-23	24-Feb-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23B0681-01) Collected: 23-Feb-23 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB32311	1.8	23-Feb-23	26-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB32311	1.8	23-Feb-23	26-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB32413	0.1	23-Feb-23	23-Feb-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB32243	0.05	24-Feb-23	24-Feb-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23B0727-01) Collected: 24-Feb-23 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB32409	1.8	24-Feb-23	27-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB32409	1.8	24-Feb-23	27-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB32820	0.1	24-Feb-23	24-Feb-23	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB32243	0.05	24-Feb-23	24-Feb-23	**0.08 mg/l**	
EFF (Sample I.D.# : 23B0743-01) Collected: 25-Feb-23 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB32517	1.8	25-Feb-23	27-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB32517	1.8	25-Feb-23	27-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB32820	0.1	25-Feb-23	25-Feb-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB32719	0.05	27-Feb-23	27-Feb-23	**<0.05 mg/l**	

Respectfully Submitted,



Stephen Sakai 3/6/2023
Lab Director

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 06-Mar-23 13:20
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0775-01) Collected: 26-Feb-23 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB32623	1.8	26-Feb-23	28-Feb-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB32623	1.8	26-Feb-23	28-Feb-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB32820	0.1	26-Feb-23	26-Feb-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AB32719	0.05	27-Feb-23	27-Feb-23	**0.10 mg/l**	
EFF (Sample I.D.# : 23B0810-01) Collected: 27-Feb-23 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB32724	1.8	27-Feb-23	02-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB32724	1.8	27-Feb-23	02-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AB32820	0.1	27-Feb-23	27-Feb-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC30221	0.05	02-Mar-23	03-Mar-23	**0.07 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/6/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0651

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jesus Avalos
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/22/23	11:40	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	
〃	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 22 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	2/22/23	11:45
Received by:	Richard M. (PCL)	2/22/23	1405
Relinquished by:	Richard M. (PCL)	2/22/23	1550
Received by:			
Relinquished by:			
Received in lab by:	Alexander Jr. FEB 22 2023		1550

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO - Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	Al - $AlCl_3$
G - Amber Glass	Cu - $CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0681

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jonathan W.
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/23/23	11:12	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.50 / 19.3°C
↓	↓	↓	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	↓

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FEB 23 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan W. (IPC)	2/23/23	11:20
Received by	MARIO SANTIESTEBAN (PCL)	2/23/23	1320
Relinquished by	MARIO SANTIESTEBAN (PCL)	2/23/23	1555
Received by			
Relinquished by			
Received in lab by	Alex Ibarra (PCL)	FEB 23 2023	1535

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0727

Customer: IPC - Integrated Performance Consultants, Inc.		Project: (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Jesus Avalos	P.O. #:
Irvine . CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/24/23	11:35	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.68 18.5°
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 24 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	2/24/23	14:40
Received by:	MARIO SANTIESTEBAN (PCL)	2/24/23	1350
Relinquished by:	MARIO SANTIESTEBAN (PCL)	2/24/23	1605
Received by:			
Relinquished by:			
Received in lab by:	Alex Watman FEB	2 4 2023	1605

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO - Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	Al - $AlCl_3$
G - Amber Glass	Cu - $CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0743

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jesus Arvalos
	Irvine . CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/25/23	11:50	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.56 18.0°
〃	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Arvalos	Jesus Arvalos (PC)	2/25/23	11:55
Received by	Richard M. (PCL)	2/25/23	1250
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Richard M. (PCL)	2/25/23	1405

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	(Yes) No
Samples intact?	(Yes) No
Samples properly preserved?	(Yes) No
Samples in holding time?	(Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**AI** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0775

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by:	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2-26-23	920	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.51 @ 17.9
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
FEB 26 2023
By

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. Murray	2-26-23	940
Received by	Alex Wallin Jr	2/26/23	9:40
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Alex Wallin Jr FEB 26 2023		1230

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0810

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jonathan Wu
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/27/23	11:30	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.36 / 18.2°C
↓	↓	↓	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	↓

RECEIVED
FEB 27 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Jonathan Wu (IPC)	2/27/23	11:35
Received by		Richard M. (IPC)	2/27/23	1350
Relinquished by		Richard M. (IPC)	2/27/23	1600
Received by				
Relinquished by				
Received in lab by		Alex Watson	FEB 27 2023	1600

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**AI** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 12-Mar-23 19:07
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0846-01) Collected: 28-Feb-23 By Mario Aguirre of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AB32829	1.8	28-Feb-23	02-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AB32829	1.8	28-Feb-23	02-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC30213	0.1	28-Feb-23	28-Feb-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC30417	0.05	04-Mar-23	07-Mar-23	**0.11 mg/l**	
EFF (Sample I.D.# : 23C0045-01) Collected: 01-Mar-23 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AC30131	1.8	01-Mar-23	03-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC30131	1.8	01-Mar-23	03-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC30213	0.1	01-Mar-23	01-Mar-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC30417	0.05	04-Mar-23	07-Mar-23	**0.07 mg/l**	
EFF (Sample I.D.# : 23C0065-01) Collected: 02-Mar-23 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AC30209	1.8	02-Mar-23	04-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC30209	1.8	02-Mar-23	04-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC30213	0.1	02-Mar-23	02-Mar-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31017	0.05	10-Mar-23	10-Mar-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23C0247-01) Collected: 03-Mar-23 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AC30315	1.8	03-Mar-23	05-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC30315	1.8	03-Mar-23	05-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC30723	0.1	03-Mar-23	03-Mar-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31017	0.05	10-Mar-23	10-Mar-23	**0.11 mg/l**	

Respectfully Submitted,

Stephen Sakai 3/12/2023
Lab Director

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 12-Mar-23 19:07
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0258-01) Collected: 04-Mar-23 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AC30418	1.8	04-Mar-23	06-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC30418	1.8	04-Mar-23	06-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC30723	0.1	04-Mar-23	04-Mar-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31017	0.05	10-Mar-23	10-Mar-23	**0.24 mg/l**	
EFF (Sample I.D.# : 23C0263-01) Collected: 05-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC30514	1.8	05-Mar-23	07-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC30514	1.8	05-Mar-23	07-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC30723	0.1	05-Mar-23	05-Mar-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31017	0.05	10-Mar-23	10-Mar-23	**0.06 mg/l**	
EFF (Sample I.D.# : 23C0303-01) Collected: 06-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC30627	1.8	06-Mar-23	09-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC30627	1.8	06-Mar-23	09-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC30723	0.1	06-Mar-23	06-Mar-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31017	0.05	10-Mar-23	10-Mar-23	**0.28 mg/l**	

Respectfully Submitted,

Stephen Sakai 3/12/2023
Lab Director

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1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 12-Mar-23 19:07
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,

Stephen Sakai 3/12/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0846

Customer: IPC - Integrated Performance Consultants, Inc.		Project: (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Mario Aguirre	P.O. #:
Irvine . CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/28/23	11.45	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.45 / 19.7°
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 28 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	2/28/23	12:12
Received by	MARIO SANTIESTEBAN (PCL)	2/28/23	1400
Relinquished by	MARIO SANTIESTEBAN (PCL)	2/28/23	1750
Received by			
Relinquished by			
Received in lab by	Brock Warrington FEB 28 2023		1750

Sample Received Checklist

Temperature upon receipt: 4 °C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0045

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Daniel Hwy
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/1/23	1115	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.41 / 19.1c
u	u	u	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
MAR 0 1 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel Hwy	Daniel (IPC)	3/1/23	1150
Received by		Richard M. (PCL)	3/1/23	1400
Relinquished by		Richard M. (PCL)	3/1/23	1535
Received by				
Relinquished by				
Received in lab by		Alex Wardell Jr.	MAR 0 1 2023	1535

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO - Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	Al - $AlCl_3$
G - Amber Glass	Cu - $CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0065

Customer: IPC - Integrated Performance Consultants, Inc.		Project: (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Jonathan Wu	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: (Field) Lab
EFF	03/02/23	7:06	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.47 / [redacted] 17.6°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	7.47 / 17.6°C

RECEIVED
MAR 02 2023
B

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	03/02/23	8:53
Received by	Cindy Manning	3-2-23	8:53
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Alex Wan Jr	MAR 02 2023	8:57

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC? (Yes) No

Samples intact? (Yes) No

Samples properly preserved? (Yes) No

Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 230247

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
P.O. #:		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/3/23	10:45am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.4 / 19.9°C
EFF	3/3/23	10:45am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	ERVIN Tucker (IPC)	3/3/23	11:05am
Received by	Richard M. (PCL)	3/3/23	1330
Relinquished by	Richard M. (PCL)	3/3/23	1435
Received by			
Relinquished by			
Received in lab by		3/3/23	1435

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

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1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0258

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jesus Avalos
	Irvine . CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/4/23	11:50	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.59 18.3°
〃	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	3/4/23	11:55
Received by	Richard M. (PCL)	3/4/23	1220
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Richard M. (PCL)	3/4/23	1400

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? (Yes) No
Samples intact? (Yes) No
Samples properly preserved? (Yes) No
Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO - Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0263

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Ei
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3-5-23	915	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.46 @ 19.6
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	3/5/23	925
Received by	Cindy Mtg	3-5-23	1150
Relinquished by	Cindy MTG	3-5-23	1255
Received by			
Relinquished by			
Received in lab by	Crystal D/PCL	3/5/23	12:55

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0303

Customer: IPC - Integrated Performance Consultants, Inc.		Project : **(MCC) Daily EFF**	
Address: 9297 Research Drive		Sampled by: Daniel Huey	P.O. #:
Irvine	CA .92618	Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field / Lab
EFF	3/6/23	1230	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.96/20.6c
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel Huey	Daniel (IPC)	3/6/23	1240
Received by		MARIO SANTIESTEBAN (PCL)	3/6/23	1340
Relinquished by		MARIO SANTIESTEBAN (PCL)	3/6/23	1550
Received by				
Relinquished by				
Received in lab by		Crystal D/PCL	3/6/23	15:50

Sample Received Checklist

Temperature upon receipt: _____
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 16-Mar-23 08:31
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0346-01) Collected: 07-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC30736	1.8	07-Mar-23	10-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC30736	1.8	07-Mar-23	10-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC31333	0.1	07-Mar-23	07-Mar-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31017	0.05	10-Mar-23	10-Mar-23	**0.13 mg/l**	
EFF (Sample I.D.# : 23C0410-01) Collected: 08-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC30831	1.8	08-Mar-23	10-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC30831	1.8	08-Mar-23	10-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC31338	0.1	08-Mar-23	08-Mar-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31017	0.05	10-Mar-23	10-Mar-23	**0.05 mg/l**	
EFF (Sample I.D.# : 23C0449-01) Collected: 09-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC30913	1.8	09-Mar-23	11-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC30913	1.8	09-Mar-23	11-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC31338	0.1	09-Mar-23	09-Mar-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31017	0.05	10-Mar-23	10-Mar-23	**0.08 mg/l**	
EFF (Sample I.D.# : 23C0497-01) Collected: 10-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC31018	1.8	10-Mar-23	12-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC31018	1.8	10-Mar-23	12-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC31338	0.1	10-Mar-23	10-Mar-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31325	0.05	13-Mar-23	14-Mar-23	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 3/16/2023
Lab Director

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 16-Mar-23 08:31
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0505-01) Collected: 11-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC31121	1.8	11-Mar-23	13-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC31121	1.8	11-Mar-23	13-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC31338	0.1	11-Mar-23	14-Mar-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31325	0.05	13-Mar-23	14-Mar-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23C0513-01) Collected: 12-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC31221	1.8	12-Mar-23	14-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC31221	1.8	12-Mar-23	14-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC31338	0.1	12-Mar-23	12-Mar-23	**7.9 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31325	0.05	13-Mar-23	14-Mar-23	**<0.05 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/16/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0346

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Daniel Huey	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/7/23	1050	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.48 / 20.2c
u	u	u	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel (IPC)	3/7/23	1140
Received by	MARIO SANTIESTEBAN (PCL)	3/7/23	1310
Relinquished by	MARIO SANTIESTEBAN (PCL)	3/7/23	1445
Received by			10
Relinquished by			
Received in lab by	Cindy Martinez	3-7-23	1455

Sample Received Checklist

Temperature upon receipt: _____
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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Pat-Chem Laboratories
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San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 2360410

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Daniel Huey
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/8/23	1050	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.5/19.2c
u	u	u	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Huey	Daniel (IPC)	3/8/23	1125
Received by:	MARIA SANTIESTEBAN (PCL)	3/8/23	1410
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by: Crystal D	Crystal D (PCL)	3/8/23	16:00

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

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1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 230449

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jonathan Wu
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/9/23	11:25	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.44/20.2°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	3/9/23	11:32
Received by	MARIO SANTIESTEBAN (PCL)	3/9/23	16:10
Relinquished by	MARIO SANTIESTEBAN (PCL)	3/9/23	1610
Received by			
Relinquished by			
Received in lab by	Crystal D (PCL)	3/9/23	16:10

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Sample Received Checklist

Temperature upon receipt: _____
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

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Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample 23C0497
Sample I.D.#: ~~23C0449~~ vs

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Golan Kfir
	Irvine CA. 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/10/23	12:20	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: GK	Golan IPC	3/10/23	13 30
Received by:	MARIO SANTIESTEBAN (PCL)	3/10/23	1330
Relinquished by:	MARIO SANTIESTEBAN (PCL)	3/10/23	1515
Received by:			
Relinquished by:			
Received in lab by:	CRYSTAL D (PCL)	3/10/23	15:15

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

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San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0505

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC) Daily EFF**
Address:	9297 Research Drive	Sampled by:	Jesus Avalos
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
P.O. #:		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/11/23	11:55	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.55 20.3°
〃	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	3/11/23	12:00
Received by	Richard M. (PCL)	3/11/23	1300
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Richard M. (PCL)	3/11/23	1505

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC? (Yes) No

Samples intact? (Yes) No

Samples properly preserved? (Yes) No

Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
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Environmental Sample

Sample I.D.#: 23C0513

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC) Daily EFF**
Address:	9297 Research Drive	Sampled by:	P.O. #:
	Irvine CA 92618	Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3-12-23	900	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.9 / 4.0 °C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	3-12-23	925
Received by	Cindy Mary	3-12-23	1148
Relinquished by			
Received by			
Relinquished by			
Received by in lab by	Cindy Mary	3-12-23	1:45

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 29-Mar-23 14:40
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0533-01) Collected: 13-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC31330	1.8	13-Mar-23	16-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC31330	1.8	13-Mar-23	16-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC31338	0.1	13-Mar-23	13-Mar-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31605	0.05	16-Mar-23	16-Mar-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23C0595-01) Collected: 14-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC31427	1.8	14-Mar-23	17-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC31427	1.8	14-Mar-23	17-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC31921	0.1	14-Mar-23	14-Mar-23	**7.3 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31605	0.05	16-Mar-23	16-Mar-23	**0.14 mg/l**	
EFF (Sample I.D.# : 23C0686-01) Collected: 15-Mar-23 By IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AC31531	1.8	15-Mar-23	18-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC31531	1.8	15-Mar-23	18-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC32224	0.1	15-Mar-23	15-Mar-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC31605	0.05	16-Mar-23	16-Mar-23	**0.11 mg/l**	
EFF (Sample I.D.# : 23C0770-01) Collected: 16-Mar-23 By IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AC31609	1.8	16-Mar-23	18-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC31609	1.8	16-Mar-23	18-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC32224	0.1	16-Mar-23	16-Mar-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC32021	0.05	21-Mar-23	21-Mar-23	**0.06 mg/l**	

Respectfully Submitted,



Stephen Sakai 3/29/2023
Lab Director

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
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(818) 639-5300 ph
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pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 29-Mar-23 14:40
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0823-01) Collected: 17-Mar-23 By IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AC31711	1.8	17-Mar-23	19-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC31711	1.8	17-Mar-23	19-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC32224	0.1	17-Mar-23	17-Mar-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC32021	0.05	21-Mar-23	21-Mar-23	**0.09 mg/l**	
EFF (Sample I.D.# : 23C0854-01) Collected: 18-Mar-23 By IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AC31822	1.8	18-Mar-23	20-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC31822	1.8	18-Mar-23	20-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC32623	0.1	18-Mar-23	18-Mar-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC32021	0.05	21-Mar-23	21-Mar-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23C0864-01) Collected: 19-Mar-23 By IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AC31922	1.8	19-Mar-23	21-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC31922	1.8	19-Mar-23	21-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC32623	0.1	19-Mar-23	19-Mar-23	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC32021	0.05	21-Mar-23	21-Mar-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23C0890-01) Collected: 20-Mar-23 By IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AC32023	1.8	20-Mar-23	22-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC32023	1.8	20-Mar-23	22-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC32623	0.1	20-Mar-23	20-Mar-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC32124	0.05	21-Mar-23	22-Mar-23	**0.11 mg/l**	

Respectfully Submitted,

Stephen Sakai 3/29/2023
Lab Director

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 29-Mar-23 14:40
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0935-01) Collected: 21-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC32125	1.8	21-Mar-23	24-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC32125	1.8	21-Mar-23	24-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC32728	0.1	21-Mar-23	21-Mar-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC32723	0.05	27-Mar-23	27-Mar-23	**0.05 mg/l**	
EFF (Sample I.D.# : 23C0968-01) Collected: 22-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC32246	1.8	22-Mar-23	24-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC32246	1.8	22-Mar-23	24-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC32728	0.1	22-Mar-23	22-Mar-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC32723	0.05	27-Mar-23	27-Mar-23	**<0.05 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/29/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 2300533

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Carlos Alvarez
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	03/13/23	1145	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.46 / 21.1°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	03/13/23	1158
Received by		Cindy Martinez	3-13-23	13:10
Relinquished by		Cindy Martinez	3-13-23	14:36
Received by				
Relinquished by				
Received in lab by		Crystal D(PCL)	3/13/23	14:36

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 2300595

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Golan Kfir
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/14/23	12:10	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.3 / 17.4
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by GK	Golan IPC	3/14/23	1330
Received by	Cindy M	3.14.23	1330
Relinquished by	Cindy M	3.14.23	16:00
Received by			
Relinquished by			
Received in lab by	Theresa T/PCL	3/14/23	16:00

Sample Received Checklist

Temperature upon receipt: _____
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0686

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Carlos Alvarez
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	03/15/23	1140	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.61 / 19.9°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	03/15/23	1150
Received by		MARIO SANTIESTEBAN (PCL)	3/15/23	1350
Relinquished by		MARIO SANTIESTEBAN (PCL)	3/15/23	1520
Received by				
Relinquished by				
Received in lab by		THERESA T. (PCL)	3/15/29	15:20

Sample Received Checklist

Temperature upon receipt: _____
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 230770

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Carlos Alvarez
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field / Lab
EFF	03/16/23	1145	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.60 / 20.1°C
	(	1	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	03/16/23	1155
Received by		MARIO SANTIESTEBAN (PCL)	3/16/23	1410
Relinquished by		MARIO SANTIESTEBAN (PCL)	3/16/23	1650
Received by				
Relinquished by				
Received in lab by		Crystal D/P(CL)	3/16/23	16:50

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0823

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Ervin Tucker	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/17/23	11:00am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.57 / 19.2°C
EFF			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	3/17/23	11:20am
Received by	Mario San Jesteban (PCL)	3/17/23	1325
Relinquished by	Mario San Jesteban (PCL)	3/17/23	1505
Received by			
Relinquished by			
Received in lab by			

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0854

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :** (MCC) Daily EFF	
Address: 9297 Research Drive		**Sampled by:** Jesus Andres	**P.O. #:**
Irvine CA 92618		**Report Attention:** Ric Vardel / Golan Kfir	**Phone #:** 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/18/23	10:30	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.51 20.6°
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Andres	Jesus Andres (IPC)	3/18/23	10:40
Received by:	Richard M. (PCL)	3/18/23	1228
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard M. (PCL)	3/18/23	1440

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC? (Yes) No

Samples intact? (Yes) No

Samples properly preserved? (Yes) No

Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 2300864

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC) Daily EFF**
Address:	9297 Research Drive	Sampled by:	Client
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3-19-23	905	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.66
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. Morris	3-19-23	915
Received by	Richard M. (PCL)	3/19/23	1100
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Richard M. (PCL)	3/19/23	1225

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC? (Yes) No

Samples intact? (Yes) No

Samples properly preserved? (Yes) No

Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0890

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jonathan Wu
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: (Field) Lab
EFF	3/20/23	11:35	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.59 / 21.3°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	3/20/23	11:40
Received by	MARIO SANTIESTEBAN (PCL)	3/20/23	1400
Relinquished by	MARIO SANTIESTEBAN (PCL)	3/20/23	1515
Received by			
Relinquished by			
Received in lab by	MARIO SANTIESTEBAN (PCL)	3/20/23	1515

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	(Yes)	No
Samples intact?	(Yes)	No
Samples properly preserved?	(Yes)	No
Samples in holding time?	~~Yes~~	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid AI - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Cal-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0935

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC) Daily EFF**
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
P.O. #:		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/21/23	11:20am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.48 / 21.2°C
EFF	3/21/23	11:20am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by:	Ervin Tucker (IPC)	3/21/23	11:35am
Received by:	MARIO SANTIESTEBAN (PCL)	3/21/23	1325
Relinquished by:	MARIO SANTIESTEBAN (PCL)	3/21/23	1600
Received by:			
Relinquished by:			
Received in lab by:			

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 2300968

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Mario Aguirre
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field / Lab
EFF	3/22/23	11:05	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.37 / 19.5°
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	3/22/23	11:20
Received by	MARIO SANTIESTEBAN (PCL)	3/22/23	1450
Relinquished by	MARIO SANTIESTEBAN (PCL)	3/12/23	1600
Received by			
Relinquished by			
Received in lab by			

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 03-Apr-23 10:38
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C1028-01) Collected: 23-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC32311	1.8	23-Mar-23	25-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC32311	1.8	23-Mar-23	25-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC32925	0.1	23-Mar-23	23-Mar-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC32723	0.05	27-Mar-23	27-Mar-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23C1071-01) Collected: 24-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC32406	1.8	24-Mar-23	26-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC32406	1.8	24-Mar-23	26-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC32925	0.1	24-Mar-23	24-Mar-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC32723	0.05	27-Mar-23	27-Mar-23	**0.16 mg/l**	
EFF (Sample I.D.# : 23C1078-01) Collected: 25-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC32517	1.8	25-Mar-23	27-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC32517	1.8	25-Mar-23	27-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC32925	0.1	25-Mar-23	25-Mar-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC32819	0.05	28-Mar-23	29-Mar-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23C1084-01) Collected: 26-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC32619	1.8	26-Mar-23	28-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC32619	1.8	26-Mar-23	28-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC32925	0.1	26-Mar-23	26-Mar-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC32819	0.05	28-Mar-23	29-Mar-23	**0.16 mg/l**	

Respectfully Submitted,



Stephen Sakai 4/3/2023
Lab Director

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 03-Apr-23 10:38
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C1109-01) Collected: 27-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC32725	1.8	27-Mar-23	30-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC32725	1.8	27-Mar-23	30-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AC32936	0.1	27-Mar-23	27-Mar-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC32819	0.05	28-Mar-23	29-Mar-23	**<0.05 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 4/3/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23(B)1028

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/23/23	11:00 am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.42/20.4°C
EFF	3/23/23	11:00 am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	3/23/23	11:16am
Received by	MARIO SANTIESTEBAN (PCL)	3/23/23	~~1410~~ 1425
Relinquished by	MARIO SANTIESTEBAN (PCL)	3/23/23	1605
Received by			
Relinquished by			
Received in lab by			

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C1071

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Ervin Tucker	P.O. #:
Irvine . CA 92618		Report Attention: Ric Vardel / Golan Kfir .	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/24/23	11:06am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.59 / 20.6°C
EFF	3/24/23	11:06am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by:	Ervin Tucker (IPC)	3/24/23	11:21am
Received by:	MARIO SANTIESTEBAN (PCL)	3/24/23	1420
Relinquished by:	MARIO SANTIESTEBAN	3/24/23	1610
Received by:			
Relinquished by			
Received in lab by			

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
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Environmental Sample

Sample I.D.#: 23C1078

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC) Daily EFF**
Address:	9297 Research Drive	Sampled by:	Jesus Avalos
	Irvine . CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/25/23	12:10	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.60 20.4°
〃	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	3/25/23	1210
Received by:	Richard M. (PCL)	3/25/23	1210
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard M. (PCL)	3/25/23	1440

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC? (Yes) No

Samples intact? (Yes) No

Samples properly preserved? (Yes) No

Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C1084

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC) Daily EFF**
Address:	9297 Research Drive	Sampled by:	P.O. #:
	Irvine CA 92618	Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3-26-23	901	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.55 pH @ 20.1
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	3-26-23	924
Received by	(Cogency)	3-26-23	1233
Relinquished by			
Received by			
Relinquished by			
Received in lab by			1330

Sample Received Checklist

Temperature upon receipt: _____
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
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Environmental Sample

Sample I.D.#: 23C1109

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Daniel Huey
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/27/23	1120	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.56/20.6C
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel (IPC)	3/27/23	1205
Received by	Cindy Arthur	3/27/23	1216
Relinquished by	Cindy M	3/27	1322
Received by			
Relinquished by			
Received in lab by	Crystal D/PCL	3/27/23	13:22

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Sample Received Checklist

Temperature upon receipt: _____
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Rev 2 Effective 5/1/17

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(818) 639-5300 ph
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pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 07-Apr-23 17:51
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C1157-01) Collected: 28-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC32828	1.8	28-Mar-23	30-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC32828	1.8	28-Mar-23	30-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AD30327	0.1	28-Mar-23	28-Mar-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC33104	0.05	31-Mar-23	31-Mar-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23C1206-01) Collected: 29-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC32931	1.8	29-Mar-23	31-Mar-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC32931	1.8	29-Mar-23	31-Mar-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AD30706	0.1	29-Mar-23	29-Mar-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC33104	0.05	31-Mar-23	31-Mar-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23C1243-01) Collected: 30-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC33016	1.8	30-Mar-23	01-Apr-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC33016	1.8	30-Mar-23	01-Apr-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AD30706	0.1	30-Mar-23	30-Mar-23	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AC33104	0.05	31-Mar-23	31-Mar-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23C1293-01) Collected: 31-Mar-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AC33108	1.8	31-Mar-23	02-Apr-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AC33108	1.8	31-Mar-23	02-Apr-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AD30706	0.1	31-Mar-23	31-Mar-23	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AD30521	0.05	05-Apr-23	06-Apr-23	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 4/7/2023
Lab Director

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Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 07-Apr-23 17:51
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23D0004-01) Collected: 01-Apr-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AD30120	1.8	01-Apr-23	03-Apr-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AD30120	1.8	01-Apr-23	03-Apr-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AD30713	0.1	01-Apr-23	01-Apr-23	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AD30521	0.05	05-Apr-23	06-Apr-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23D0012-01) Collected: 02-Apr-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AD30217	1.8	02-Apr-23	04-Apr-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AD30217	1.8	02-Apr-23	04-Apr-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AD30713	0.1	02-Apr-23	02-Apr-23	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AD30521	0.05	05-Apr-23	06-Apr-23	**<0.05 mg/l**	
EFF (Sample I.D.# : 23D0037-01) Collected: 03-Apr-23 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AD30322	1.8	03-Apr-23	05-Apr-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AD30322	1.8	03-Apr-23	05-Apr-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AD30713	0.1	03-Apr-23	03-Apr-23	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AD30521	0.05	05-Apr-23	06-Apr-23	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 4/7/2023
Lab Director

PAT-CHEM
LABORATORIES

QUALITY ANALYTICAL SERVICES SINCE 1987

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(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 07-Apr-23 17:51
Subject: (MCC) Daily EFF

Project/P.O.#: (MCC) Daily EFF

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 4/7/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C01157

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Daniel Huey
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field / Lab
EFF	3/28/23	1110	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.54 / 21c
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Huey	Daniel (IPC)	3/28/23	1200
Received by:	MARIO SANTIESTEBAN (PCL)	3/28/23	1450
Relinquished by:	MARIO SANTIESTEBAN (PCL)	3/28/23	1655
Received by			
Relinquished by			
Received in lab by			

Sample Received Checklist

Temperature upon receipt:		
# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C1206

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC) Daily EFF**
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
P.O. #:		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/29/23	10:50am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.52/20.5 °C
EFF	3/29/23	10:50am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	3/29/23	11:15AM
Received by	MARIO SANTIESTEBAN (PCL)	3/29/23	1410
Relinquished by	MARIO SANTIESTEBAN (PCL)	3/29/23	1550
Received by			
Relinquished by			
Received in lab by			

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C1243

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC) Daily EFF**
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/30/23	10:37am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.38 / 20.1°C
EFF	3/30/23	10:37am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	3/30/23	10:53am
Received by	MARIO SANTIESTEBAN (PCL)	3/30/23	1258
Relinquished by	MARIO SANTIESTEBAN (PCL)	3/30/23	1610
Received by			
Relinquished by			
Received in lab by			

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C1293

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Jesus Avalos	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/31/23	11:30	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.52 19.8°
〃	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

~~Geotracker EDD:~~
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	3/31/23	11:40
Received by:	Cindy Martinez	3/31/23	13:06
Relinquished by:	Cindy M	3/31/23	14:45
Received by:			
Relinquished by:			
Received in lab by:	Crystal D/PLL	3/31/23	14:45

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Sample Received Checklist

Temperature upon receipt: _____
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23D0004

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive	Sampled by:	Jesus Avalos
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	4/1/23	11:00	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.55 20.5°
4	4	11	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
~~Geotracker EDD:~~ Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	4/1/23	11:10
Received by	Richard M (PCL)	4/1/23	1200
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Richard M (PCL)	4/1/23	1410

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC? (Yes) No

Samples intact? (Yes) No

Samples properly preserved? (Yes) No

Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** - $CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

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San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
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Environmental Sample

Sample I.D.#: 23D0012

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618		Sampled by: Client Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	4-2-23	910	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.70 @ 22.1
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	4-2-23	915
Received by	Richard M. (PCL)	4/2/23	1000
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Richard M (PCL)	4/2/23	1155

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? (Yes) No
Samples intact? (Yes) No
Samples properly preserved? (Yes) No
Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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Pat-Chem Laboratories
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San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23D0037

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC) Daily EFF**
Address:	9297 Research Drive	Sampled by:	Mario Aguirre
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: **Field** **Lab**
EFF	4/3/23	11:28	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.69
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by	MA	Mario Aguirre (IPC)	4/3/23	11:31
Received by		Cinelyn M	4/3/23	12pm
Relinquished by		Cinelyn	4/3/23	1320
Received by				
Relinquished by				
Received in lab by				

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? **Yes** **No**

Samples intact? **Yes** **No**

Samples properly preserved? **Yes** **No**

Samples in holding time? **Yes** **No**

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
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Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 20-Jan-23 15:21
Subject: (MCC) Weekly EFF A

Project/P.O.#: (MCC) Weekly EFF A

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0103-01) Collected: 04-Jan-23 By DH of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AA30615	1	06-Jan-23	09-Jan-23	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AA30938	0.10	09-Jan-23	11-Jan-23	**0.27 mg/l**	
Nitrate as N	EPA 353.2	AA30503	0.05	05-Jan-23	05-Jan-23	**1.05 mg/l**	
Nitrite as N	EPA 353.2	AA30503	0.05	05-Jan-23	05-Jan-23	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AA31207	0.20	12-Jan-23	13-Jan-23	**1.02 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 1/20/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0103

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - A
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Daniel Huey
		Report Attention:	Ric Vardell / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/4/23	1125	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	
"	"	"	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
"	"	"	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 04 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Huey	Daniel (IPC)	1/4/23	1210
Received by	Richard M. (PCL)	1/4/23	1350
Relinquished by	Richard M. (PCL)	1/4/23	1500
Received by			
Relinquished by			
Received in lab by	Alex Wolanski JAN 04 2023		1500

Sample Received Checklist

Temperature upon receipt: 4° C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** - $CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
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Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 11-Jan-23 17:33
Subject: (MCC) Weekly EFF B

Project/P.O.#: (MCC) Weekly EFF B

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0131-01) Collected: 04-Jan-23 By DH of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AA30611	2	06-Jan-23	11-Jan-23	**<2 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 1/11/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (805) 532-0012
Fax (805) 532-0016

Environmental Sample

Sample I.D.#: 23AO131

Customer: IPC, Inc.		Project: MCC Weekly EFF - B	
Address: 9297 Research Drive	Sampled by: Daniel Huey	P.O. #:	
Irvine, CA 92618	Report Attention: Ric Vardel / Golan Kfir	Phone #: (949) 382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/4/23	2359	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1L P	4° C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 05 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Huey	Daniel (IPC)	1/5/23	1215
Received by:	Juan D. (IPC)	1/5/23	13:03
Relinquished by:	Juan D (IPC)	1/5/23	15:55
Received by:			
Relinquished by:			
Received in lab:	JAN 05 2023	1/5/23	15:55

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Matrix	Bottle Type
Grab	**AQ** - Water	**P** - Plastic
Comp	**SO** -Soil / Sludge	**G** - Amber Glass
	OT - Other	**VOA** - 40 ml Vial
		Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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(818) 639-5306 fx
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Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 07-Feb-23 20:01
Subject: (MCC) Weekly EFF A

Project/P.O.#: (MCC) Weekly EFF A

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0340-01) Collected: 10-Jan-23 By ET of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AA31316	1	13-Jan-23	14-Jan-23	**1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AA31311	0.10	13-Jan-23	13-Jan-23	**0.10 mg/l**	
Nitrate as N	EPA 353.2	AA31310	0.05	13-Jan-23	13-Jan-23	**0.40 mg/l**	
Nitrite as N	EPA 353.2	AA31310	0.05	13-Jan-23	13-Jan-23	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AA31619	0.20	16-Jan-23	17-Jan-23	**0.94 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 2/7/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0340

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - A
Address:	9297 Research Drive Irvine CA 92618	Sampled by: Ervin Tucker Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/10/23	10:40am	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	
	1/10/23	10:40am	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
	1/10/23	10:40am	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 10 2023
By Alex Walker Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	1/10/23	10:53am
Received by	MARIO SANTIESTEBAN (PCL)	1/10/23	1400
Relinquished by	MARIO SANTIESTEBAN (PCL)	1/10/23	1630
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr.	JAN 10 2023	1630

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 18-Jan-23 11:53
Subject: (MCC) Weekly EFF B

Project/P.O.#: (MCC) Weekly EFF B

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0361-01) Collected: 10-Jan-23 By ET of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AA31209	2	12-Jan-23	17-Jan-23	**<2 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 1/18/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (805) 532-0012
Fax (805) 532-0016

Environmental Sample

Sample I.D.#: 23A0361

Customer: IPC, Inc.		Project: MCC Weekly EFF - B	
Address: 9297 Research Drive		Sampled by: Ervin Tucker	P.O. #:
Irvine, CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: (949) 382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/10/23	23:59	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1L P	4° C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 11 2023
By Alex Walker Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by: E Ruiz	Ervin Tucker (IPC)	1/11/23	1:00pm
Received by: Mario Santiesteban	MARIO SANTIESTEBAN (PCL)	1/11/23	1351
Relinquished by: Mario Santiesteban	MARIO SANTIESTEBAN (PCL)	1/11/23	1530
Received by:			
Relinquished by			
Received by: Alex Walker Jr.	Alex Walker JR JAN 11 2023		1530

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO - Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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(818) 639-5300 ph
(818) 639-5306 fx
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Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 04-Feb-23 11:38
Subject: (MCC) Weekly EFF A

Project/P.O.#: (MCC) Weekly EFF A

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0570-01) Collected: 17-Jan-23 By KV of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AA32329	1	23-Jan-23	23-Jan-23	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AA32436	0.10	24-Jan-23	25-Jan-23	**<0.10 mg/l**	
Nitrate as N	EPA 353.2	AA31825	0.10	18-Jan-23	18-Jan-23	**1.64 mg/l**	
Nitrite as N	EPA 353.2	AA31825	0.05	18-Jan-23	18-Jan-23	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AA33020	0.20	30-Jan-23	31-Jan-23	**1.04 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,

Stephen Sakai 2/4/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0570

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - A
Address:	9297 Research Drive	Sampled by:	Kyle Vardel
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/17/23	1050	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	
	"	"	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
	"	"	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 17 2023
By Alex Walk Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by	Kyle Vardel (IPC)	1/17/23	1100
Received by	Edwin Gonzalez	1/17/23	12:32
Relinquished by	Edwin Gonzalez	1/17/23	14:40
Received by			
Relinquished by			
Received in lab by	Alex Walk Jr. JAN 17 2023		1440

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid Al - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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(818) 639-5306 fx
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Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 25-Jan-23 14:51
Subject: (MCC) Weekly EFF B

Project/P.O.#: (MCC) Weekly EFF B

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0625-01) Collected: 17-Jan-23 By ET of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AA31910	2	19-Jan-23	25-Jan-23	**<2 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 1/25/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0625

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly EFF - B	
Address: 9297 Research Drive		Sampled by: Ervin Tucker	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/17/23	23:59	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

RECEIVED
JAN 18 2023
BY

Signature	Print Name (Company)	Date	Time
Relinquished by:	Ervin Tucker (IPC)	1/18/23	11:25am
Received by:	MARIO SANTIESTEBAN (PCL)	1/18/23	1300
Relinquished by:	MARIO SANTIESTEBAN (PCL)	1/18/23	1620
Received by:			
Relinquished by:			
Received in lab by:		JAN 18 2023	1620

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4
Matrix AQ - Water SO - Soil / Sludge OT - Other	HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	AA - Ascorbic Acid Al - $AlCl_3$ Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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LABORATORIES

QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 20-Feb-23 09:20
Subject: (MCC) Weekly EFF A

Project/P.O.#: (MCC) Weekly EFF A

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0871-01) Collected: 24-Jan-23 By CA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AB30126	1	28-Jan-23	02-Feb-23	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AA33022	0.10	30-Jan-23	03-Feb-23	**<0.10 mg/l**	
Nitrate as N	EPA 353.2	AA32609	0.25	26-Jan-23	27-Jan-23	**2.26 mg/l**	
Nitrite as N	EPA 353.2	AA32609	0.05	26-Jan-23	27-Jan-23	**0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AB30206	0.20	02-Feb-23	02-Feb-23	**0.50 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,

Stephen Sakai 2/20/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0871

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :** (MCC) Weekly EFF - A	
Address: 9297 Research Drive Irvine CA 92618	**Sampled by:** Carlos Alvarez **Report Attention:** Ric Vardel / Golan Kfir	**P.O. #:** **Phone #:** 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	01/24/23	1150	1	TSS	Grab	AQ	1-Liter Plastic	4°C	
			1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
			1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 24 2023
By

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	01/24/23	1210
Received by		Juan D. (PCL)	1/24/23	1400
Relinquished by		Juan D. (PCL)	1/24/23	1600
Received by				
Relinquished by				
Received in lab by		Alex Walker JAN 24 2023		1600

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Matrix	Bottle Type
Grab	AQ - Water	P - Plastic
Comp	SO -Soil / Sludge	G - Amber Glass
	OT - Other	VOA - 40 ml Vial
		Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

PAT-CHEM
LABORATORIES

QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 31-Jan-23 13:24
Subject: (MCC) Weekly EFF B

Project/P.O.#: (MCC) Weekly EFF B

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0910-01) Collected: 24-Jan-23 By CA of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AA32617	2	26-Jan-23	31-Jan-23	**<2 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 1/31/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0910

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Weekly EFF - B
Address:	9297 Research Drive	Sampled by:	Carlos Alvarez
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	01/24/23	2359	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

RECEIVED
JAN 25 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Carlos Alvarez (IPC)	01/25/23	1155
Received by	Kirbeck M. (GEL)	1/25/23	1450
Relinquished by	Kirbeck M. (GEL)	1/25/23	1620
Received by			
Relinquished by			
Received in lab by	Alex Valle JV	JAN 25 2023	1420

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? (Yes) No
Samples intact? (Yes) No
Samples properly preserved? (Yes) No
Samples in holding time? (Yes) No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4
Matrix AQ - Water SO - Soil / Sludge OT - Other	HN - HNO_3 HP - H_3PO_4 OH - NaOH
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	ST - Sodium Thiosulfate AA - Ascorbic Acid Al - $AlCl_3$ Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

PAT-CHEM
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QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 14-Feb-23 19:19
Subject: (MCC) Weekly EFF A

Project/P.O.#: (MCC) Weekly EFF A

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A1115-01) Collected: 31-Jan-23 By CA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AB30127	1	01-Feb-23	03-Feb-23	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AB30117	0.10	01-Feb-23	02-Feb-23	**0.10 mg/l**	
Nitrate as N	EPA 353.2	AB30626	0.05	06-Feb-23	08-Feb-23	**0.13 mg/l**	
Nitrite as N	EPA 353.2	AB30626	0.05	06-Feb-23	08-Feb-23	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AB31331	0.20	13-Feb-23	14-Feb-23	**0.80 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 2/14/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A1115

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - A
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Carlos Alvarez
		Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	01/31/23	1145	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	
"	"	"	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
"	"	"	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

RECEIVED
JAN 31 2023
BY

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (SAT)	01/31/23	1200
Received by		Edwin Gonzalez	1/31/23	13:30
Relinquished by		Edwin Gonzalez	1/31/23	15:50
Received by				
Relinquished by				
Received by		Alex Walton JAN	31 2023	1500

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4
Matrix AQ - Water SO - Soil / Sludge OT - Other	HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	AA - Ascorbic Acid Al - $AlCl_3$ Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

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QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 08-Feb-23 10:01
Subject: (MCC) Weekly EFF B

Project/P.O.#: (MCC) Weekly EFF B

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0066-01) Collected: 31-Jan-23 By ET of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AB30213	2	02-Feb-23	07-Feb-23	**3 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 2/8/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0066

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - B
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	1/31/23	23:59	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 01 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by: EV	Ervin Tucker (IPC)	2/1/23	11:05am
Received by: EV	Edwin Gonzalez	2/1/23	12:50
Relinquished by: EV	Edwin Gonzalez	2/1/23	14:40
Received by			
Relinquished by			
Received in lab by	Alex Washburn FEB 01 2023		1440

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid Al - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

PAT-CHEM
LABORATORIES

QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 09-Mar-23 14:37
Subject: (MCC) Weekly EFF A

Project/P.O.#: (MCC) Weekly EFF A

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0428-01) Collected: 07-Feb-23 By ET of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AB31526	1	15-Feb-23	15-Feb-23	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AB32023	0.10	20-Feb-23	21-Feb-23	**0.14 mg/l**	
Nitrate as N	EPA 353.2	AB32238	0.05	22-Feb-23	03-Mar-23	**0.12 mg/l**	
Nitrite as N	EPA 353.2	AB32238	0.05	22-Feb-23	03-Mar-23	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AB32717	0.20	27-Feb-23	28-Feb-23	**2.30 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/9/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0428

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - A
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Ervin Tucker
		Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/7/23	11:01am	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	
EFF	2/7/23	11:01am	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
EFF	2/7/23	11:01am	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
FEB 07 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	2/7/23	11:57am
Received by	MARIO SANTIESTEBAN (PCL)	2/7/23	1340
Relinquished by	MARIO SANTIESTEBAN (PCL)	2/7/23	1630
Received by			
Relinquished by			
Received in lab by	Alex Werwon	FEB 07 2023	1630

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

PAT-CHEM
LABORATORIES

QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 14-Feb-23 19:22
Subject: (MCC) Weekly EFF B

Project/P.O.#: (MCC) Weekly EFF B

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0297-01) Collected: 07-Feb-23 By ET of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AB30923	2	09-Feb-23	14-Feb-23	**<2 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 2/14/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 2330297

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - B
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/2/23	23:59	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
FEB 08 2023
By Alex Walker Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	2/8/23	11:48am
Received by	MARIO SANTIESTEBAN (PCL)	2/8/23	1305
Relinquished by	MARIO SANTIESTEBAN (PCL)	2/8/23	1610
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr. FEB 08 2023		1610

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	(Yes)	No
Samples intact?	(Yes)	No
Samples properly preserved?	(Yes)	No
Samples in holding time?	(Yes)	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid Al - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

PAT-CHEM
LABORATORIES

QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 11-Mar-23 14:48
Subject: (MCC) Weekly EFF A

Project/P.O.#: (MCC) Weekly EFF A

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0452-01) Collected: 14-Feb-23 By DH of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AB31709	1	17-Feb-23	20-Feb-23	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AB32023	0.10	20-Feb-23	21-Feb-23	**0.13 mg/l**	
Nitrate as N	EPA 353.2	AB32238	0.25	22-Feb-23	03-Mar-23	**1.87 mg/l**	
Nitrite as N	EPA 353.2	AB32238	0.05	22-Feb-23	03-Mar-23	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AB32717	0.20	27-Feb-23	28-Feb-23	**1.35 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/11/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0452

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :** (MCC) Weekly EFF - A	
Address: 9297 Research Drive		**Sampled by:** Daniel Huey	**P.O. #:**
Irvine CA 92618		**Report Attention:** Ric Vardel / Golan Kfir	**Phone #:** 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/14/23	1100	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	
"	"	"	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
"	"	"	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

	Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel Huey	Daniel (IPC)	2/14/23	1140
Received by		MARIO SANTIESTEBAN (PCL)	2/14/23	1330
Relinquished by		MARIO SANTIESTEBAN (PCL)	2/14/23	1720
Received by				
Relinquished by				
Received in lab by		Alex Walton	2/14/23	1720

Sample Received Checklist

Temperature upon receipt: 4 °C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab **Comp**	**HC** - HCl **HS** - H_2SO_4
Matrix **AQ** - Water **SO** -Soil / Sludge **OT** - Other	**HN** - HNO_3 **HP** - H_3PO_4 **OH** - NaOH **ST** - Sodium Thiosulfate
Bottle Type **P** - Plastic **G** - Amber Glass **VOA** - 40 ml Vial **Coli** - bacteria	**AA** - Ascorbic Acid **Al** - $AlCl_3$ **Cu** - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

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QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 21-Feb-23 13:44
Subject: (MCC) Weekly EFF B

Project/P.O.#: (MCC) Weekly EFF B

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0480-01) Collected: 14-Feb-23 By ET of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AB31613	2	16-Feb-23	21-Feb-23	**<2 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 2/21/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0480

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC)** Weekly **EFF - B**
Address:	9297 Research Drive	Sampled by:	ERVIN TUCKER
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/14/23	23:59	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 15 2023
By Alex Walker Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by: ERVIN TUCKER	ERVIN TUCKER (IPC)	2/15/23	12:00pm
Received by: Richard M.	Richard M. (PCL)	2/15/23	1446
Relinquished by: Richard M.	Richard M. (PCL)	2/15/23	1625
Received by			
Relinquished by			
Received in lab by: Alex Walker Jr.	Alex Walker (PCL)	FEB 15 2023	1625

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid AI - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 05-Mar-23 13:26
Subject: (MCC) Weekly EFF A

Project/P.O.#: (MCC) Weekly EFF A

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0629-01) Collected: 21-Feb-23 By MA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AB32322	1	23-Feb-23	24-Feb-23	**1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AB32718	0.10	27-Feb-23	28-Feb-23	**0.14 mg/l**	
Nitrate as N	EPA 353.2	AC30208	0.05	02-Mar-23	02-Mar-23	**<0.05 mg/l**	
Nitrite as N	EPA 353.2	AC30208	0.05	02-Mar-23	02-Mar-23	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AC30310	0.20	03-Mar-23	04-Mar-23	**0.57 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/5/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0629

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly EFF - A	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Mario Aguirre Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/21/23	11:15	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	
"	"	"	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
"	"	"	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	

RECEIVED
FEB 2 1 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Mario Aguirre (IPC)	2/21/23	11:45
Received by		Richard M. (PCL)	2/21/23	1440
Relinquished by		Richard M. (PCL)	2/21/23	1615
Received by				
Relinquished by				
Received in lab by		Aleks Walk Jr. FEB 2 1 2023		1615

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 08-Mar-23 20:27
Subject: (MCC) Weekly EFF B

Project/P.O.#: (MCC) Weekly EFF B

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0657-01) Collected: 21-Feb-23 By JA of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AB32309	2	23-Feb-23	28-Feb-23	**2 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/8/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 2330657

Customer:	IPC - Integrated Performance Consultants, Inc.	**Project :**	**(MCC)** Weekly **EFF - B**
Address:	9297 Research Drive	**Sampled by:**	Jesus Avalos
	Irvine CA 92618	**Report Attention:**	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/21/23	11:59	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 22 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	2/21/23	11:59
Received by:	Richard M. (PC)	2/22/23	1405
Relinquished by:	Richard M. (PC)	2/22/23	1550
Received by:			
Relinquished by:			
Received in lab by:	Alex Warnick FEB 22 2023		1550

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab **Comp**	**HC** - HCl **HS** - H_2SO_4
Matrix **AQ** - Water **SO** -Soil / Sludge **OT** - Other	**HN** - HNO_3 **HP** - H_3PO_4 **OH** - NaOH **ST** - Sodium Thiosulfate
Bottle Type **P** - Plastic **G** - Amber Glass **VOA** - 40 ml Vial **Coli** - bacteria	**AA** - Ascorbic Acid **Al** - $AlCl_3$ **Cu** - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 11-Mar-23 12:26
Subject: (MCC) Weekly EFF A

Project/P.O.#: (MCC) Weekly EFF A

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0854-01) Collected: 28-Feb-23 By MA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AC30125	1	01-Mar-23	01-Mar-23	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AC30320	0.10	03-Mar-23	06-Mar-23	**0.38 mg/l**	
Nitrate as N	EPA 353.2	AC30318	0.25	03-Mar-23	03-Mar-23	**1.03 mg/l**	
Nitrite as N	EPA 353.2	AC30318	0.05	03-Mar-23	03-Mar-23	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AC30741	0.20	07-Mar-23	10-Mar-23	**1.87 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/11/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0854

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :** (MCC) Weekly EFF - A	
Address: 9257 Research Drive, Irvine, CA 92618	**Sampled by:** Mario Aguirre / Gelan Kfir	**P.O. #:**	949-382-9067
	Report Attention:	**Phone #:**	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/28/23	11:45	1	TSS	Grab	AQ	1-Liter Plastic	4°C	
"	"	"	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
"	"	"	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	

RECEIVED
FEB 28 2023
BY

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	2/28/23	12:12
Received by	MARIO SANTESTEBAN (PCL)	2/28/23	1400
Relinquished by	MARIO SANTESTEBAN (PCL)	2/28/23	1736
Received by			
Relinquished by			
Received in lab by	FEB 28 2023		1750

Sample Received Checklist

Temperature upon receipt: 4 °C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid Al - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 07-Mar-23 15:38
Subject: (MCC) Weekly EFF B

Project/P.O.#: (MCC) Weekly EFF B

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0051-01) Collected: 28-Feb-23 By DH of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AC30212	2	02-Mar-23	07-Mar-23	**<2 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/7/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 2300051

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC)** Weekly **EFF - B**
Address:	9297 Research Drive	Sampled by:	Daniel Huey
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/28/23	2359	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
MAR 0 1 2023
By Alex Walker Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Huey	Daniel (IPC)	3/1/23	1450
Received by:	Richard M. (PCL)	3/1/23	1400
Relinquished by:	Richard M. (PCL)	3/1/23	1535
Received by:			
Relinquished by:			
Received in lab by: Alex Walker Jr.	Alex Walker Jr. MAR	0 1 2023	1535

Sample Received Checklist

Temperature upon receipt: 4.0

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	HC - HCl
Comp	HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water	HP - H_3PO_4
SO -Soil / Sludge	OH - NaOH
OT - Other	ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic	Al - $AlCl_3$
G - Amber Glass	Cu -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 21-Mar-23 08:17
Subject: (MCC) Weekly EFF A

Project/P.O.#: (MCC) Weekly EFF A

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0353-01) Collected: 07-Mar-23 By DH of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AC31342	1	13-Mar-23	14-Mar-23	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AC31322	0.10	13-Mar-23	14-Mar-23	**0.22 mg/l**	
Nitrate as N	EPA 353.2	AC30922	1.00	09-Mar-23	10-Mar-23	**1.97 mg/l**	
Nitrite as N	EPA 353.2	AC30922	0.05	09-Mar-23	10-Mar-23	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AC31537	0.20	15-Mar-23	17-Mar-23	**<0.20 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/21/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0353

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC)** Weekly **EFF - A**
Address:	9297 Research Drive	Sampled by:	Daniel Huey
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/7/23	1050	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	
"	"	"	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
"	"	"	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Huey	Daniel (IPC)	3/7/23	1140
Received by:	MARIO SANTIESTEBAN (PCL)	3/7/23	1310
Relinquished by:	MARIO SANTIESTEBAN (PCL)	3/7/23	1455
Received by:			
Relinquished by:			
Received in lab by:	Cindy MARINEZ	3-7-23	1455

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 15-Mar-23 16:19
Subject: (MCC) Weekly EFF B

Project/P.O.#: (MCC) Weekly EFF B

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0423-01) Collected: 07-Mar-23 By IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AC31012	2	10-Mar-23	15-Mar-23	**<2 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/15/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0423

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - B
Address:	9297 Research Drive	Sampled by:	Daniel Huey
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/7/23	2359	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

	Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel Huey	Daniel (IPC)	3/8/23	1125
Received by		MARIO SANTIESTEBAN (PCL)	3/8/23	1410
Relinquished by				
Received by				
Relinquished by				
Received in lab by		Theresa T/PCL	3/8/23	16:00

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 26-Mar-23 16:27
Subject: (MCC) Weekly EFF A

Project/P.O.#: (MCC) Weekly EFF A

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0597-01) Collected: 14-Mar-23 By GF							
Physical Properties							
Total Suspended Solids	SM2540D	AC31710	1	17-Mar-23	20-Mar-23	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AC32020	0.10	20-Mar-23	21-Mar-23	**0.17 mg/l**	
Nitrate as N	EPA 353.2	AC31535	1.00	15-Mar-23	16-Mar-23	**0.99 mg/l**	
Nitrite as N	EPA 353.2	AC31535	0.05	15-Mar-23	16-Mar-23	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AC32251	0.20	22-Mar-23	25-Mar-23	**0.47 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/26/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0597

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - A
Address:	9297 Research Drive Irvine CA 92618	Sampled by: Golan Kfir Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/14/23	12:10	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	7.3 | 18.2
	"	"	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
	"	"	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by GK	Golan IPC	3/14/23	1330
Received by	Cindy M	3-14-23	1330
Relinquished by	Cindy M	3-14-23	1600
Received by			
Relinquished by			
Received in lab by	Theresa T. (PCL)	3/14/23	16:00

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

PAT-CHEM
LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 21-Mar-23 12:37
Subject: (MCC) Weekly EFF B

Project/P.O.#: (MCC) Weekly EFF B

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0685-01) Collected: 14-Mar-23 By IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AC31612	2	16-Mar-23	21-Mar-23	**<2 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/21/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0685

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC)** Weekly **EFF - B**
Address:	9297 Research Drive	Sampled by:	Carlos Alvarez
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	03/14/23	2359	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (Apc)	03/15/23	1150
Received by		MARIO SANTIESTEBAN (PCL)	3/15/23	1350
Relinquished by		MARIO SANTIESTEBAN (PCL)	3/15/23	1520
Received by				
Relinquished by				
Received in lab by		Theresa T. (PCL)	3/15/23	15:20

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 06-Apr-23 12:40
Subject: (MCC) Weekly EFF A

Project/P.O.#: (MCC) Weekly EFF A

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0937-01) Collected: 21-Mar-23 By Customer							
Physical Properties							
Total Suspended Solids	SM2540D	AC32236	1	22-Mar-23	23-Mar-23	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AC32721	0.10	27-Mar-23	28-Mar-23	**0.15 mg/l**	
Nitrate as N	EPA 353.2	AC32314	0.05	23-Mar-23	23-Mar-23	**0.04 mg/l**	
Nitrite as N	EPA 353.2	AC32314	0.05	23-Mar-23	23-Mar-23	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AC33120	0.20	31-Mar-23	06-Apr-23	**1.42 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,

Stephen Sakai 4/6/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0937

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - A
Address:	9297 Research Drive Irvine CA 92618	Sampled by: Daniel Huey Report Attention: Rio Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/21/23	0950	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	
"	"	"	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
"	"	"	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel (IPC)	3/21/23	1120
Received by	MARIO SANTIESTEBAN (PCL)	3/21/23	1325
Relinquished by	MARIO SANTIESTEBAN (PCL)	3/21/23	1600
Received by			
Relinquished by			
Received in lab by			

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab **Comp**	**HC** - HCl **HS** - H_2SO_4
Matrix **AQ** - Water **SO** -Soil / Sludge **OT** - Other	**HN** - HNO_3 **HP** - H_3PO_4 **OH** - NaOH **ST** - Sodium Thiosulfate
Bottle Type **P** - Plastic **G** - Amber Glass **VOA** - 40 ml Vial **Coli** - bacteria	**AA** - Ascorbic Acid **Al** - $AlCl_3$ **Cu** -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 29-Mar-23 12:50
Subject: (MCC) Weekly EFF B

Project/P.O.#: (MCC) Weekly EFF B

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0969-01) Collected: 21-Mar-23 By IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AC32310	2	23-Mar-23	28-Mar-23	**<2 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/29/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0969

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - B
Address:	9297 Research Drive	Sampled by:	Mario Aguirre
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/21/23	23:59	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	3/22/23	11:20
Received by	MARJS SANTIESTEBAN (PCL)	3/22/23	1450
Relinquished by	MARJS SANTIESTEBAN (PCL)	3/22/23	1600
Received by			
Relinquished by			
Received in lab by			

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Matrix	Bottle Type	Preservations
Grab	AQ - Water	P - Plastic	HC - HCl
Comp	SO - Soil / Sludge	G - Amber Glass	HS - H_2SO_4
	OT - Other	VOA - 40 ml Vial	HN - HNO_3
		Coli - bacteria	HP - H_3PO_4
			OH - NaOH
			ST - Sodium Thiosulfate
			AA - Ascorbic Acid
			Al - $AlCl_3$
			Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 19-Apr-23 12:22
Subject: (MCC) Weekly EFF A

Project/P.O.#: (MCC) Weekly EFF A

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C1156-01) Collected: 28-Mar-23 By Customer							
Physical Properties							
Total Suspended Solids	SM2540D	AC32928	1	29-Mar-23	29-Mar-23	**1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AD30314	0.10	03-Apr-23	04-Apr-23	**0.49 mg/l**	
Nitrate as N	EPA 353.2	AC32937	1.00	29-Mar-23	30-Mar-23	**1.17 mg/l**	
Nitrite as N	EPA 353.2	AC32937	0.05	29-Mar-23	30-Mar-23	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AD31025	0.20	10-Apr-23	12-Apr-23	**1.33 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 4/19/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C1156

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - A
Address:	9297 Research Drive	Sampled by:	Daniel Huey
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/28/23	1110	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	
	"	"	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
"	"	"	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

	Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel Huey	Daniel (IPC)	3/28/23	1200
Received by		MARIO SANTIESTEBAN (PCL)	3/28/23	1450
Relinquished by		MARIO SANTIESTEBAN (PCL)	3/28/23	1655
Received by				
Relinquished by				
Received in lab by				

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 06-Apr-23 12:44
Subject: (MCC) Weekly EFF B

Project/P.O.#: (MCC) Weekly EFF B

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C1204-01) Collected: 28-Mar-23 By IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AC33014	2	30-Mar-23	04-Apr-23	**<2 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 4/6/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C1204

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly EFF - B	
Address: 9297 Research Drive		Sampled by: Ervin Tucker	P.O. #:
Irvine	CA 92618	Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/28/23	23:59	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	3/29/23	11:15am
Received by	MARIO SANTIESTEBAN (PCL)	3/29/23	1110
Relinquished by	MARIO SANTIESTEBAN (PCL)	3/29/23	1555
Received by			
Relinquished by			
Received in lab by			

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 11-Jan-23 17:34
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 23A0132-01) Collected: 04-Jan-23 By DH of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AA30935	1	09-Jan-23	10-Jan-23	**91 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AA30611	2	06-Jan-23	11-Jan-23	**187 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 1/11/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0132

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :** (MCC) ~~Weekly~~ INF	
Address: 9297 Research Drive Irvine CA 92618	**Sampled by:** Daniel Huey / ~~Ric Vardel / Golan Kfir~~ **Report Attention:**	**P.O. #:** **Phone #:** 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: **Field** **Lab**
INF	1/4/23	2359	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
"	"	"	1	BOD	Comp	AQ	1-Liter Plastic	4°C	

RECEIVED
JAN 05 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Huey	Daniel (IPC)	1/5/23	1215
Received by:	Juan D (PCL)	1/5/23	13:03
Relinquished by:	Juan D. (PCL)	1/5/23	15:55
Received by:			
Relinquished by:			
Received in lab by:	Alex Warrington JAN 05 2023		15:55

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	(Yes)	No
Samples intact?	(Yes)	No
Samples properly preserved?	(Yes)	No
Samples in holding time?	(Yes)	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab **Comp**	**HC** - HCl **HS** - H_2SO_4 **HN** - HNO_3 **HP** - H_3PO_4 **OH** - NaOH **ST** - Sodium Thiosulfate **AA** - Ascorbic Acid **Al** - $AlCl_3$ **Cu** - $CuSO_4$
Matrix **AQ** - Water **SO** - Soil / Sludge **OT** - Other	
Bottle Type **P** - Plastic **G** - Amber Glass **VOA** - 40 ml Vial **Coli** - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 18-Jan-23 14:53
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 23A0360-01) Collected: 10-Jan-23 By ET of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AA31723	1	17-Jan-23	18-Jan-23	**167 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AA31209	2	12-Jan-23	17-Jan-23	**160 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 1/18/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0360

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly INF	
Address: 9297 Research Drive, Irvine, CA 92618		Sampled by: Ervin Tucker / Ric Vardel / Golan Kfir	P.O. #: 949-382-9067
		Report Attention:	Phone #:

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
INF	1/11/23	23:59	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
	1/11/23	23:59	1	BOD	Comp	AQ	1-Liter Plastic	4°C	

RECEIVED
JAN 11 2023
By Alex Walton Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Ervin Tucker	1/11/23	1:00pm
Received by		MARIO SANTIESTEBAN (PCL)	1/11/23	1548
Relinquished by		MARIO SANTIESTEBAN (PCL)	1/11/23	1530
Received by				
Relinquished by				
Received in lab by		Alex Walton Jr.	JAN 11 2023	1530

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid AI - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
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Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 25-Jan-23 14:50
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 23A0624-01) Collected: 17-Jan-23 By ET of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AA32441	1	24-Jan-23	25-Jan-23	**176 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AA31910	2	19-Jan-23	25-Jan-23	**287 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 1/25/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 2340624

Customer: IPC - Integrated Performance Consultants, Inc.		Project: (MCC) Weekly INF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Ervin Tucker Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
INF	1/17/23	23:59	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
INF	1/17/23	23:59	1	BOD	Comp	AQ	1-Liter Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

RECEIVED
JAN 18 2023

Signature	Print Name (Company)	Date	Time
Relinquished by:	Ervin Tucker (IPC)	1/18/23	11:25am
Received by:	MARIO SANTIESTEBAN (PCL)	1/18/23	1300
Relinquished by:	MARIO SANTIESTEBAN (PCL)	1/18/23	1620
Received by:			
Relinquished by:			
Received in lab by:	Alex Ward Jr. JAN 18 2023		1620

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4
Matrix	HN - HNO_3
AQ - Water SO - Soil / Sludge OT - Other	HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate
Bottle Type	AA - Ascorbic Acid
P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	Al - $AlCl_3$ Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

PAT-CHEM
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QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 03-Feb-23 08:56
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 23A0912-01) Collected: 24-Jan-23 By CA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AB30126	1	28-Jan-23	02-Feb-23	**192 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AA32617	2	26-Jan-23	31-Jan-23	**172 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 2/3/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0912

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :** (MCC) Weekly INF	
Address: 9297 Research Drive		**Sampled by:** Carlos Alvarez	
Irvine	CA 92618	**Report Attention:** Ric Vardel / Golan Kfir	**P.O. #:**
			Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
INF	01/24/23	2359	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
	1	1	1	BOD	Comp	AQ	1-Liter Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 25 2023
BY

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	01/25/23	1155
Received by		Kirkland M. (PCL)	1/25/23	1450
Relinquished by		Kirkland M. (PCL)	1/25/23	1620
Received by				
Relinquished by				
Received in lab by		Alex Warmack JAN 25 2023		1620

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 15-Feb-23 16:24
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 23B0069-01) Collected: 31-Jan-23 By ET of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AB31434	1	14-Feb-23	15-Feb-23	**98 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AB30213	2	02-Feb-23	07-Feb-23	**238 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 2/15/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0069

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly INF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Erwin Tucker Report Attention: Ric Vardel / Golan Kfir	P.O. #: Phone #: 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
INF	1/31/23	23:59	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
INF	1/31/23	23:59	1	BOD	Comp	AQ	1-Liter Plastic	4°C	
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 01 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Erwin Tucker (IPC)	2/1/23	11:05am
Received by	Edwin Gonzalez	2/1/23	12:50
Relinquished by	Edwin Gonzalez	2/1/23	14:40
Received by			
Relinquished by			
Received in lab by	Alex Wallin FEB 0 1 2023		1440

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab **Comp**	**HC** - HCl **HS** - H_2SO_4 **HN** - HNO_3 **HP** - H_3PO_4 **OH** - NaOH **ST** - Sodium Thiosulfate **AA** - Ascorbic Acid **Al** - $AlCl_3$ **Cu** - $CuSO_4$
Matrix **AQ** - Water **SO** - Soil / Sludge **OT** - Other	
Bottle Type **P** - Plastic **G** - Amber Glass **VOA** - 40 ml Vial **Coli** - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 16-Feb-23 10:30
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 23B0298-01) Collected: 07-Feb-23 By ET of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AB31526	1	15-Feb-23	15-Feb-23	**119 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AB30923	2	09-Feb-23	14-Feb-23	**259 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 2/16/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0298

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :** (MCC) Weekly INF	
Address: 9297 Research Drive, Irvine, CA 92618		**Sampled by:** Ervin Tucker	**P.O. #:**
		Report Attention: Ric Vardel / Golan Kfir	**Phone #:** 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
INF	2/7/23	23:59	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
INF	2/7/23	23:59	1	BOD	Comp	AQ	1-Liter Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
FEB 08 2023
By Alex Walker Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	2/8/23	11:48am
Received by	MARIO SANTIESTEBAN (PCL)	2/8/23	1305
Relinquished by	MARIO SANTIESTEBAN (PCL)	2/9/23	1610
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr.	FEB 08 2023	1610

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab Comp	HC - HCl HS - H_2SO_4 HN - HNO_3 HP - H_3PO_4 OH - NaOH ST - Sodium Thiosulfate AA - Ascorbic Acid AI - $AlCl_3$ Cu - $CuSO_4$
Matrix AQ - Water SO - Soil / Sludge OT - Other	
Bottle Type P - Plastic G - Amber Glass VOA - 40 ml Vial Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 21-Feb-23 15:12
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 23B0483-01) Collected: 14-Feb-23 By ET of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AB31709	1	17-Feb-23	20-Feb-23	**96 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AB31613	2	16-Feb-23	21-Feb-23	**151 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 2/21/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (805) 532-0012
Fax (805) 532-0016

Environmental Sample

Sample I.D.#: 23B0483

Customer: IPC, Inc.		Project: MCC Weekly INF	
Address: 9297 Research Drive		Sampled by: Ervin Tucker	P.O. #:
Irvine, CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: (949) 382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
INF	2/14/23	23:59	1	TSS	Comp	AQ	1-L	4° C	
INF	2/14/23	23:59	1	BOD	Comp	AQ	1-L	4° C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
FEB 15 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by:	Ervin Tucker	2/15/23	12:00pm
Received by	Richard M. (PCL)	2/15/23	1446
Relinquished by	Richard M. (PCL)	2/15/23	1625
Received by			
Relinquished by			
Received in Lab by	Alex Valmont (PCL)	FEB 15 2023	1625

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO - Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 08-Mar-23 20:29
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 23B0658-01) Collected: 21-Feb-23 By JA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AB32322	1	23-Feb-23	24-Feb-23	**278 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AB32309	2	23-Feb-23	28-Feb-23	**376 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/8/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 2330658

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly INF	
Address: 9297 Research Drive		Sampled by: Jesus Avalos	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
INF	2/21/23	11:59	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
〃	〃	〃	1	BOD	Comp	AQ	1-Liter Plastic	4°C	
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

RECEIVED
FEB 22 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	2/21/23	11:59
Received by:	Richard M. (PCL)	2/22/23	1405
Relinquished by:	Richard M. (PCL)	2/22/23	1550
Received by:			
Relinquished by:			
Received in lab by:	FEB 22 2023		1550

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 07-Mar-23 15:39
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 23C0052-01) Collected: 28-Feb-23 By DH of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AC30206	1	02-Mar-23	02-Mar-23	**138 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AC30212	2	02-Mar-23	07-Mar-23	**210 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/7/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0052

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly INF
Address:	9297 Research Drive	Sampled by:	Daniel Huey
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
INF	2/28/23	2359 DH	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
"	"	"	1	BOD	Comp	AQ	1-Liter Plastic	4°C	

RECEIVED
MAR 0 1 2023
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel Huey	Daniel (IPC)	3/1/23	1150
Received by		Richard M. (PCL)	3/1/23	1400
Relinquished by		Richard M. (PCL)	3/1/23	1535
Received by				
Relinquished by				
Received in lab by		Alex Walker Jr. MAR 0 1 2023		1535

Sample Received Checklist

Temperature upon receipt: 4 °C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 15-Mar-23 16:20
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 23C0421-01) Collected: 07-Mar-23 By IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AC31329	1	13-Mar-23	14-Mar-23	**218 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AC31012	2	10-Mar-23	15-Mar-23	**85 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/15/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 2304921

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly INF	
Address: 9297 Research Drive		Sampled by: Daniel Huey	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
INF	3/7/23	2359	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
u	u	u	1	BOD	Comp	AQ	1-Liter Plastic	4°C	

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel (IPC)	3/8/23	1125
Received by	MARIO SANTIESTEBAN (PCL)	3/8/23	1410
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Theresa T (PCL)	3/8/23	16:00

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 21-Mar-23 12:38
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 23C0687-01) Collected: 14-Mar-23 By IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AC31720	1	17-Mar-23	20-Mar-23	**133 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AC31612	2	16-Mar-23	21-Mar-23	**261 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 3/21/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0687

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly INF	
Address: 9297 Research Drive		Sampled by: Carlos Alvarez	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
INF	03/14/23	2359	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
"	"	"	1	BOD	Comp	AQ	1-Liter Plastic	4°C	
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	Carlos Alvarez (IPC)	03/15/23	11:50
Received by	MARIO SANTIESTEBAN (PCL)	3/15/23	1340
Relinquished by	MARIO SANTIESTEBAN (PCL)	3/15/23	1520
Received by			
Relinquished by			
Received in lab by	Theresa T. (PCL)	3/15/23	15:20

Sample Received Checklist

Temperature upon receipt: _____
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu - $CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

PAT-CHEM
LABORATORIES

QUALITY ANALYTICAL SERVICES SINCE 1987

1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 29-Mar-23 12:51
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 23C0970-01) Collected: 21-Mar-23 By IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AC32309	1	23-Mar-23	23-Mar-23	**152 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AC32310	2	23-Mar-23	28-Mar-23	**85 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,

Stephen Sakai 3/29/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0970

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly INF	
Address: 9297 Research Drive		Sampled by: Mario Aguirre	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
INF	3/21/23	23:59	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
"	"	"	1	BOD	Comp	AQ	1-Liter Plastic	4°C	
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

	Signature	Print Name (Company)	Date	Time
Relinquished by		Mario Aguirre (IPC)	3/22/23	11:20
Received by		MARIO SANTIESTEBAN (PCL)	3/22/23	1450
Relinquished by		MARIO SANTIESTEBAN (PCL)	3/22/23	1600
Received by				
Relinquished by				
Received in lab by				

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
Al - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 06-Apr-23 12:46
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 23C1205-01) Collected: 28-Mar-23 By IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AC33006	1	30-Mar-23	30-Mar-23	**177 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AC33014	2	30-Mar-23	04-Apr-23	**281 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,



Stephen Sakai 4/6/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C ~~0328~~ 1205 MS

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly INF
Address:	9297 Research Drive	Sampled by:	Ervin Tucker
	Irvine CA 92618	Report Attention:	Ric Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
INF	3/28/23	23:59	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
INF	3/28/23	23:59	1	BOD	Comp	AQ	1-Liter Plastic	4°C	
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	3/29/23	11:15am
Received by	MARIO SANTIESTEBAN (PCL)	3/29/23	1410
Relinquished by	MARIO SANTIESTEBAN (PCL)	3/29/23	1550
Received by			
Relinquished by			
Received in lab by			

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 23-Feb-23 09:49
Subject: (MCC) Monthly EFF

Project/P.O.#: (MCC) Monthly EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23A0872-01) Collected: 24-Jan-23 By C.A. of IPC							
Physical Properties							
Total Dissolved Solids	SM 2540C	AA32707	5	27-Jan-23	31-Jan-23	**1228 mg/l**	
Inorganic Constituents							
Chloride	EPA 300.0	AA32708	20.0	27-Jan-23	27-Jan-23	**211 mg/l**	
Sulfate as SO4	EPA 300.0	AA32708	10.0	27-Jan-23	27-Jan-23	**371 mg/l**	
Boron	EPA 200.7	AA33126	0.10	31-Jan-23	02-Feb-23	**0.36 mg/l**	
Phosphorus, Total as P	EPA 365.3	AA33135	0.10	31-Jan-23	02-Feb-23	**0.41 mg/l**	
Aggregate Organic Constituents							
MBAS	SM 5540 C	AA32615	0.20	26-Jan-23	26-Jan-23	**<0.20 mg/l**	
Oil & Grease (HEM)	EPA 1664A	AB32231	5	22-Feb-23	23-Feb-23	**<5 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,

Stephen Sakai 2/23/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23A0872

Customer: IPC - Integrated Performance Consultants, Inc.		**Project:** (MCC) Monthly - EFF	
Address: 9297 Research Drive Irvine CA 92618	**Sampled by:** C.A.	**P.O. #:**	
	Report Attention: Ric Vardel / Golan Kfir	**Phone #:** 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	01/24/23	1150	1	SO4,Cl,TDS	Grab	AQ	1/2gal Plastic	4°C	
			1	MBAS	Grab	AQ	500ml Plastic	4°C	
			1	Oil & Grease	Grab	AQ	1-Liter Amber	4°C, HCl	
			1	Boron	Grab	AQ	250ml Plastic	4°C, HNO	
			1	T.Phos	Grab	AQ	500ml Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
JAN 24 2023
By

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	01/24/23	1210
Received by		Juan D. (PLC)	01/24/23	1400
Relinquished by		Juan D. (PLC)	1/24/23	1600
Received by				
Relinquished by				
Received in lab by		Alex Ha	JAN 24 2023	1600

Sample Received Checklist

Temperature upon receipt: 4° C

# of bottles agrees with COC? Yes No

Samples intact? Yes No

Samples properly preserved? Yes No

Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab **Comp**	**HC** - HCl **HS** - H_2SO_4
Matrix **AQ** - Water **SO** -Soil / Sludge **OT** - Other	**HN** - HNO_3 **HP** - H_3PO_4 **OH** - NaOH **ST** - Sodium Thiosulfate
Bottle Type **P** - Plastic **G** - Amber Glass **VOA** - 40 ml Vial **Coli** - bacteria	**AA** - Ascorbic Acid **AI** - $AlCl_3$ **Cu** -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 24-Feb-23 12:19
Subject: (MCC) Monthly EFF

Project/P.O.#: (MCC) Monthly EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0248-01) Collected: 07-Feb-23 By ET of IPC							
Physical Properties							
Total Dissolved Solids	SM 2540C	AB30906	5	09-Feb-23	13-Feb-23	**1004 mg/l**	
Inorganic Constituents							
Chloride	EPA 300.0	AB30831	20.0	08-Feb-23	14-Feb-23	**182 mg/l**	
Sulfate as SO4	EPA 300.0	AB30831	10.0	08-Feb-23	14-Feb-23	**246 mg/l**	
Boron	EPA 200.7	AB31523	0.10	15-Feb-23	21-Feb-23	**0.28 mg/l**	
Phosphorus, Total as P	EPA 365.3	AB31014	0.10	10-Feb-23	10-Feb-23	**0.24 mg/l**	
Aggregate Organic Constituents							
MBAS	SM 5540 C	AB30920	0.20	09-Feb-23	09-Feb-23	**<0.20 mg/l**	
Oil & Grease (HEM)	EPA 1664A	AB32245	5	22-Feb-23	23-Feb-23	**<5 mg/l**	

Notes and Definitions

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,

Stephen Sakai 2/24/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0248

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Monthly - EFF	
Address: 9297 Research Drive		Sampled by: Ervin Tucker	P.O. #:
Irvine CA 92618		Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/7/23	10:58am	1	SO4,Cl,TDS	Grab	AQ	1/2gal Plastic	4°C	
EFF	2/7/23	10:58am	1	MBAS	Grab	AQ	500ml Plastic	4°C	
EFF	2/7/23	10:58am	1	Oil & Grease	Grab	AQ	1-Liter Amber	4°C, HCl	
EFF	2/7/23	10:58am	1	Boron	Grab	AQ	250ml Plastic	4°C, HNO	
EFF	2/7/23	10:58am	1	T.Phos	Grab	AQ	500ml Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
FEB 07 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	ERVIN TUCKER (IPC)	2/7/22	11:57am
Received by	MARIO SANTIESTEBAN (PCL)	2/7/23	1340
Relinquished by	MARIO SANTIESTEBAN (PCL)	2/7/23	1630
Received by			
Relinquished by			
Received in lab by	Alex Warnick	FEB 07 2023	1630

Sample Received Checklist

Temperature upon receipt: 4°C
# of bottles agrees with COC? Yes No
Samples intact? Yes No
Samples properly preserved? Yes No
Samples in holding time? Yes No

Compliance Monitor

Initial Flow _____
Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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(818) 639-5300 ph
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pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 21-Mar-23 08:22
Subject: (MCC) Monthly EFF

Project/P.O.#: (MCC) Monthly EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23C0424-01) Collected: 08-Mar-23 By IPC							
Physical Properties							
Total Dissolved Solids	SM 2540C	AC31124	5	11-Mar-23	12-Mar-23	**1088 mg/l**	
Inorganic Constituents							
Chloride	EPA 300.0	AC31016	25.0	10-Mar-23	13-Mar-23	**188 mg/l**	
Sulfate as SO4	EPA 300.0	AC31016	12.5	10-Mar-23	13-Mar-23	**416 mg/l**	
Boron	EPA 200.7	AC31416	0.50	14-Mar-23	15-Mar-23	**0.50 mg/l**	
Phosphorus, Total as P	EPA 365.3	AC31336	0.10	13-Mar-23	14-Mar-23	**0.12 mg/l**	
Aggregate Organic Constituents							
MBAS	SM 5540 C	AC30919	0.20	09-Mar-23	09-Mar-23	**0.06 mg/l**	
Oil & Grease (HEM)	EPA 1664A	AC31546	5	15-Mar-23	16-Mar-23	**<5 mg/l**	

Notes and Definitions

J Detected but below the method reporting limit (RL); therefore, result is an estimated concentration. Result is between the RL and method detection limit (MDL). (CLP J-flag)

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,

Stephen Sakai 3/21/2023
Lab Director

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23C0424

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) EFF - Monthly	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Daniel Huey	P.O. #:	
	Report Attention: Ric Vardel / Golan Kfir	Phone #: 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	3/8/23	1050	1	Sulfate, Chloride, TDS	Grab	AQ	1/2 Gal. P	4°C	
			1	MBAS	Grab	AQ	500 P	4°C	
			1	Oil & Grease	Grab	AQ	1L G	HC	
			1	Boron	Grab	AQ	250 P	HN	
			1	T.Phos	Grab	AQ	500 P	4°C	
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel (IPC)	3/8/23	1125
Received by	MARIO SANTIESTEBAN (PCL)	3/9/23	1410
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Theresa T. (PCL)	3/8/23	16:00

Sample Received Checklist

Temperature upon receipt: _____

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type
Grab
Comp

Matrix
AQ - Water
SO -Soil / Sludge
OT - Other

Bottle Type
P - Plastic
G - Amber Glass
VOA - 40 ml Vial
Coli - bacteria

Preservations
HC - HCl
HS - H_2SO_4
HN - HNO_3
HP - H_3PO_4
OH - NaOH
ST - Sodium Thiosulfate
AA - Ascorbic Acid
AI - $AlCl_3$
Cu -$CuSO_4$

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

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San Fernando, CA 91340
(818) 639-5300 ph
(818) 639-5306 fx
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Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 28-Apr-23 09:41
Subject: (MCC) Quarterly EFF

Project/P.O.#: (MCC) Quarterly EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0260-01) Collected: 07-Feb-23 By MA of IPC							
Physical Properties							
Total Alkalinity as CaCO3	SM 2320B	AB30905	1	09-Feb-23	09-Feb-23	**220 mg/l**	
Carbonate Alkalinity as CaCO3	SM 2320B	AB30905	1	09-Feb-23	09-Feb-23	**<1 mg/l**	
Bicarbonate Alkalinity as CaCO3	SM 2320B	AB30905	1	09-Feb-23	09-Feb-23	**220 mg/l**	
Hydroxide Alkalinity as CaCO3	SM 2320B	AB30905	1	09-Feb-23	09-Feb-23	**<1 mg/l**	
Color	SM 2120 C	AB30824	5.0	08-Feb-23	08-Feb-23	**18.8 CU**	
Conductivity	SM 2510B	AB31321	1.0	13-Feb-23	13-Feb-23	**40.9 uS/cm**	
Specific Conductance (EC)	SM 2510B	AB31321	2.0	13-Feb-23	13-Feb-23	**40.9 uS/cm**	
Corrosivity-Langlier Index	CALCN	AD32809	0.100	07-Feb-23	07-Feb-23	**0.140 ---**	A-01
Odor	SM 2150B	AB30907	1	09-Feb-23	09-Feb-23	**<1 T.O.N.**	
Temperature	SM 2550	AB30919		07-Feb-23	07-Feb-23	**70 °F**	
Inorganic Constituents							
Silver	EPA 200.8	AB31332	0.2	13-Feb-23	16-Feb-23	**<0.2 ug/l**	
Aluminum	EPA 200.8	AB31332	5.0	13-Feb-23	16-Feb-23	**25.8 ug/l**	
Fluoride	EPA 300.0	AB30831	0.50	08-Feb-23	14-Feb-23	**1.25 mg/l**	
Arsenic	EPA 200.8	AB31332	0.2	13-Feb-23	16-Feb-23	**0.9 ug/l**	
Barium	EPA 200.8	AB31332	0.5	13-Feb-23	16-Feb-23	**41 ug/l**	
Beryllium	EPA 200.8	AB31332	0.2	13-Feb-23	16-Feb-23	**<0.2 ug/l**	
Calcium	EPA 200.7	AB31333	0.10	13-Feb-23	16-Feb-23	**61.5 mg/l**	
Cadmium	EPA 200.8	AB31332	0.2	13-Feb-23	16-Feb-23	**<0.2 ug/l**	
Chromium - Total	EPA 200.8	AB31332	0.2	13-Feb-23	16-Feb-23	**4.1 ug/l**	
Copper	EPA 200.8	AB31332	0.2	13-Feb-23	16-Feb-23	**0.6 ug/l**	
Cyanide (total)	SM 4500-CN-E	AB30826	0.004	08-Feb-23	08-Feb-23	**0.006 mg/l**	
Iron	EPA 200.7	AB31333	0.02	13-Feb-23	16-Feb-23	**0.04 mg/l**	
Mercury	EPA 245.1	AB31329	0.50	13-Feb-23	14-Feb-23	**<0.50 ug/l**	
Manganese	EPA 200.8	AB31332	0.5	13-Feb-23	16-Feb-23	**57 ug/l**	
pH	SM 4500H-B	AB30919	0.1	07-Feb-23	07-Feb-23	**7.6 pH Units**	

Respectfully Submitted,

DRAFT REPORT 4/28/2023
DATA SUBJECT TO CHANGE

PAT-CHEM LABORATORIES
QUALITY ANALYTICAL SERVICES SINCE 1987
1824 1st Street
San Fernando, CA 91340
(818) 639-5300 ph
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pat-chem.com

Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 28-Apr-23 09:41
Subject: (MCC) Quarterly EFF

Project/P.O.#: (MCC) Quarterly EFF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 23B0260-01) Collected: 07-Feb-23 By MA of IPC							
Inorganic Constituents							
Antimony	EPA 200.8	AB31332	1.0	13-Feb-23	16-Feb-23	**0.9 ug/l**	
Selenium	EPA 200.8	AB31332	2.0	13-Feb-23	16-Feb-23	**2.8 ug/l**	
Thallium	EPA 200.8	AB31332	1.0	13-Feb-23	16-Feb-23	**<1.0 ug/l**	
Uranium	EPA 200.8	AB31332	1.0	13-Feb-23	16-Feb-23	**1.8 pCi/L**	
Zinc	EPA 200.8	AB31332	1.0	13-Feb-23	16-Feb-23	**24.0 ug/l**	
Aggregate Organic Constituents							
MBAS	SM 5540 C	AB30920	0.20	09-Feb-23	09-Feb-23	**0.06 mg/l**	
Disinfection Byproducts							
Bromate	EPA 300.1	AB31706	10.0	17-Feb-23	18-Feb-23	**<10.0 ug/l**	
Surrogate: Dichloroacetate	EPA 300.1	AB31706		17-Feb-23	18-Feb-23		
Chlorite	EPA 300.1	AB31706	20.0	17-Feb-23	18-Feb-23	**36.4 ug/l**	
Surrogate: Dichloroacetate	EPA 300.1	AB31706		17-Feb-23	18-Feb-23		

Notes and Definitions

A-01 Slightly scale forming and corrosive.

RL Reporting Limit - The lowest amount of a constituent that can be reliably quantified and reported.

Respectfully Submitted,

DRAFT REPORT 4/28/2023
DATA SUBJECT TO CHANGE

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0260

Customer:	IPC - Integrated Performance Consultants, Inc.	**Project :**	(MCC) EFF - Quarterly
Address:	9297 Research Drive Irvine CA 92618	**Sampled by:**	Mario Aguirre
		Report Attention:	Rig Vardel / Golan Kfir
		P.O. #:	
		Phone #:	949-382-9067

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab
EFF	2/7/23	11:25	1	Ag, Al, As, Ba, Be, Ca, Cd, Cr, Cu, Fe, Mn, Hg, Ni, Sb, Se, Tl, U, Zn	Grab	AQ	1L P	HN	
			1	Fluoride, Bromate, Chlorite, Color, Odor, pH, Conductivity, Alkalinity, Temperature	Grab	AQ	1/2 Gal. P	4°C	
			1	Cyanide	Grab	AQ	250 P	OH, AA	
			1	MBAS	Grab	AQ	500 P	4°C	
			6	524, 504	Grab	AQ	3-VOA Vials	4°C	
			7	507, 515, 632, 508, 550, 506, 552	Grab	AQ	1L G	4°C	
			2	547 Glyphosate **(Sub-Out)**	Grab	AQ	Vials Amber	4°C	
			1	548 Endothall **(Sub-Out)**	Grab	AQ	1L G	4°C	
			1	549 Diquat **(Sub-Out)**	Grab	AQ	1L P Amber	4°C	
			1	Dioxin - 2,3,7,8 TCDD **(Sub-Out)**	Grab	AQ	1L G	4°C	

RECEIVED
FEB 07 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	2/7/23	11:47
Received by	MARIO SANTIESTEBAN (PCL)	2/7/23	1340
Relinquished by	MARIO SANTIESTEBAN (PCL)	2/7/23	1630
Received by			
Relinquished by			
Received in lab by	Alex Wan FEB 07 2023		1630

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes No
Samples intact?	Yes No
Samples properly preserved?	Yes No
Samples in holding time?	Yes No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**Al** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 23B0260

(MCC) EFF - Quarterly **Page 2 of 2**

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :**	
Address: 9297 Research Drive Irvine CA 92618	**Sampled by:** Marc Aguirre / Ric Vardel / Golan Kfir **Report Attention:**	**P.O. #:** **Phone #:** 949-382-9067	

Sample Description	Date Sampled	Time Sampled	# of bottles	Required Tests	Sample Type	Matrix	Bottle Type	Preserve	Field Data (pH / Temperature) pH: Field Lab EC =
EFF	2/7/23	11:25	4	Radium-226 & 228 (Sub-Out) Gross Alpha, Gross Beta	Grab	AQ	1L P	4°C	
			1	Strontium-90 (Sub-Out)	Grab	AQ	1L P	4°C	
			2	Tritium (Sub-Out)	Grab	AQ	VOA Vials	4°C	
			1	Perchlorate (Sub-Out, leave headspace)	Grab	AQ	500 P	4°C	
			1	Asbestos (Sub-Out)	Grab	AQ	1L G	4°C	
			1	8321 Carbamates (Sub-out)	Grab	AQ	125ml Amber	4°C	

RECEIVED
FEB 07 2023
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Marc Aguirre (IPC)	2/7/23	11:47
Received by	MARIO SANTIESTEBAN (PCL)	2/7/23	1340
Relinquished by	MARIO SANTIESTEBAN (PCL)	2/7/23	1630
Received by			
Relinquished by			
Received in lab by	Alex Warren FEB 07 2023		1630

Sample Received Checklist

Temperature upon receipt: 4°C

# of bottles agrees with COC?	Yes	No
Samples intact?	Yes	No
Samples properly preserved?	Yes	No
Samples in holding time?	Yes	No

Compliance Monitor

Initial Flow _____

Final Flow _____

Sample Type	Preservations
Grab	**HC** - HCl
Comp	**HS** - H_2SO_4
Matrix	**HN** - HNO_3
AQ - Water	**HP** - H_3PO_4
SO -Soil / Sludge	**OH** - NaOH
OT - Other	**ST** - Sodium Thiosulfate
Bottle Type	**AA** - Ascorbic Acid
P - Plastic	**AI** - $AlCl_3$
G - Amber Glass	**Cu** -$CuSO_4$
VOA - 40 ml Vial	
Coli - bacteria	

Note: Samples are discarded 30 days after results are reported, unless other arrangements are made.

Rev 2 Effective 5/1/17

CERES Analytical Laboratory, Inc.
4919 Windplay Dr. Suite 1, El Dorado Hills, CA 95762

February 16, 2023 Ceres ID: 16110

Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

The following report contains the results for the one waste water sample received on February 13, 2023. This sample was analyzed for 2,3,7,8-TCDD by EPA 1613. Routine turn-around time was provided for this work.

This work was authorized under Pat-Chem Laboratories' Project # 23B0260.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (CCV) met the acceptance criteria.

The report consists of a Cover Letter, Sample Inventory (Section I), Data Summary (Section II), Sample Tracking (Section VI), and Qualifiers/Abbreviations (Section VII). Raw Data (Section III), Continuing Calibration (Section IV), and Initial Calibration (Section V) are available in a full report (.pdf format) upon request.

If you have any questions regarding this report, please feel free to contact me at (916)932-5011.

Sincerely,



James M. Hedin
Director of Operations/CEO
jhedin@ceres-lab.com

Section I: Sample Inventory

Ceres Sample ID:	Sample ID	Date Received	Collection Date	&Time
16110-001	23B0260-01	2/13/2023	2/7/2023	11:25

Section II: Data Summary

CERES Analytical Laboratory, Inc.
4919 Windplay Dr.Suite 1, El Dorado Hills, CA 95762

EPA Method 1613B

Quality Assurance Sample **Method Blank**	**QC Batch #:** 2814	**Date Received:** NA
	Matrix: Waste Water	**Date Extracted:** 2/14/2023
Project ID: 23B0260	**Sample Size:** 1.000 L	**Date Analyzed:** 2/15/2023

Analyte	Conc. (pg/L)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 3.84	0.772	5.00		13C-2378-TCDD	92.9	31-137	
					CRS			
					37Cl4-2378-TCDD	99.8	35-197	

DL - Signifies Non-Detect (ND<) sample specific detection limit.
EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.
(a) - Lower control limit - Upper control limit

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.
4919 Windplay Dr. Suite 1, El Dorado Hills, CA 95762

EPA Method 1613B

Quality Assurance Sample **Ongoing Precision and Recovery**		**Date Received:** NA
	QC Batch #: 2814	**Date Extracted:** 2/14/2023
	Matrix: Waste Water	**Date Analyzed:** 2/15/2023
Project ID: 23B0260	**Sample Size:** 1.000 L	

Analyte	Conc. (ng/mL)	Limits (a)	Labeled Standards	% Rec.	Limits (a)
2,3,7,8-TCDD	8.24	7.3-14.6	13C-2378-TCDD	99.6	25-141
			CRS		
			37Cl4-2378-TCDD	102	37-158

(a) Limits based on method acceptance criteria.

Analyst: JMH **Reviewed by: BS**

CERES Analytical Laboratory, Inc.
4919 Windplay Dr.Suite 1, El Dorado Hills, CA 95762

EPA Method 1613B

Client Sample ID: 23B0260-01		
Project ID: 23B0260	**Ceres Sample ID:** 16110-001	**Date Received:** 2/13/2023
	QC Batch #: 2814	**Date Extracted:** 2/14/2023
Date Collected: 2/7/2023	**Matrix:** Waste Water	**Date Analyzed:** 2/15/2023
Time Collected: 11:25	**Sample Size:** 0.963 L	

Analyte	Conc. (pg/L)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 2.26	0.772	5.19		13C-2378-TCDD	74.8	31-137	
					CRS			
					37Cl4-2378-TCDD	96.5	42-164	

DL - Signifies Non-Detect (ND<) sample specific detection limit.
EMPC - Estimated Maximum Possible Concentration due to ion abundance ratio failure.
(a) - Lower control limit - Upper control limit

Analyst: JMH **Reviewed by: BS**

Section VI: Sample Tracking

SUBCONTRACT ORDER

Pat-Chem Laboratories

23B0260

SENDING LABORATORY:

Pat-Chem Laboratories
1824 First Street
San Fernando, CA 91340
Phone: 818-639-5300
Fax: 818-639-5306
Project Manager: Theresa Trevizo

RECEIVING LABORATORY:

Ceres Analytical Laboratory, Inc
4919 Windplay Dr. Suite 1
El Dorado Hills, CA 95762
Phone :(916) 932-5011
Fax: (916) 932-5017

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 23B0260-01	WASTE **Water**	**Sampled:07-Feb-23 11:25**	[redacted]	**IPC [MCC] EFF-Quarterly**
Dioxin 2,3,7,8-TCDD 1613	(Su22-Feb-23 12:00	14-Feb-23 11:25		
Containers Supplied:				

Released By	Date	Received By	Date
[signature]	FEB 09 2023	[signature]	2/13/23
Released By	Date	Received By	Date

Sample Receipt Check List Logged by: HA (initials)

Ceres ID: 16110	Date/Time: 2/13/23 10:40
Client Project ID: 23B0260	Received Temp: 3.2 °C Acceptable: (Y) / N
Chain of Custody Relinquished by signed?	(Y) / N
Chain of Custody Received by signed?	(Y) / N
Custody Seals? Present?	Y / N
Intact?	Y / N
NA:	(NA)
Unlabeled / Illegible Samples	Y / (N)
Proper Containers:	(Y) / N
Preservation Acceptable (Chemical or ~~Temperature~~)?	(Y) / N
Drinking Water, Sodium Thiosulfate present?	Y / N / (NA)
~~Residual~~ Cl?	Y / (N) / NA
Aqueous sample pH: 7	NA
List COC discrepancies: HA 2/13/23	
List Damaged Samples: HA 2/13/23	

Section VII: Qualifiers/Abbreviations

J	Concentration found below the lower quantitation limit but greater than zero.
B	Analyte present in the associated Method Blank.
E	Concentration found exceeds the Calibration range of the HRGC/HRMS.
D	This analyte concentration was calculated from a dilution.
X	The concentration found is the estimated maximum possible concentration due to chlorinated diphenyl ethers present in the sample.
H	Recovery limits exceeded. See cover letter.
*****	Results taken from dilution.
I	Interference. See cover letter.
Conc.	Concentration Found
DL	Calculated Detection Limit
ND	Non-Detect
% Rec.	Percent Recovery

LA Testing
520 Mission Street South Pasadena, CA 91030
Phone/Fax: (323) 254-9960 / (323) 254-9982
http://www.LATesting.com / pasadenalab@latesting.com

LA Testing Order ID: 322303494
Customer ID: PTCM42
Customer PO:
Project ID:

Attn: Theresa Trevizo
Pat Chem Laboratories
1824 1st St
San Fernando, CA 91340

Phone: (805) 532-0012
Fax:
Received: 02/08/2023
Analyzed: 02/17/2023

Proj: 23B0260

Test Report: Determination of Asbestos Structures ≥ 0.5 µm & > 10µm in Water Performed by the 100.2 Method (EPA 600/R-94/134)

Sample ID Client / EMSL	Sample Filtration Date/Time	Original Sample Vol. Filtered (ml)	Effective Filter Area (mm²)	Area Analyzed (mm²)	ASBESTOS					
						Asbestos Types	Fibers Detected	Analytical Sensitivity	Concentration	Confidence Limits
								MFL (million fibers per liter)		
23B0260-01 322303494-0001	2/8/2023 03:10 PM	30	1288	0.2227	≥ 0.5 µm	None Detected	ND	0.19	<0.19	0.00 - 0.71
					> 10 µm only	None Detected	ND	0.19	<0.19	0.00 - 0.71

Collection Date/Time: *02/07/2023 11:25 AM*

Analyst(s)
Kyeong Corbin (1)

Jerry Drapala Ph.D, Laboratory Manager
or Other Approved Signatory

Any questions please contact Jerry Drapala.

Initial report from: 02/21/2023 11:05:35

LA Testing maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by LA Testing. LA Testing bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Estimation of uncertainty is available on request. Sample collection and containers provided by the client, acceptable bottle blank level is defined as ≤0.01MFL>10um. ND=None Detected. No Fibers Detected: the value will be reported as less than 369% of the concentration equivalent to one fiber. 1 to 4 fibers: The result will be reported as less than the corresponding upper 95% confidence limit (Poisson),5 to 30 fibers: Mean and 95% confidence intervals will be reported on the basis of the Poisson assumption. When more than 30 fibers are counted, both the Gaussian 95% confidence interval and the Poisson 95% confidence interval will be calculated. The large of these two intervals will be selected for data reporting. When the Gaussian 95% confidence interval is selected for data reporting, the Poisson will also be noted.

Samples analyzed by LA Testing South Pasadena, CA CA ELAP 2283

March 14, 2023

Pat-Chem Laboratories
Attn: Stephen Sakai
1824 1st St
San Fernando, CA 91340

Subject: Subcontract Analysis for FGL Lab No. SP 2301902

Enclosed please find results for the following sample(s) which were received by FGL.

- Sub Contracted-Strontium 90 EPA 905.0

Please note that this analysis was performed by Eberline Analytical

Thank you for using FGL Environmental.

Sincerely,

Cindy Aguirre Digitally signed by Cindy Aguirre
Title: Customer Service Rep
Date: 2023-03-14

Enclosure

EBERLINE ANALYTICAL

EBERLINE ANALYTICAL CORPORATION
601 SCARBORO ROAD
OAK RIDGE, TENNESSEE 37830
PHONE (865) 481-0683
FAX (865) 483-4621

EBS-OR-50786

March 13, 2023

Cindy Aguirre
FGL Environmental, Inc.
853 Corporation St
Santa Paula, CA 93060-3005

CASE NARRATIVE
CWB accredited – Lab ID 9257348
Work Order # 23-02036-OR

SAMPLE RECEIPT

This work order contains one water sample received 02/10/2023. Sample was analyzed for Strontium-90.

CLIENT ID	LAB ID
23B0260-01	23-02036-05

ANALYTICAL METHODS

Strontium-90 was analyzed using EPA Method 905.0 Modified.

ANALYTICAL RESULTS

Combined Standard Uncertainty is reported at 1-sigma value.

Minimum Detectable Activity (MDA) values for data represented in this report are sample-specific. MDA measurements are determined based on factors and conditions including instrument settings, aliquot size, and matrix type.

STRONTIUM 90

Sample demonstrated acceptable results for all Strontium-90 analyses. Chemical recovery was acceptable for all analyses. The Strontium 90 method blank demonstrated an acceptable result. Results for the Strontium-90 duplicate demonstrated a high relative percent difference; however, normalized difference is within acceptable limits for the analytical method. Results for the Strontium-90 laboratory control sample demonstrated an acceptable percent recovery.

CERTIFICATION OF ACCURACY

I certify that this data report complies with the terms and conditions of the Purchase Order, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the cognizant project manager or his/her designee to be accurate as verified by the following signature.

M.R. McDougall
Laboratory Manager

Date: 3/13/2023

Eberline Analytical wants and encourages your feedback regarding our performance providing radioanalytical services. Please visit http://eberlineanalytical.com/ to provide us with feedback on our services.

Eberline Analytical
Final Report of Analysis

Report To:

Cindy Aguirre
FGL Environmental, Inc.
853 Corporation St
Santa Paula, CA 93060-3005

Work Order Details:

SDG: **23-02036**
Purchase Order: SP 2301902
Analysis Category: ENVIRONMENTAL
Sample Matrix: WA

Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
23-02036-01	LCS	KNOWN	02/10/23 00:00	2/10/2023	3/8/2023	23-02036	Strontium-90	EPA 905.0 Modified	4.90E+01	2.74E-01			pCi/l
23-02036-01	LCS	SPIKE	02/10/23 00:00	2/10/2023	3/8/2023	23-02036	Strontium-90	EPA 905.0 Modified	5.76E+01	1.39E+00	7.95E+00	5.65E-01	pCi/l
23-02036-02	MBL	BLANK	02/10/23 00:00	2/10/2023	3/8/2023	23-02036	Strontium-90	EPA 905.0 Modified	2.92E-01	2.80E-01	2.83E-01	5.66E-01	pCi/l
23-02036-03	DUP	23B0260-01	02/07/23 11:25	2/10/2023	3/8/2023	23-02036	Strontium-90	EPA 905.0 Modified	-8.74E-02	6.16E-01	6.16E-01	1.33E+00	pCi/l
23-02036-05	DO	23B0260-01	02/07/23 11:25	2/10/2023	3/8/2023	23-02036	Strontium-90	EPA 905.0 Modified	1.04E+00	6.17E-01	6.33E-01	1.20E+00	pCi/l

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (1-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original

ENVIRONMENTAL FGL AGRICULTURAL
Analytical Chemists

Subcontract to Eberline Analytical

CHAIN OF CUSTODY
AND ANALYSES REQUEST FORM

REC'D FEB 10 2023

23-02036

Chain of Custody Information

Lab Number:

Client: Fruit Growers Laboratory
Address: 853 Corporation St.
Santa Paula, CA 93060-3005

Phone: Fax:
Contact:
Project: **SP 2301902**
Purchase Order:

Sampler(s): Not Available

Compositor Setup Date: Time:

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite (C) Grab(G)	Type of Sample	Potable(P) Non-Potable(NP) Ag Waiver (AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Test Description(s): Sub Contracted-Strontium 90 EPA 905.0 250 ml(AGT)								
5 1	23B0260-01	02/07/2023	11:25	G	WW				1								

Remarks

Relinquished	Date	Time	Relinquished	Date	Time	Relinquished	Date	Time
[illegible]	2/9/23	17:00	UPS					
Received By:	**Date**	**Time**	**Received By:**	**Date**	**Time**	**Received By:**	**Date**	**Time**
UPS			Randolph Spencer	2-10-23	0930			

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

April 20, 2023

Lab No. : SP 2301902
Customer No. : 2012670

Pat-Chem Laboratories
Attn: Stephen Sakai
1824 1st St
San Fernando, CA 91340

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	(2 pages)	: Results for each sample submitted.
Quality Control	(2 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
23B0260-01	02/07/2023	02/08/2023	SP 2301902-001	WW

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. 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.

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 314.0	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 900.0	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 903.0	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 906.0	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA RA-05	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: SVH

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2023-04-20

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

April 20, 2023

Pat-Chem Laboratories
Attn: Stephen Sakai
1824 1st St
San Fernando, CA 91340

Description : 23B0260-01
Project : 23B0260

Lab No. : SP 2301902-001
Customer No. : 2012670

Sampled On : February 7, 2023 at 11:25
Sampled By : Not Available
Received On : February 8, 2023 at 09:44
Matrix : Waste Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
Wet Chemistry							Date	Time	Who	Method	Date	Time	Who
Perchlorate	ND	2	ug/L		1	U	02/10/2023	17:00	sbl	EPA 314.0	02/11/2023	00:33	sbl

ND=Non-Detected, RL=Reporting Level.

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853 Corporation Street
Santa Paula, CA 93060
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Stockton, CA 95215
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Office & Laboratory
9415 W. Goshen Avenue
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TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

April 20, 2023

Pat-Chem Laboratories
Attn: Stephen Sakai
1824 1st St
San Fernando, CA 91340

Description : 23B0260-01
Project : 23B0260

Lab No. : SP 2301902-001
Customer No. : 2012670

Sampled On : February 7, 2023 at 11:25
Sampled By : Not Available
Received On : February 8, 2023 at 09:44
Matrix : Waste Water

Sample Results - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	DQF	Sample Preparation			Sample Analysis			
Radio Chemistry						Date	Time	Who	Method	Date	Time	Who
Gross Alpha	7.07 ± 2.19	3.06	pCi/L	15/5	l	03/14/2023	08:15	amr	EPA 900.0	04/19/2023	12:35	amr
Gross Beta	11.9 ± 1.99	2.27	pCi/L		l	03/14/2023	08:15	amr	EPA 900.0	04/19/2023	12:35	amr
Total Alpha Radium (226)	0.00 ± 0.158	0.716	pCi/L			02/21/2023	17:30	emv	EPA 903.0	02/24/2023	07:28	amr
Tritium	-22.8 ± 267	434	pCi/L			02/09/2023	07:30	amr	EPA 906.0	02/10/2023	04:19	amr
Ra 228	0.000 ± 0.671	0.624	pCi/L			02/26/2023	11:00	emv	EPA RA-05	03/02/2023	19:10	emv

DQF Flags Definition:
U Constituent results were non-detect.
l The MS/MSD did not meet QC criteria.

ND=Non-Detected, RL=Reporting Level

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference.
MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV).
AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:
Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L
Uranium is less than or equal to 20 pCi/L
Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Note: Samples are held for 3-6 months prior to disposal.

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April 20, 2023

Pat-Chem Laboratories

Lab No. : SP 2301902
Customer No. : 2012670

Quality Control - Radio

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Radio								
Gross Alpha	900.0	03/14/2023:202734AMR	Blank	pCi/L		ND	<1.9499	
			LCS	pCi/L	126.7	79.0%	50-135	
			MS	pCi/L	126.7	71.4%	60-140	
		(SP 2302696-001)	MSD	pCi/L	126.7	56.0%	60-140	435
			MSRPD	pCi/L	126.7	24.1%	≤30	
Gross Beta	900.0	03/14/2023:202734AMR	Blank	pCi/L		ND	<1.8226	
			LCS	pCi/L	21.70	88.3%	60-126	
			MS	pCi/L	21.70	4470%	<Â¼	
		(SP 2302696-001)	MSD	pCi/L	21.70	-154%	80-130	435
			MSRPD	pCi/L	21.70	108.2%	≤30	435
Total Radium	903.0	02/21/2023:201599EMV	RgBlk	pCi/L		-0.07364	0.71648	
			LCS	pCi/L	24.37	87.1%	52-107	
			BS	pCi/L	24.37	83.1%	43-111	
			BSD	pCi/L	24.37	92.9%	43-111	
			BSRPD	pCi/L	24.37	11.2%	≤35.5	
Tritium	906.0	02/09/2023:201413AMR	Blank	pCi/L		ND	<433.74	
			LCS	pCi/L	1432	124%	75-125	
			MS	pCi/L	1432	104%	75-125	
		(SP 2301905-001)	MSD	pCi/L	1432	105%	75-125	
			MSRPD	pCi/L	1432	1.4%	≤25	
Radium - 228	Ra - 05	02/26/2023:201598EMV	RgBlk	pCi/L		-0.20	3	
			LRS	pCi/L	11.64	73.6 %	65-108	
			BS	pCi/L	11.64	99.5 %	75-125	
			BSD	pCi/L	11.64	96.8 %	75-125	
			BSRPD	pCi/L	11.64	0.31	≤3	

Definition

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
BS : Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
BSD : Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.
BSRPD : BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.
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.
LRS : Laboratory Recovery Standard - Prepared to establish the batch recovery factor used in result calculations.
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.
RgBlk : Method Reagent Blank - Prepared to correct for any reagent contributions to sample result.

Explanation

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

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April 20, 2023

Pat-Chem Laboratories

Lab No. : SP 2301902
Customer No. : 2012670

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
Perchlorate	314.0	02/10/2023:201505SBL	RgBlk	ug/L		0	2	435
			LCS	ug/L	25.00	86.7%	85-115	
			MS	ug/L	25.00	102%	80-120	
		(CH 2370848-001)	MSD	ug/L	25.00	101%	80-120	
			MSRPD	ug/L	25.00	1.6%	≤15	

Definition

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.

RgBlk : Method Reagent Blank - Prepared to correct for any reagent contributions to sample result.

Explanation

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

Page 5 of 5

SUBCONTRACT ORDER

Pat-Chem Laboratories

23B0260

2301902

SENDING LABORATORY:

Pat-Chem Laboratories
1824 First Street
San Fernando, CA 91340
Phone: 818-639-5300
Fax: 818-639-5306
Project Manager: Theresa Trevizo

RECEIVING LABORATORY:

Fruit Growers - FGL
853 Corporation Street
Santa Paula, CA 93060
Phone :(805) 525-3824
Fax: (805) 525-4172

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 23B0260-01	WASTE Water	**Sampled: 07-Feb-23 11:25**		**IPC [MCC] EFF-Quarterly**
Tritium (Sub)	22-Feb-23 12:00	09-Feb-23 11:25		
Sr-90 (Strontium 90) (Sub)	22-Feb-23 12:00	06-Aug-23 11:25		
Radium 228 (Sub) & 226	22-Feb-23 12:00	06-Aug-23 11:25		
Perchlorate 314.0 (Sub)	22-Feb-23 12:00	07-Mar-23 11:25		
Gross Beta	22-Feb-23 12:00	07-Feb-24 11:25		
Gross Alpha	22-Feb-23 12:00	07-Feb-24 11:25		
Containers Supplied:				

Released By	Date	Received By	Date
[signature]	FEB 08 2023	[signature]	2/8/23
[signature]	2/8/23	MC	2/8/23 9:44

POI 6

ENVIRONMENTAL FGL AGRICULTURAL
Analytical Chemists

Subcontract to Eberline Analytical

CHAIN OF CUSTODY
AND ANALYSES REQUEST FORM

Chain of Custody Information

Lab Number:

Client: Fruit Growers Laboratory
Address: 853 Corporation St.
Santa Paula, CA 93060-3005

Phone: Fax:
Contact:
Project: **SP 2301902**
Purchase Order:

Sampler(s): Not Available

Compositor Setup Date: Time:

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite (C) Grab(G)	Type of Sample	Potable(P) Non-Potable(NP) Ag Waiver (AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Test Description(s): Sub Contracted-Strontium 90 EPA 905.0 250 ml(AGT)								
1	23B0260-01	02/07/2023	11:25	G	WW				1								

Remarks

Relinquished	Date	Time	Relinquished	Date	Time	Relinquished	Date	Time
Received By:	Date	Time	Received By:	Date	Time	Received By:	Date	Time

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Condition Upon Receipt (Attach to COC) SP 2301902

Sample Receipt at SP:

1. Number of ice chests/packages received: **OTC**
2. Shipper tracking numbers _____
3. Were samples received in a chilled condition?
   Temps: **ROI** / **6** / _____ / _____ / _____ / _____ / _____
4. Surface water (SWTR) bact samples: A sample that has a temperature upon receipt of >10C, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.
5. Do the number of bottles received agree with the COC? **Yes** No N/A
6. Verify sample date, time, sampler **Yes** No N/A
7. Were the samples received intact? (i.e. no broken bottles, leaks, etc.) **Yes** No
8. Were sample custody seals intact? Yes No **N/A**

Sample Verification, Labeling and Distribution:

1. Were all requested analyses understood and acceptable? **Yes** No
2. Did bottle labels correspond with the client's ID's? **Yes** No
3. Were all bottles requiring sample preservation properly preserved? Yes **No** N/A **FGL**
   [Exception: Oil & Grease, VOA and CrVI verified in lab]
4. VOAs checked for Headspace? Yes No **N/A**
5. Were all analyses within holding times at time of receipt? **Yes** No
6. Have rush or project due dates been checked and accepted? Yes No **N/A**

Include a copy of the COC for lab delivery. (Bacti. Inorganics and Radio)

Sample Receipt, Login and Verification completed by: Reviewed and Approved By **Daisy Aguayo** Digitally signed by Daisy Aguayo Title: Sample Receiving Date: 02/08/2023-12:58:12

Discrepency Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: Brandon Phone Number: _____
   Initiated By: Daisy Aguayo Date: 2/7/23
   Problem: **Strotium 90 was not preserved with HN03**

   Resolution: **Brandon will preserve on house.**

2. Person Contacted: _____ Phone Number: _____
   Initiated By: _____ Date: _____
   Problem:

   Resolution:

(2012670)
Pat-Chem Laboratories
SP 2301902
DA0-02/08/2023-12:58:12

WECK LABORATORIES, INC.

Certificate of Analysis

PRELIMINARY REPORT

Work Orders: 3B09037

Project: 23B0260

Attn: Theresa Trevizo

Client: Pat-Chem Laboratories, Inc.
1824 1st Street
San Fernando, CA 91340

Report Date: 4/27/2023

Received Date: 2/8/2023

Turnaround Time: Normal

Phones: (818) 639-5300

Fax: (818) 639-5306

P.O. #:

Billing Code:

DoD-ELAP ANAB #ADE-2882 • DoD-ISO ANAB # • ELAP-CA #1132 • EPA-UCMR #CA00211 • ISO17025 ANAB #L2457.01 • LACSD #10143

This is a preliminary report and is produced for review and guidance purpose only and should not be considered final. Information in this report may be missing or may be changed. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories DOES NOT certify that the test results meet all requirements of TNI. Neither Weck Laboratories, Inc. nor any of its employees, contractors, subcontractors, or their employees make any warrant, expressed or implied, or assume any legal liability or responsibility for use of any information inscribed in this report.

Dear Theresa Trevizo,

Enclosed are the results of analyses for samples received 2/08/23 with the Chain-of-Custody document. The samples were received in good condition, at 4.6 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Reviewed by:

DRAFT REPORT
DATA SUBJECT TO CHANGE

14859 Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634

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Pat-Chem Laboratories, Inc.
1824 1st Street
San Fernando, CA 91340

Project Number: 23B0260

Project Manager: Theresa Trevizo

Reported:
04/27/2023 19:37

Sample Summary

Sample Name	Sampled By	Lab ID	Matrix	Sampled	Qualifiers
23B0260-01	Client	3B09037-01	Water	02/07/23 11:25	

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Pat-Chem Laboratories, Inc.
1824 1st Street
San Fernando, CA 91340

Project Number: 23B0260

Project Manager: Theresa Trevizo

Reported:
04/27/2023 19:37

Sample Results

Sample: 23B0260-01
3B09037-01 (Water)

Sampled: 02/07/23 11:25 by Client

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Acids Herbicides by GC/ECD						
Method: EPA 515.4		**Instr:** GC08				
Batch ID: W3B1330 **Preparation:** EPA 515.4/Micro Ext. Drtz		**Prepared:** 02/16/23 08:17				**Analyst:** rjg
2,4,5-T	ND	0.20	ug/l	1	02/25/23	U-01
2,4,5-TP (Silvex)	ND	0.20	ug/l	1	02/25/23	U-01
2,4-D	ND	0.40	ug/l	1	02/25/23	U-01
2,4-DB	ND	2.0	ug/l	1	02/25/23	U-01
3,5-Dichlorobenzoic acid	ND	1.0	ug/l	1	02/25/23	U-01
Acifluorfen	ND	0.40	ug/l	1	02/25/23	U-01
Bentazon	ND	2.0	ug/l	1	02/25/23	U-01
Dalapon	ND	0.40	ug/l	1	02/25/23	U-01
DCPA	ND	0.10	ug/l	1	02/25/23	U-01
Dicamba	ND	0.60	ug/l	1	02/25/23	U-01
Dichloroprop	ND	0.30	ug/l	1	02/25/23	U-01
Dinoseb	ND	0.40	ug/l	1	02/25/23	U-01
Pentachlorophenol	ND	0.20	ug/l	1	02/25/23	U-01
Picloram	ND	0.60	ug/l	1	02/25/23	U-01
Surrogate(s)						
2,4-DCAA	*93%*	*Conc: 9.27*	*70-130*		*02/25/23*	
Chlorinated Pesticides and/or PCBs by GC/ECD						
Method: EPA 508.1		**Instr:** GC08				
Batch ID: W3B1518 **Preparation:** EPA 508.1/SPE		**Prepared:** 02/17/23 08:10				**Analyst:** rjg
4,4´-DDD	ND	0.010	ug/l	1	03/03/23	U-01
4,4´-DDE	ND	0.010	ug/l	1	03/03/23	U-01
4,4´-DDT	ND	0.010	ug/l	1	03/03/23	U-01
Aldrin	ND	0.010	ug/l	1	03/03/23	U-01
alpha-BHC	ND	0.010	ug/l	1	03/03/23	U-01
Aroclor 1016	ND	2.0	ug/l	1	03/03/23	R-01, U-01
Aroclor 1221	ND	2.0	ug/l	1	03/03/23	R-01, U-01
Aroclor 1232	ND	2.0	ug/l	1	03/03/23	R-01, U-01
Aroclor 1242	ND	2.0	ug/l	1	03/03/23	R-01, U-01
Aroclor 1248	ND	2.0	ug/l	1	03/03/23	R-01, U-01
Aroclor 1254	ND	2.0	ug/l	1	03/03/23	R-01, U-01
Aroclor 1260	ND	2.0	ug/l	1	03/03/23	R-01, U-01
beta-BHC	ND	0.050	ug/l	1	03/03/23	R-01, U-01
Chlordane (tech)	ND	0.50	ug/l	1	03/03/23	R-01, U-01
Chlorothalonil	ND	0.050	ug/l	1	03/03/23	U-01
delta-BHC	ND	0.010	ug/l	1	03/03/23	U-01
Dieldrin	ND	0.010	ug/l	1	03/03/23	U-01

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Pat-Chem Laboratories, Inc.
1824 1st Street
San Fernando, CA 91340

Project Number: 23B0260

Project Manager: Theresa Trevizo

Reported:
04/27/2023 19:37

Sample Results

(Continued)

Sample: 23B0260-01
3B09037-01 (Water)

Sampled: 02/07/23 11:25 by Client
(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)

Method: EPA 508.1 **Instr:** GC08

Batch ID: W3B1518 **Preparation:** EPA 508.1/SPE **Prepared:** 02/17/23 08:10 **Analyst:** rjg

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Endosulfan I	ND	0.010	ug/l	1	03/03/23	U-01
Endosulfan II	ND	0.010	ug/l	1	03/03/23	U-01
Endosulfan sulfate	ND	0.020	ug/l	1	03/03/23	R-01, U-01
Endrin	ND	0.010	ug/l	1	03/03/23	U-01
Endrin aldehyde	ND	0.010	ug/l	1	03/03/23	U-01
gamma-BHC (Lindane)	ND	0.010	ug/l	1	03/03/23	U-01
Heptachlor	ND	0.010	ug/l	1	03/03/23	U-01
Heptachlor epoxide	ND	0.010	ug/l	1	03/03/23	U-01
Hexachlorobenzene	ND	0.050	ug/l	1	03/03/23	U-01
Hexachlorocyclopentadiene	ND	0.10	ug/l	1	03/03/23	R-01, U-01
Methoxychlor	ND	0.010	ug/l	1	03/03/23	U-01
PCBs, Total	ND	2.0	ug/l	1	03/03/23	R-01, U-01
Propachlor	ND	0.050	ug/l	1	03/03/23	U-01
Toxaphene	ND	5.0	ug/l	1	03/03/23	R-01, U-01
Trifluralin	ND	0.020	ug/l	1	03/03/23	R-01, U-01
Surrogate(s)						
4,4-Dibromobiphenyl	*79%*	*Conc: 0.0804*	*70-130*		*03/03/23*	*U-01*

Method: EPA 608.3 **Instr:** GC07

Batch ID: W3B1238 **Preparation:** EPA 608/L-L SF **Prepared:** 02/15/23 07:37 **Analyst:** RJG

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
4,4´-DDD	ND	0.050	ug/l	1	03/07/23	O-05
4,4´-DDE	ND	0.050	ug/l	1	03/07/23	O-05, Q-02
4,4´-DDT	ND	0.050	ug/l	1	03/07/23	O-05
Aldrin	ND	0.050	ug/l	1	03/07/23	O-05
alpha-BHC	ND	0.050	ug/l	1	03/07/23	O-05
Aroclor 1016	ND	1.0	ug/l	1	03/07/23	O-05
Aroclor 1221	ND	1.0	ug/l	1	03/07/23	O-05
Aroclor 1232	ND	1.0	ug/l	1	03/07/23	O-05
Aroclor 1242	ND	1.0	ug/l	1	03/07/23	O-05
Aroclor 1248	ND	1.0	ug/l	1	03/07/23	O-05
Aroclor 1254	ND	1.0	ug/l	1	03/07/23	O-05
Aroclor 1260	ND	1.0	ug/l	1	03/07/23	O-05
beta-BHC	ND	0.050	ug/l	1	03/07/23	O-05
Chlordane (tech)	ND	0.50	ug/l	1	03/07/23	O-05
delta-BHC	ND	0.050	ug/l	1	03/07/23	O-05
Dieldrin	ND	0.050	ug/l	1	03/07/23	O-05
Endosulfan I	ND	0.050	ug/l	1	03/07/23	O-05

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1824 1st Street
San Fernando, CA 91340

Project Number: 23B0260

Project Manager: Theresa Trevizo

Reported:
04/27/2023 19:37

Sample Results

(Continued)

Sample: 23B0260-01
3B09037-01 (Water)

Sampled: 02/07/23 11:25 by Client
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)						
Method: EPA 608.3		**Instr:** GC07				
Batch ID: W3B1238 **Preparation:** EPA 608/L-L SF		**Prepared:** 02/15/23 07:37				**Analyst:** RJG
Endosulfan II	ND	0.050	ug/l	1	03/07/23	O-05
Endosulfan sulfate	ND	0.050	ug/l	1	03/07/23	O-05
Endrin	ND	0.050	ug/l	1	03/07/23	O-05
Endrin aldehyde	ND	0.050	ug/l	1	03/07/23	O-05
gamma-BHC (Lindane)	ND	0.050	ug/l	1	03/07/23	O-05
Heptachlor	ND	0.050	ug/l	1	03/07/23	O-05
Heptachlor epoxide	ND	0.050	ug/l	1	03/07/23	O-05
Methoxychlor	ND	0.050	ug/l	1	03/07/23	O-05, Q-02
Toxaphene	ND	2.0	ug/l	1	03/07/23	O-05
Surrogate(s)						
Decachlorobiphenyl	*65% Conc: 0.0652*	*33-133*			*03/07/23*	
Tetrachloro-meta-xylene	*49% Conc: 0.0497*	*32-130*			*03/07/23*	
Diquat and Paraquat by EPA 549.2						
Method: EPA 549.2		**Instr:** LC10				
Batch ID: W3B1244 **Preparation:** EPA 549.2/SPE		**Prepared:** 02/15/23 08:14				**Analyst:** pjs
Diquat	ND	4.0	ug/l	1	03/03/23	O-05
Endothall By EPA 548.1						
Method: EPA 548.1		**Instr:** GCMS06				
Batch ID: W3B1291 **Preparation:** EPA 548.1/SPE		**Prepared:** 02/15/23 10:47				**Analyst:** rmr
Endothall	ND	45	ug/l	1	02/21/23	O-05
Glyphosate by EPA 547						
Method: EPA 547		**Instr:** LC11				
Batch ID: W3B1720 **Preparation:** _NONE (LC)		**Prepared:** 02/21/23 14:11				**Analyst:** PJS
Glyphosate	ND	5.0	ug/l	1	02/21/23	
Haloacetic Acids (HAAs) by GC/ECD						
Method: EPA 552.3		**Instr:** [CALC]				
Batch ID: [CALC] **Preparation:** [CALC]		**Prepared:** 02/21/23 08:41				**Analyst:** ecs
HAA5, Total	**18**	1.0	ug/l	1	02/23/23	
Method: EPA 552.3		**Instr:** GC05				
Batch ID: W3B1651 **Preparation:** EPA 552.3/Micro Ext. Drtz		**Prepared:** 02/21/23 08:41				**Analyst:** ecs
Bromochloroacetic acid (bcaa)	**2.8**	1.0	ug/l	1	02/23/23	U-01
Bromodichloroacetic acid (bdcaa)	**1.5**	1.0	ug/l	1	02/23/23	U-01
Chlorodibromoacetic acid (cdbaa)	ND	1.0	ug/l	1	02/23/23	U-01
Dibromoacetic acid (dbaa)	ND	1.0	ug/l	1	02/23/23	U-01
Dichloroacetic acid (dcaa)	**10**	1.0	ug/l	1	02/23/23	U-01
Monobromoacetic acid (mbaa)	ND	1.0	ug/l	1	02/23/23	U-01

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Project Number: 23B0260

Project Manager: Theresa Trevizo

Reported:
04/27/2023 19:37

Sample Results

(Continued)

Sample: 23B0260-01
3B09037-01 (Water)

Sampled: 02/07/23 11:25 by Client

(Continued)

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Haloacetic Acids (HAAs) by GC/ECD (Continued)							
Method: EPA 552.3			**Instr:** GC05				
Batch ID: W3B1651	**Preparation:** EPA 552.3/Micro Ext. Drtz		**Prepared:** 02/21/23 08:41				**Analyst:** ecs
Monochloroacetic acid (mcaa)	**2.2**		2.0	ug/l	1	02/23/23	U-01
Tribromoacetic acid (tbaa)	ND		2.0	ug/l	1	02/23/23	U-01
Trichloroacetic acid (tcaa)	**5.4**		1.0	ug/l	1	02/23/23	U-01
Surrogate(s)							
2-Bromobutyric acid	*101%*	*Conc: 10.1*	*70-130*			*02/23/23*	
Semivolatile Organic Compounds by GC/MS							
Method: EPA 525.2			**Instr:** GCMS16				
Batch ID: W3B1650	**Preparation:** EPA 525.2/SPE		**Prepared:** 02/21/23 08:21				**Analyst:** rmr
Alachlor	ND		0.10	ug/l	1	02/28/23	U-01
Atrazine	ND		0.10	ug/l	1	02/28/23	U-01
Benzo (a) pyrene	ND		0.10	ug/l	1	02/28/23	U-01
Bis(2-ethylhexyl)adipate	ND		5.0	ug/l	1	02/28/23	U-01
Bis(2-ethylhexyl)phthalate	ND		3.0	ug/l	1	02/28/23	U-01
Bromacil	ND		0.50	ug/l	1	02/28/23	U-01
Butachlor	ND		0.10	ug/l	1	02/28/23	U-01
Captan	ND		1.0	ug/l	1	02/28/23	U-01
Chlorpropham	ND		0.10	ug/l	1	02/28/23	U-01
Diazinon	ND		0.10	ug/l	1	02/28/23	U-01
Dimethoate	ND		0.20	ug/l	1	02/28/23	U-01
Diphenamid	ND		0.10	ug/l	1	02/28/23	U-01
Disulfoton	ND		0.10	ug/l	1	02/28/23	U-01
EPTC	ND		0.10	ug/l	1	02/28/23	U-01
Hexachlorocyclopentadiene	ND		1.0	ug/l	1	02/28/23	U-01
Metolachlor	ND		0.10	ug/l	1	02/28/23	U-01
Metribuzin	ND		0.10	ug/l	1	02/28/23	U-01
Molinate	ND		0.10	ug/l	1	02/28/23	U-01
Prometryn	ND		0.10	ug/l	1	02/28/23	U-01
Simazine	ND		0.10	ug/l	1	02/28/23	U-01
Terbacil	ND		2.0	ug/l	1	02/28/23	U-01
Thiobencarb	ND		0.10	ug/l	1	02/28/23	U-01
Trithion	ND		0.10	ug/l	1	02/28/23	U-01
Surrogate(s)							
1,3-Dimethyl-2-nitrobenzene	*99%*	*Conc: 4.99*	*70-130*			*02/28/23*	
Perylene-d12	*98%*	*Conc: 4.95*	*50-120*			*02/28/23*	
Triphenyl phosphate	*170%*	*Conc: 8.58*	*70-130*			*02/28/23*	*S-11*

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Project Number: 23B0260

Project Manager: Theresa Trevizo

Reported:
04/27/2023 19:37

Sample Results

(Continued)

Sample: 23B0260-01
3B09037-01 (Water)

Sampled: 02/07/23 11:25 by Client
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Semivolatile Organics - Low Level by GC/MS SIM Mode						
Method: EPA 625.1		**Instr:** GCMS06				
Batch ID: W3B1649 **Preparation:** EPA 625/L-L SF		**Prepared:** 02/21/23 08:16				**Analyst:** rmr
1-Methylnaphthalene	ND	0.10	ug/l	1	03/30/23	O-05
2-Methylnaphthalene	ND	0.10	ug/l	1	03/30/23	O-05
Acenaphthene	ND	0.10	ug/l	1	03/30/23	O-05
Acenaphthylene	ND	0.10	ug/l	1	03/30/23	O-05
Anthracene	ND	0.10	ug/l	1	03/30/23	O-05
Benzo (a) anthracene	ND	0.10	ug/l	1	03/30/23	O-05
Benzo (a) pyrene	ND	0.10	ug/l	1	03/30/23	O-05
Benzo (b) fluoranthene	ND	0.10	ug/l	1	03/30/23	O-05
Benzo (g,h,i) perylene	ND	0.10	ug/l	1	03/30/23	O-05
Benzo (k) fluoranthene	ND	0.10	ug/l	1	03/30/23	O-05
Chrysene	ND	0.10	ug/l	1	03/30/23	O-05
Dibenzo (a,h) anthracene	ND	0.10	ug/l	1	03/30/23	O-05
Fluoranthene	ND	0.10	ug/l	1	03/30/23	O-05
Fluorene	ND	0.10	ug/l	1	03/30/23	O-05
Indeno (1,2,3-cd) pyrene	ND	0.10	ug/l	1	03/30/23	O-05
Naphthalene	ND	0.10	ug/l	1	03/30/23	O-05
Phenanthrene	ND	0.10	ug/l	1	03/30/23	O-05
Pyrene	ND	0.10	ug/l	1	03/30/23	O-05
Surrogate(s)						
2-Fluorobiphenyl	*72%*	*Conc: 3.64*	*22-120*		*03/30/23*	
Nitrobenzene-d5	*67%*	*Conc: 3.40*	*47-120*		*03/30/23*	
Terphenyl-d14	*80%*	*Conc: 4.07*	*44-129*		*03/30/23*	
Volatile Organic Compounds by P&T and GC/MS						
Method: EPA 524.2		**Instr:** GCMS08				
Batch ID: W3B1336 **Preparation:** EPA 5030B		**Prepared:** 02/15/23 15:51				**Analyst:** ADM
1,1,1,2-Tetrachloroethane	ND	0.50	ug/l	1	02/16/23	P-3
1,1,1-Trichloroethane	ND	0.50	ug/l	1	02/16/23	P-3
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	1	02/16/23	P-3
1,1,2-Trichloroethane	ND	0.50	ug/l	1	02/16/23	P-3
1,1-Dichloroethane	ND	0.50	ug/l	1	02/16/23	P-3
1,1-Dichloroethene	ND	0.50	ug/l	1	02/16/23	P-3
1,1-Dichloropropene	ND	0.50	ug/l	1	02/16/23	P-3
1,2,3-Trichlorobenzene	ND	0.50	ug/l	1	02/16/23	P-3
1,2,4-Trichlorobenzene	ND	0.50	ug/l	1	02/16/23	P-3
1,2,4-Trimethylbenzene	ND	0.50	ug/l	1	02/16/23	P-3
1,2-Dichloroethane	ND	0.50	ug/l	1	02/16/23	P-3

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Project Number: 23B0260

Project Manager: Theresa Trevizo

Reported:
04/27/2023 19:37

Sample Results

(Continued)

Sample: 23B0260-01
3B09037-01 (Water)

Sampled: 02/07/23 11:25 by Client
(Continued)

Volatile Organic Compounds by P&T and GC/MS (Continued)

Method: EPA 524.2 **Instr:** GCMS08

Batch ID: W3B1336 **Preparation:** EPA 5030B **Prepared:** 02/15/23 15:51 **Analyst:** ADM

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,2-Dichloropropane	ND	0.50	ug/l	1	02/16/23	P-3
1,3,5-Trimethylbenzene	ND	0.50	ug/l	1	02/16/23	P-3
1,3-Dichloropropane	ND	0.50	ug/l	1	02/16/23	P-3
1,3-Dichloropropene, Total	ND	0.50	ug/l	1	02/16/23	P-3
2,2-Dichloropropane	ND	0.50	ug/l	1	02/16/23	P-3
2-Butanone	ND	5.0	ug/l	1	02/16/23	P-3
2-Chlorotoluene	ND	0.50	ug/l	1	02/16/23	P-3
2-Hexanone	ND	5.0	ug/l	1	02/16/23	P-3
4-Chlorotoluene	ND	0.50	ug/l	1	02/16/23	P-3
4-Methyl-2-pentanone	ND	5.0	ug/l	1	02/16/23	P-3
Benzene	ND	0.50	ug/l	1	02/16/23	P-3
Bromobenzene	ND	0.50	ug/l	1	02/16/23	P-3
Bromochloromethane	ND	0.50	ug/l	1	02/16/23	P-3
Bromodichloromethane	**7.1**	0.50	ug/l	1	02/16/23	P-3
Bromoform	ND	0.50	ug/l	1	02/16/23	P-3
Bromomethane	ND	0.50	ug/l	1	02/16/23	P-3
Carbon tetrachloride	ND	0.50	ug/l	1	02/16/23	P-3
Chlorobenzene	ND	0.50	ug/l	1	02/16/23	P-3
Chloroethane	ND	0.50	ug/l	1	02/16/23	P-3
Chloroform	**21**	0.50	ug/l	1	02/16/23	P-3
Chloromethane	ND	0.50	ug/l	1	02/16/23	P-3
cis-1,2-Dichloroethene	ND	0.50	ug/l	1	02/16/23	P-3
cis-1,3-Dichloropropene	ND	0.50	ug/l	1	02/16/23	P-3
Dibromochloromethane	**1.3**	0.50	ug/l	1	02/16/23	P-3
Dibromomethane	ND	0.50	ug/l	1	02/16/23	P-3
Dichlorodifluoromethane (Freon 12)	ND	0.50	ug/l	1	02/16/23	P-3
Di-isopropyl ether	ND	2.0	ug/l	1	02/16/23	P-3
Ethyl tert-butyl ether	ND	2.0	ug/l	1	02/16/23	P-3
Ethylbenzene	ND	0.50	ug/l	1	02/16/23	P-3
Freon 113	ND	5.0	ug/l	1	02/16/23	P-3
Hexachlorobutadiene	ND	0.50	ug/l	1	02/16/23	P-3
Isopropylbenzene	ND	0.50	ug/l	1	02/16/23	P-3
m,p-Xylene	ND	0.50	ug/l	1	02/16/23	P-3
m-Dichlorobenzene	ND	0.50	ug/l	1	02/16/23	P-3
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/l	1	02/16/23	P-3

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1824 1st Street
San Fernando, CA 91340

Project Number: 23B0260

Project Manager: Theresa Trevizo

Reported:
04/27/2023 19:37

Sample Results

(Continued)

Sample: 23B0260-01
3B09037-01 (Water)

Sampled: 02/07/23 11:25 by Client
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Volatile Organic Compounds by P&T and GC/MS (Continued)						
Method: EPA 524.2		**Instr:** GCMS08				
Batch ID: W3B1336 **Preparation:** EPA 5030B		**Prepared:** 02/15/23 15:51				**Analyst:** ADM
Methylene chloride	ND	0.50	ug/l	1	02/16/23	P-3
Naphthalene	ND	0.50	ug/l	1	02/16/23	P-3
n-Butylbenzene	ND	0.50	ug/l	1	02/16/23	P-3
n-Propylbenzene	ND	0.50	ug/l	1	02/16/23	P-3
o-Dichlorobenzene	ND	0.50	ug/l	1	02/16/23	P-3
o-Xylene	ND	0.50	ug/l	1	02/16/23	P-3
p-Dichlorobenzene	ND	0.50	ug/l	1	02/16/23	P-3
p-Isopropyltoluene	ND	0.50	ug/l	1	02/16/23	P-3
sec-Butylbenzene	ND	0.50	ug/l	1	02/16/23	P-3
Styrene	ND	0.50	ug/l	1	02/16/23	P-3
Tert-amyl methyl ether	ND	2.0	ug/l	1	02/16/23	P-3
tert-Butylbenzene	ND	0.50	ug/l	1	02/16/23	P-3
Tetrachloroethene	ND	0.50	ug/l	1	02/16/23	P-3
THMs, Total	**29**	0.50	ug/l	1	02/16/23	P-3
Toluene	ND	0.50	ug/l	1	02/16/23	P-3
trans-1,2-Dichloroethene	ND	0.50	ug/l	1	02/16/23	P-3
trans-1,3-Dichloropropene	ND	0.50	ug/l	1	02/16/23	P-3
Trichloroethene	ND	0.50	ug/l	1	02/16/23	P-3
Trichlorofluoromethane	ND	0.50	ug/l	1	02/16/23	P-3
Vinyl chloride	ND	0.50	ug/l	1	02/16/23	P-3
Xylenes, Total	ND	0.50	ug/l	1	02/16/23	P-3
Surrogate(s)						
1,2-Dichlorobenzene-d4	*113%*	*Conc: 11.3*	*70-130*		*02/16/23*	
4-Bromofluorobenzene	*111%*	*Conc: 11.1*	*70-130*		*02/16/23*	
Volatile Organics by P&T and GC/MS						
Method: EPA 524.3		**Instr:** GCMS12				
Batch ID: W3B1698 **Preparation:** Method (P+T)		**Prepared:** 02/21/23 11:49				**Analyst:** ADM
1,2-Dibromo-3-chloropropane	ND	0.010	ug/l	1	02/22/23	O-04, U-01
1,2-Dibromoethane (EDB)	ND	0.020	ug/l	1	02/22/23	O-04, U-01
Surrogate(s)						
1,2-Dichlorobenzene-d4	*97%*	*Conc: 0.390*	*70-130*		*02/22/23*	
4-Bromofluorobenzene	*103%*	*Conc: 0.412*	*70-130*		*02/22/23*	

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Project Number: 23B0260

Project Manager: Theresa Trevizo

Reported:
04/27/2023 19:37

Quality Control Results

Chlorinated Acids Herbicides by GC/ECD

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1330 - EPA 515.4										
Blank (W3B1330-BLK1)				**Prepared: 02/16/23 Analyzed: 02/25/23**						
2,4,5-T	ND	0.20	ug/l							
2,4,5-TP (Silvex)	ND	0.20	ug/l							
2,4-D	ND	0.40	ug/l							
2,4-DB	ND	2.0	ug/l							
3,5-Dichlorobenzoic acid	ND	1.0	ug/l							
Acifluorfen	ND	0.40	ug/l							
Bentazon	ND	2.0	ug/l							
Dalapon	ND	0.40	ug/l							
DCPA	ND	0.10	ug/l							
Dicamba	ND	0.60	ug/l							
Dichloroprop	ND	0.30	ug/l							
Dinoseb	ND	0.40	ug/l							
Pentachlorophenol	ND	0.20	ug/l							
Picloram	ND	0.60	ug/l							
Surrogate(s)										
2,4-DCAA	*10.2*		*ug/l*	*10.0*		*102*	*70-130*			
Blank (W3B1330-BLK2)				**Prepared: 02/16/23 Analyzed: 03/06/23**						
2,4,5-T	ND	0.20	ug/l							QC-2
2,4,5-TP (Silvex)	ND	0.20	ug/l							QC-2
2,4-D	ND	0.40	ug/l							QC-2
2,4-DB	ND	2.0	ug/l							QC-2
3,5-Dichlorobenzoic acid	ND	1.0	ug/l							QC-2
Acifluorfen	ND	0.40	ug/l							QC-2
Bentazon	ND	2.0	ug/l							QC-2
Dalapon	ND	0.40	ug/l							QC-2
DCPA	ND	0.10	ug/l							QC-2
Dicamba	ND	0.60	ug/l							QC-2
Dichloroprop	ND	0.30	ug/l							QC-2
Dinoseb	ND	0.40	ug/l							QC-2
Pentachlorophenol	ND	0.20	ug/l							QC-2
Picloram	ND	0.60	ug/l							QC-2
Surrogate(s)										
2,4-DCAA	*10.5*		*ug/l*	*10.0*		*105*	*70-130*			*QC-2*
LCS (W3B1330-BS1)				**Prepared: 02/16/23 Analyzed: 02/25/23**						
2,4,5-T	4.16	0.20	ug/l	4.00		104	70-130			
2,4,5-TP (Silvex)	3.92	0.20	ug/l	4.00		98	70-130			
2,4-D	7.57	0.40	ug/l	8.00		95	70-130			
2,4-DB	17.0	2.0	ug/l	16.0		107	70-130			
3,5-Dichlorobenzoic acid	7.59	1.0	ug/l	8.00		95	70-130			

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Pat-Chem Laboratories, Inc.
1824 1st Street
San Fernando, CA 91340

Project Number: 23B0260

Project Manager: Theresa Trevizo

Reported:
04/27/2023 19:37

Quality Control Results

(Continued)

Chlorinated Acids Herbicides by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1330 - EPA 515.4 (Continued)										
LCS (W3B1330-BS1)				**Prepared: 02/16/23 Analyzed: 02/25/23**						
Acifluorfen	4.03	0.40	ug/l	4.00		101	70-130			
Bentazon	15.6	2.0	ug/l	16.0		98	70-130			
Dalapon	7.40	0.40	ug/l	8.00		93	70-130			
DCPA	3.94	0.10	ug/l	4.00		98	70-130			
Dicamba	7.76	0.60	ug/l	8.00		97	70-130			
Dichloroprop	7.55	0.30	ug/l	8.00		94	70-130			
Dinoseb	3.76	0.40	ug/l	4.00		94	70-130			
Pentachlorophenol	3.95	0.20	ug/l	4.00		99	70-130			
Picloram	4.31	0.60	ug/l	4.00		108	70-130			
Surrogate(s)										
2,4-DCAA	*9.72*		*ug/l*	*10.0*		*97*	*70-130*			
LCS (W3B1330-BS2)				**Prepared: 02/16/23 Analyzed: 03/06/23**						
2,4,5-T	3.97	0.20	ug/l	4.00		99	70-130			QC-2
2,4,5-TP (Silvex)	4.02	0.20	ug/l	4.00		101	70-130			QC-2
2,4-D	8.21	0.40	ug/l	8.00		103	70-130			QC-2
2,4-DB	16.7	2.0	ug/l	16.0		105	70-130			QC-2
3,5-Dichlorobenzoic acid	7.83	1.0	ug/l	8.00		98	70-130			QC-2
Acifluorfen	4.26	0.40	ug/l	4.00		107	70-130			QC-2
Bentazon	17.5	2.0	ug/l	16.0		109	70-130			QC-2
Dalapon	8.45	0.40	ug/l	8.00		106	70-130			QC-2
DCPA	4.03	0.10	ug/l	4.00		101	70-130			QC-2
Dicamba	7.87	0.60	ug/l	8.00		98	70-130			QC-2
Dichloroprop	8.04	0.30	ug/l	8.00		100	70-130			QC-2
Dinoseb	4.24	0.40	ug/l	4.00		106	70-130			QC-2
Pentachlorophenol	3.80	0.20	ug/l	4.00		95	70-130			QC-2
Picloram	4.15	0.60	ug/l	4.00		104	70-130			QC-2
Surrogate(s)										
2,4-DCAA	*10.1*		*ug/l*	*10.0*		*101*	*70-130*			QC-2
Matrix Spike (W3B1330-MS1)	**Source: 3A19167-03**			**Prepared: 02/16/23 Analyzed: 03/06/23**						
2,4,5-T	4.45	0.20	ug/l	4.00	ND	111	70-130			
2,4,5-TP (Silvex)	4.29	0.20	ug/l	4.00	ND	107	70-130			
2,4-D	9.26	0.40	ug/l	8.00	ND	116	70-130			
2,4-DB	17.3	2.0	ug/l	16.0	ND	108	70-130			
3,5-Dichlorobenzoic acid	7.00	1.0	ug/l	8.00	ND	88	70-130			
Acifluorfen	5.93	0.40	ug/l	4.00	ND	148	70-130			MS-01
Bentazon	20.4	2.0	ug/l	16.0	ND	128	70-130			
Dalapon	8.03	0.40	ug/l	8.00	0.653	92	70-130			
DCPA	4.31	0.10	ug/l	4.00	ND	108	70-130			
Dicamba	9.66	0.60	ug/l	8.00	ND	121	70-130			

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Quality Control Results

(Continued)

Chlorinated Acids Herbicides by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1330 - EPA 515.4 (Continued)										
Matrix Spike (W3B1330-MS1)	**Source: 3A19167-03**			**Prepared: 02/16/23**	**Analyzed: 03/06/23**					
Dichloroprop	10.9	0.30	ug/l	8.00	ND	136	70-130			MS-01
Dinoseb	5.28	0.40	ug/l	4.00	ND	132	70-130			MS-01
Pentachlorophenol	3.63	0.20	ug/l	4.00	ND	91	70-130			
Picloram	5.07	0.60	ug/l	4.00	ND	127	70-130			
Surrogate(s)										
2,4-DCAA	*9.71*		*ug/l*	*10.0*		*97*	*70-130*			
Matrix Spike Dup (W3B1330-MSD1)	**Source: 3A19167-03**			**Prepared: 02/16/23**	**Analyzed: 02/25/23**					
2,4,5-T	4.59	0.20	ug/l	4.00	ND	115	70-130	3	30	
2,4,5-TP (Silvex)	4.31	0.20	ug/l	4.00	ND	108	70-130	0.5	30	
2,4-D	8.90	0.40	ug/l	8.00	ND	111	70-130	4	30	
2,4-DB	17.3	2.0	ug/l	16.0	ND	108	70-130	0.01	30	
3,5-Dichlorobenzoic acid	6.89	1.0	ug/l	8.00	ND	86	70-130	2	30	
Acifluorfen	4.96	0.40	ug/l	4.00	ND	124	70-130	18	30	
Bentazon	18.7	2.0	ug/l	16.0	ND	117	70-130	9	30	
Dalapon	8.75	0.40	ug/l	8.00	0.653	101	70-130	9	30	
DCPA	4.47	0.10	ug/l	4.00	ND	112	70-130	4	30	
Dicamba	9.99	0.60	ug/l	8.00	ND	125	70-130	3	30	
Dichloroprop	10.7	0.30	ug/l	8.00	ND	133	70-130	2	30	MS-01
Dinoseb	4.37	0.40	ug/l	4.00	ND	109	70-130	19	30	
Pentachlorophenol	3.84	0.20	ug/l	4.00	ND	96	70-130	6	30	
Picloram	4.83	0.60	ug/l	4.00	ND	121	70-130	5	30	
Surrogate(s)										
2,4-DCAA	*9.69*		*ug/l*	*10.0*		*97*	*70-130*			

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Quality Control Results

(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1238 - EPA 608.3										
Blank (W3B1238-BLK1)				**Prepared: 02/15/23 Analyzed: 03/06/23**						
4,4´-DDD	ND	0.050	ug/l							
4,4´-DDE	ND	0.050	ug/l							
4,4´-DDT	ND	0.050	ug/l							
Aldrin	ND	0.050	ug/l							
alpha-BHC	ND	0.050	ug/l							
Aroclor 1016	ND	1.0	ug/l							
Aroclor 1221	ND	1.0	ug/l							
Aroclor 1232	ND	1.0	ug/l							
Aroclor 1242	ND	1.0	ug/l							
Aroclor 1248	ND	1.0	ug/l							
Aroclor 1254	ND	1.0	ug/l							
Aroclor 1260	ND	1.0	ug/l							
beta-BHC	ND	0.050	ug/l							
Chlordane (tech)	ND	0.50	ug/l							
delta-BHC	ND	0.050	ug/l							
Dieldrin	ND	0.050	ug/l							
Endosulfan I	ND	0.050	ug/l							
Endosulfan II	ND	0.050	ug/l							
Endosulfan sulfate	ND	0.050	ug/l							
Endrin	ND	0.050	ug/l							
Endrin aldehyde	ND	0.050	ug/l							
gamma-BHC (Lindane)	ND	0.050	ug/l							
Heptachlor	ND	0.050	ug/l							
Heptachlor epoxide	ND	0.050	ug/l							
Methoxychlor	ND	0.050	ug/l							
Toxaphene	ND	2.0	ug/l							
Surrogate(s)										
Decachlorobiphenyl	*0.0684*		*ug/l*	*0.100*		*68*	*33-133*			
Tetrachloro-meta-xylene	*0.0570*		*ug/l*	*0.100*		*57*	*32-130*			
LCS (W3B1238-BS1)				**Prepared: 02/15/23 Analyzed: 03/06/23**						
4,4´-DDD	0.0705	0.050	ug/l	0.100		70	48-130			
4,4´-DDE	0.0487	0.050	ug/l	0.100		49	54-130			Q-02
4,4´-DDT	0.0712	0.050	ug/l	0.100		71	46-137			
Aldrin	0.0596	0.050	ug/l	0.100		60	54-130			
alpha-BHC	0.0627	0.050	ug/l	0.100		63	49-130			
beta-BHC	0.0656	0.050	ug/l	0.100		66	39-130			
delta-BHC	0.0613	0.050	ug/l	0.100		61	51-130			
Dieldrin	0.0596	0.050	ug/l	0.100		60	58-130			
Endosulfan I	0.0581	0.050	ug/l	0.100		58	57-141			

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Quality Control Results

(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1238 - EPA 608.3 (Continued)										
LCS (W3B1238-BS1)				**Prepared: 02/15/23**	**Analyzed: 03/06/23**					
Endosulfan II	0.0646	0.050	ug/l	0.100		65	22-171			
Endosulfan sulfate	0.0666	0.050	ug/l	0.100		67	38-132			
Endrin	0.0671	0.050	ug/l	0.100		67	51-130			
Endrin aldehyde	0.0472	0.050	ug/l	0.100		47	18-130			
gamma-BHC (Lindane)	0.0653	0.050	ug/l	0.100		65	43-130			
Heptachlor	0.0646	0.050	ug/l	0.100		65	43-130			
Heptachlor epoxide	0.0698	0.050	ug/l	0.100		70	57-132			
Methoxychlor	0.0451	0.050	ug/l	0.100		45	50-130			Q-02
Surrogate(s)										
Decachlorobiphenyl	*0.0735*		*ug/l*	*0.100*		*73*	*33-133*			
Tetrachloro-meta-xylene	*0.0610*		*ug/l*	*0.100*		*61*	*32-130*			
Matrix Spike (W3B1238-MS1)	**Source: 3B10064-01**			**Prepared: 02/15/23**	**Analyzed: 03/06/23**					
4,4´-DDD	0.0516	0.50	ug/l	0.109	ND	48	31-141			M-04
4,4´-DDE	0.0447	0.50	ug/l	0.109	ND	41	30-145			M-04
4,4´-DDT	0.0751	0.50	ug/l	0.109	ND	69	25-160			M-04
Aldrin	0.0737	0.50	ug/l	0.109	ND	68	42-140			M-04
alpha-BHC	0.0544	0.50	ug/l	0.109	ND	50	37-140			M-04
beta-BHC	0.0335	0.50	ug/l	0.109	ND	31	17-147			M-04
delta-BHC	0.0685	0.50	ug/l	0.109	ND	63	19-140			M-04
Dieldrin	0.0472	0.50	ug/l	0.109	ND	44	36-146			M-04
Endosulfan I	0.0623	0.50	ug/l	0.109	ND	57	45-153			M-04
Endosulfan II	0.0658	0.50	ug/l	0.109	ND	61	17-202			M-04
Endosulfan sulfate	0.0476	0.50	ug/l	0.109	ND	44	26-144			M-04
Endrin	0.0455	0.50	ug/l	0.109	ND	42	30-147			M-04
Endrin aldehyde	0.0408	0.50	ug/l	0.109	ND	38	11-140			M-04
gamma-BHC (Lindane)	0.0534	0.50	ug/l	0.109	ND	49	32-140			M-04
Heptachlor	0.0492	0.50	ug/l	0.109	ND	45	34-140			M-04
Heptachlor epoxide	0.0368	0.50	ug/l	0.109	ND	34	37-142			M-04, MS-01
Methoxychlor	0.0364	0.50	ug/l	0.109	ND	34	50-140			M-04, MS-01
Surrogate(s)										
Decachlorobiphenyl	*0.0582*		*ug/l*	*0.109*		*54*	*33-133*			
Tetrachloro-meta-xylene	*0.0715*		*ug/l*	*0.109*		*66*	*32-130*			
Matrix Spike Dup (W3B1238-MSD1)	**Source: 3B10064-01**			**Prepared: 02/15/23**	**Analyzed: 03/06/23**					
4,4´-DDD	0.0399	0.50	ug/l	0.106	ND	38	31-141	26	30	M-04
4,4´-DDE	0.0325	0.50	ug/l	0.106	ND	31	30-145	32	30	M-04, R-02
4,4´-DDT	0.0554	0.50	ug/l	0.106	ND	52	25-160	30	30	M-04
Aldrin	0.0433	0.50	ug/l	0.106	ND	41	42-140	52	30	M-04, MS-01, R-02
alpha-BHC	0.0580	0.50	ug/l	0.106	ND	55	37-140	6	30	M-04

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Quality Control Results

(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1238 - EPA 608.3 (Continued)										
Matrix Spike Dup (W3B1238-MSD1)	**Source: 3B10064-01**			**Prepared: 02/15/23**	**Analyzed: 03/06/23**					
beta-BHC	0.0337	0.50	ug/l	0.106	ND	32	17-147	0.5	30	M-04
delta-BHC	0.0677	0.50	ug/l	0.106	ND	64	19-140	1	30	M-04
Dieldrin	0.0357	0.50	ug/l	0.106	ND	34	36-146	28	30	M-04, MS-01
Endosulfan I	0.0516	0.50	ug/l	0.106	ND	49	45-153	19	30	M-04
Endosulfan II	0.0527	0.50	ug/l	0.106	ND	50	17-202	22	30	M-04
Endosulfan sulfate	0.0485	0.50	ug/l	0.106	ND	46	26-144	2	30	M-04
Endrin	0.0412	0.50	ug/l	0.106	ND	39	30-147	10	30	M-04
Endrin aldehyde	0.0440	0.50	ug/l	0.106	ND	42	11-140	7	30	M-04
gamma-BHC (Lindane)	0.0665	0.50	ug/l	0.106	ND	63	32-140	22	30	M-04
Heptachlor	0.0386	0.50	ug/l	0.106	ND	37	34-140	24	30	M-04
Heptachlor epoxide	0.0341	0.50	ug/l	0.106	ND	32	37-142	7	30	M-04, MS-01
Methoxychlor	0.0270	0.50	ug/l	0.106	ND	25	50-140	200	30	M-04, MS-01, R-03
Surrogate(s)										
Decachlorobiphenyl	*0.0275*		*ug/l*	*0.106*		*26*	*33-133*			*S-GC*
Tetrachloro-meta-xylene	*0.0635*		*ug/l*	*0.106*		*60*	*32-130*			
Batch: W3B1518 - EPA 508.1										
Blank (W3B1518-BLK1)				**Prepared: 02/17/23**	**Analyzed: 03/02/23**					
4,4´-DDD	ND	0.010	ug/l							
4,4´-DDE	ND	0.010	ug/l							
4,4´-DDT	ND	0.010	ug/l							
Aldrin	ND	0.010	ug/l							
alpha-BHC	ND	0.010	ug/l							
Aroclor 1016	ND	0.10	ug/l							
Aroclor 1221	ND	0.10	ug/l							
Aroclor 1232	ND	0.10	ug/l							
Aroclor 1242	ND	0.10	ug/l							
Aroclor 1248	ND	0.10	ug/l							
Aroclor 1254	ND	0.10	ug/l							
Aroclor 1260	ND	0.10	ug/l							
beta-BHC	ND	0.010	ug/l							
Chlordane (tech)	ND	0.10	ug/l							
Chlorothalonil	ND	0.050	ug/l							
delta-BHC	ND	0.010	ug/l							
Dieldrin	ND	0.010	ug/l							
Endosulfan I	ND	0.010	ug/l							
Endosulfan II	ND	0.010	ug/l							
Endosulfan sulfate	ND	0.010	ug/l							

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Quality Control Results

(Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1518 - EPA 508.1 (Continued)										
Blank (W3B1518-BLK1)				**Prepared: 02/17/23 Analyzed: 03/02/23**						
Endrin	ND	0.010	ug/l							
Endrin aldehyde	ND	0.010	ug/l							
gamma-BHC (Lindane)	ND	0.010	ug/l							
Heptachlor	ND	0.010	ug/l							
Heptachlor epoxide	ND	0.010	ug/l							
Hexachlorobenzene	ND	0.050	ug/l							
Hexachlorocyclopentadiene	ND	0.050	ug/l							
Methoxychlor	ND	0.010	ug/l							
PCBs, Total	ND	0.50	ug/l							
Propachlor	ND	0.050	ug/l							
Toxaphene	ND	1.0	ug/l							
Trifluralin	ND	0.010	ug/l							
Surrogate(s)										
4,4-Dibromobiphenyl	*0.0841*		*ug/l*	*0.100*		*84*	*70-130*			
LCS (W3B1518-BS1)				**Prepared: 02/17/23 Analyzed: 03/02/23**						
4,4´-DDD	0.0994	0.010	ug/l	0.100		99	70-130			
4,4´-DDE	0.0839	0.010	ug/l	0.100		84	70-130			
4,4´-DDT	0.102	0.010	ug/l	0.100		102	70-130			
Aldrin	0.0583	0.010	ug/l	0.100		58	50-130			
alpha-BHC	0.101	0.010	ug/l	0.100		101	70-130			
beta-BHC	0.0979	0.010	ug/l	0.100		98	70-130			
delta-BHC	0.103	0.010	ug/l	0.100		103	70-130			
Dieldrin	0.0837	0.010	ug/l	0.100		84	70-130			
Endosulfan I	0.0799	0.010	ug/l	0.100		80	70-130			
Endosulfan II	0.0826	0.010	ug/l	0.100		83	70-130			
Endosulfan sulfate	0.0734	0.010	ug/l	0.100		73	70-130			
Endrin	0.0986	0.010	ug/l	0.100		99	70-130			
Endrin aldehyde	0.0723	0.010	ug/l	0.100		72	70-130			
gamma-BHC (Lindane)	0.0931	0.010	ug/l	0.100		93	70-130			
Heptachlor	0.0941	0.010	ug/l	0.100		94	70-130			
Heptachlor epoxide	0.0927	0.010	ug/l	0.100		93	70-130			
Methoxychlor	0.0955	0.010	ug/l	0.100		96	70-130			
Surrogate(s)										
4,4-Dibromobiphenyl	*0.0891*		*ug/l*	*0.100*		*89*	*70-130*			
LCS (W3B1518-BS2)				**Prepared: 02/17/23 Analyzed: 03/03/23**						
Chlordane (tech)	0.940	0.10	ug/l	1.00		94	70-130			
Surrogate(s)										
4,4-Dibromobiphenyl	*0.0881*		*ug/l*	*0.100*		*88*	*70-130*			
LCS Dup (W3B1518-BSD1)				**Prepared: 02/17/23 Analyzed: 03/03/23**						
4,4´-DDD	0.0961	0.010	ug/l	0.100		96	70-130	3	30	

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Quality Control Results (Continued)

Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1518 - EPA 508.1 (Continued)										
LCS Dup (W3B1518-BSD1)				**Prepared: 02/17/23**	**Analyzed: 03/03/23**					
4,4´-DDE	0.0822	0.010	ug/l	0.100		82	70-130	2	30	
4,4´-DDT	0.0999	0.010	ug/l	0.100		100	70-130	2	30	
Aldrin	0.0665	0.010	ug/l	0.100		67	50-130	13	30	
alpha-BHC	0.0989	0.010	ug/l	0.100		99	70-130	2	30	
beta-BHC	0.0966	0.010	ug/l	0.100		97	70-130	1	30	
delta-BHC	0.101	0.010	ug/l	0.100		101	70-130	2	30	
Dieldrin	0.0810	0.010	ug/l	0.100		81	70-130	3	30	
Endosulfan I	0.0775	0.010	ug/l	0.100		78	70-130	3	30	
Endosulfan II	0.0802	0.010	ug/l	0.100		80	70-130	3	30	
Endosulfan sulfate	0.0709	0.010	ug/l	0.100		71	70-130	3	30	
Endrin	0.0934	0.010	ug/l	0.100		93	70-130	5	30	
Endrin aldehyde	0.0741	0.010	ug/l	0.100		74	70-130	3	30	
gamma-BHC (Lindane)	0.0919	0.010	ug/l	0.100		92	70-130	1	30	
Heptachlor	0.0953	0.010	ug/l	0.100		95	70-130	1	30	
Heptachlor epoxide	0.0904	0.010	ug/l	0.100		90	70-130	2	30	
Methoxychlor	0.0940	0.010	ug/l	0.100		94	70-130	2	30	
Surrogate(s)										
4,4-Dibromobiphenyl	*0.0848*		*ug/l*	*0.100*		*85*	*70-130*			

Quality Control Results (Continued)

Diquat and Paraquat by EPA 549.2

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1244 - EPA 549.2										
Blank (W3B1244-BLK1)				**Prepared: 02/15/23**	**Analyzed: 03/03/23**					
Diquat	ND	4.0	ug/l							
LCS (W3B1244-BS1)				**Prepared: 02/15/23**	**Analyzed: 03/03/23**					
Diquat	14.5	4.0	ug/l	20.0		73	70-130			
Matrix Spike (W3B1244-MS1)	**Source: 2K17010-01**			**Prepared: 02/15/23**	**Analyzed: 03/03/23**					
Diquat	16.9	4.0	ug/l	20.0	ND	85	46-122			
Matrix Spike (W3B1244-MS2)	**Source: 3B15010-01**			**Prepared: 02/15/23**	**Analyzed: 03/03/23**					
Diquat	12.0	4.0	ug/l	20.0	ND	60	46-122			
Matrix Spike Dup (W3B1244-MSD1)	**Source: 2K17010-01**			**Prepared: 02/15/23**	**Analyzed: 03/03/23**					
Diquat	16.8	4.0	ug/l	20.0	ND	84	46-122	0.6	30	
Matrix Spike Dup (W3B1244-MSD2)	**Source: 3B15010-01**			**Prepared: 02/15/23**	**Analyzed: 03/03/23**					
Diquat	13.9	4.0	ug/l	20.0	ND	69	46-122	15	30	

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Quality Control Results (Continued)

Endothall By EPA 548.1

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1291 - EPA 548.1										
Blank (W3B1291-BLK1)				**Prepared: 02/15/23**	**Analyzed: 02/21/23**					
Endothall	ND	45	ug/l							
LCS (W3B1291-BS1)				**Prepared: 02/15/23**	**Analyzed: 02/21/23**					
Endothall	78.0	45	ug/l	100		78	31-117			
Matrix Spike (W3B1291-MS1)	**Source: 3B10111-01**			**Prepared: 02/15/23**	**Analyzed: 02/21/23**					
Endothall	64.2	90	ug/l	200	ND	32	0.1-109			
Matrix Spike Dup (W3B1291-MSD1)	**Source: 3B10111-01**			**Prepared: 02/15/23**	**Analyzed: 02/21/23**					
Endothall	53.3	90	ug/l	200	ND	27	0.1-109	18	30	

Quality Control Results (Continued)

Glyphosate by EPA 547

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1720 - EPA 547										
Blank (W3B1720-BLK1)				**Prepared & Analyzed: 02/21/23**						
Glyphosate	ND	5.0	ug/l							
LCS (W3B1720-BS1)				**Prepared & Analyzed: 02/21/23**						
Glyphosate	19.3	5.0	ug/l	25.0		77	70-130			
Matrix Spike (W3B1720-MS1)	**Source: 3A24009-04**			**Prepared & Analyzed: 02/21/23**						
Glyphosate	ND	5.0	ug/l	25.0	ND		41-149			MS-01
Matrix Spike (W3B1720-MS2)	**Source: 3A24009-05**			**Prepared & Analyzed: 02/21/23**						
Glyphosate	ND	5.0	ug/l	25.0	ND		41-149			MS-01
Matrix Spike Dup (W3B1720-MSD1)	**Source: 3A24009-04**			**Prepared & Analyzed: 02/21/23**						
Glyphosate	ND	5.0	ug/l	25.0	ND		41-149		30	MS-01
Matrix Spike Dup (W3B1720-MSD2)	**Source: 3A24009-05**			**Prepared & Analyzed: 02/21/23**						
Glyphosate	ND	5.0	ug/l	25.0	ND		41-149		30	MS-01

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Quality Control Results

(Continued)

Haloacetic Acids (HAAs) by GC/ECD

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1651 - EPA 552.3										
Blank (W3B1651-BLK1)				**Prepared: 02/21/23**	**Analyzed: 02/22/23**					
Bromochloroacetic acid (bcaa)	ND	1.0	ug/l							
Bromodichloroacetic acid (bdcaa)	ND	1.0	ug/l							
Chlorodibromoacetic acid (cdbaa)	ND	1.0	ug/l							
Dibromoacetic acid (dbaa)	ND	1.0	ug/l							
Dichloroacetic acid (dcaa)	ND	1.0	ug/l							
Monobromoacetic acid (mbaa)	ND	1.0	ug/l							
Monochloroacetic acid (mcaa)	ND	2.0	ug/l							
Tribromoacetic acid (tbaa)	ND	2.0	ug/l							
Trichloroacetic acid (tcaa)	ND	1.0	ug/l							
Surrogate(s)										
2-Bromobutyric acid	*9.91*		*ug/l*	*10.0*		*99*	*70-130*			
LCS (W3B1651-BS1)				**Prepared: 02/21/23**	**Analyzed: 02/23/23**					
Bromochloroacetic acid (bcaa)	9.95	1.0	ug/l	10.0		99	70-130			
Bromodichloroacetic acid (bdcaa)	9.04	1.0	ug/l	10.0		90	70-130			
Chlorodibromoacetic acid (cdbaa)	9.33	1.0	ug/l	10.0		93	70-130			
Dibromoacetic acid (dbaa)	9.90	1.0	ug/l	10.0		99	70-130			
Dichloroacetic acid (dcaa)	9.49	1.0	ug/l	10.0		95	70-130			
Monobromoacetic acid (mbaa)	9.69	1.0	ug/l	10.0		97	70-130			
Monochloroacetic acid (mcaa)	9.41	2.0	ug/l	10.0		94	70-130			
Tribromoacetic acid (tbaa)	9.23	2.0	ug/l	10.0		92	70-130			
Trichloroacetic acid (tcaa)	8.96	1.0	ug/l	10.0		90	70-130			
Surrogate(s)										
2-Bromobutyric acid	*9.96*		*ug/l*	*10.0*		*100*	*70-130*			
Matrix Spike (W3B1651-MS1)	**Source: 3B08093-01**			**Prepared: 02/21/23**	**Analyzed: 02/23/23**					
Bromochloroacetic acid (bcaa)	10.2	1.0	ug/l	10.0	ND	102	70-130			
Bromodichloroacetic acid (bdcaa)	9.03	1.0	ug/l	10.0	ND	90	70-130			
Chlorodibromoacetic acid (cdbaa)	9.18	1.0	ug/l	10.0	ND	92	70-130			
Dibromoacetic acid (dbaa)	10.1	1.0	ug/l	10.0	ND	101	70-130			
Dichloroacetic acid (dcaa)	9.55	1.0	ug/l	10.0	ND	96	70-130			
Monobromoacetic acid (mbaa)	9.75	1.0	ug/l	10.0	ND	97	70-130			
Monochloroacetic acid (mcaa)	9.54	2.0	ug/l	10.0	ND	95	70-130			
Tribromoacetic acid (tbaa)	9.21	2.0	ug/l	10.0	ND	92	70-130			
Trichloroacetic acid (tcaa)	8.94	1.0	ug/l	10.0	ND	89	70-130			
Surrogate(s)										
2-Bromobutyric acid	*10.3*		*ug/l*	*10.0*		*103*	*70-130*			
Matrix Spike Dup (W3B1651-MSD1)	**Source: 3B08093-01**			**Prepared: 02/21/23**	**Analyzed: 02/23/23**					
Bromochloroacetic acid (bcaa)	10.4	1.0	ug/l	10.0	ND	104	70-130	2	30	
Bromodichloroacetic acid (bdcaa)	9.69	1.0	ug/l	10.0	ND	97	70-130	7	30	
Chlorodibromoacetic acid (cdbaa)	10.0	1.0	ug/l	10.0	ND	100	70-130	9	30	
Dibromoacetic acid (dbaa)	10.5	1.0	ug/l	10.0	ND	105	70-130	3	30	

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Quality Control Results

(Continued)

Haloacetic Acids (HAAs) by GC/ECD (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1651 - EPA 552.3 (Continued)										
Matrix Spike Dup (W3B1651-MSD1)	**Source: 3B08093-01**			**Prepared: 02/21/23**	**Analyzed: 02/23/23**					
Dichloroacetic acid (dcaa)	9.52	1.0	ug/l	10.0	ND	95	70-130	0.3	30	
Monobromoacetic acid (mbaa)	9.79	1.0	ug/l	10.0	ND	98	70-130	0.4	30	
Monochloroacetic acid (mcaa)	9.58	2.0	ug/l	10.0	ND	96	70-130	0.4	30	
Tribromoacetic acid (tbaa)	10.1	2.0	ug/l	10.0	ND	101	70-130	9	30	
Trichloroacetic acid (tcaa)	9.25	1.0	ug/l	10.0	ND	92	70-130	3	30	
Surrogate(s)										
2-Bromobutyric acid	*10.0*		*ug/l*	*10.0*		*100*	*70-130*			

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Quality Control Results

(Continued)

Pesticides/Herbicides and Other Organic compounds by LC/MS/MS

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B2271 - EPA 8321A										
Blank (W3B2271-BLK1)				**Prepared & Analyzed: 02/28/23**						
3-Hydroxycarbofuran	ND	0.50	ug/l							
Aldicarb	ND	0.50	ug/l							
Aldicarb sulfone	ND	0.50	ug/l							
Aldicarb sulfoxide	ND	0.50	ug/l							
Carbaryl	ND	0.50	ug/l							
Carbofuran	ND	0.50	ug/l							
Diuron	ND	1.0	ug/l							
Methiocarb	ND	0.50	ug/l							
Methomyl	ND	0.50	ug/l							
Oxamyl	ND	0.50	ug/l							
Propoxur (Baygon)	ND	0.50	ug/l							
LCS (W3B2271-BS1)				**Prepared & Analyzed: 02/28/23**						
3-Hydroxycarbofuran	ND	0.50	ug/l	5.00			80-120			
Aldicarb	ND	0.50	ug/l	5.00			80-120			
Aldicarb sulfone	ND	0.50	ug/l	5.00			80-120			
Aldicarb sulfoxide	ND	0.50	ug/l	5.00			80-120			
Carbaryl	ND	0.50	ug/l	5.00			80-120			
Carbofuran	ND	0.50	ug/l	5.00			80-120			
Diuron	ND	1.0	ug/l	5.00			68-125			
Methiocarb	ND	0.50	ug/l	5.00			80-120			
Methomyl	ND	0.50	ug/l	5.00			80-120			
Oxamyl	ND	0.50	ug/l	5.00			80-120			
Propoxur (Baygon)	ND	0.50	ug/l	5.00			80-120			
Matrix Spike (W3B2271-MS1)	**Source: 3B09037-01**			**Prepared & Analyzed: 02/28/23**						
3-Hydroxycarbofuran	ND	0.50	ug/l	5.00	ND		65-135			
Aldicarb	ND	0.50	ug/l	5.00	ND		65-135			
Aldicarb sulfone	ND	0.50	ug/l	5.00	ND		65-135			
Aldicarb sulfoxide	ND	0.50	ug/l	5.00	ND		65-135			
Carbaryl	ND	0.50	ug/l	5.00	ND		65-135			
Carbofuran	ND	0.50	ug/l	5.00	ND		65-135			
Diuron	ND	1.0	ug/l	5.00	ND		58-160			
Methiocarb	ND	0.50	ug/l	5.00	ND		65-135			
Methomyl	ND	0.50	ug/l	5.00	ND		65-135			
Oxamyl	ND	0.50	ug/l	5.00	ND		65-135			
Propoxur (Baygon)	ND	0.50	ug/l	5.00	ND		65-135			
Matrix Spike Dup (W3B2271-MSD1)	**Source: 3B09037-01**			**Prepared & Analyzed: 02/28/23**						
3-Hydroxycarbofuran	ND	0.50	ug/l	5.00	ND		65-135		30	
Aldicarb	ND	0.50	ug/l	5.00	ND		65-135		30	
Aldicarb sulfone	ND	0.50	ug/l	5.00	ND		65-135		30	

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Quality Control Results

(Continued)

Pesticides/Herbicides and Other Organic compounds by LC/MS/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B2271 - EPA 8321A (Continued)										
Matrix Spike Dup (W3B2271-MSD1)	**Source: 3B09037-01**			**Prepared & Analyzed: 02/28/23**						
Aldicarb sulfoxide	ND	0.50	ug/l	5.00	ND		65-135		30	
Carbaryl	ND	0.50	ug/l	5.00	ND		65-135		30	
Carbofuran	ND	0.50	ug/l	5.00	ND		65-135		30	
Diuron	ND	1.0	ug/l	5.00	ND		58-160		30	
Methiocarb	ND	0.50	ug/l	5.00	ND		65-135		30	
Methomyl	ND	0.50	ug/l	5.00	ND		65-135		30	
Oxamyl	ND	0.50	ug/l	5.00	ND		65-135		30	
Propoxur (Baygon)	ND	0.50	ug/l	5.00	ND		65-135		30	

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Quality Control Results

(Continued)

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1650 - EPA 525.2										
Blank (W3B1650-BLK1)				**Prepared: 02/21/23 Analyzed: 02/27/23**						
Alachlor	ND	0.10	ug/l							
Atrazine	ND	0.10	ug/l							
Benzo (a) pyrene	ND	0.10	ug/l							
Bis(2-ethylhexyl)adipate	ND	5.0	ug/l							
Bis(2-ethylhexyl)phthalate	ND	3.0	ug/l							
Bromacil	ND	0.50	ug/l							
Butachlor	ND	0.10	ug/l							
Captan	ND	1.0	ug/l							
Chlorpropham	ND	0.10	ug/l							
Diazinon	ND	0.10	ug/l							
Dimethoate	ND	0.20	ug/l							
Diphenamid	ND	0.10	ug/l							
Disulfoton	ND	0.10	ug/l							
EPTC	ND	0.10	ug/l							
Hexachlorocyclopentadiene	ND	1.0	ug/l							
Metolachlor	ND	0.10	ug/l							
Metribuzin	ND	0.10	ug/l							
Molinate	ND	0.10	ug/l							
Naphthalene	ND	0.50	ug/l							
Prometryn	ND	0.10	ug/l							
Propachlor	ND	0.20	ug/l							
Simazine	ND	0.10	ug/l							
Terbacil	ND	2.0	ug/l							
Thiobencarb	ND	0.10	ug/l							
Trithion	ND	0.10	ug/l							
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene	*4.91*		*ug/l*	*5.00*		*98*	*70-130*			
Perylene-d12	*4.04*		*ug/l*	*5.00*		*81*	*50-120*			
Triphenyl phosphate	*5.76*		*ug/l*	*5.00*		*115*	*70-130*			
LCS (W3B1650-BS1)				**Prepared: 02/21/23 Analyzed: 02/27/23**						
Alachlor	6.88	0.10	ug/l	7.50		92	70-130			
Atrazine	5.65	0.10	ug/l	5.00		113	70-130			
Benzo (a) pyrene	5.25	0.10	ug/l	5.00		105	60-130			
Bis(2-ethylhexyl)adipate	5.90	5.0	ug/l	5.00		118	70-130			
Bis(2-ethylhexyl)phthalate	6.13	3.0	ug/l	5.00		123	70-130			
Bromacil	4.33	0.50	ug/l	5.00		87	70-130			
Butachlor	5.31	0.10	ug/l	5.00		106	70-130			
Captan	5.29	1.0	ug/l	5.00		106	70-130			
Chlorpropham	5.29	0.10	ug/l	5.00		106	70-130			

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Quality Control Results

(Continued)

Semivolatile Organic Compounds by GC/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1650 - EPA 525.2 (Continued)										
LCS (W3B1650-BS1)				**Prepared: 02/21/23**	**Analyzed: 02/27/23**					
Diazinon	4.55	0.10	ug/l	5.00		91	50-120			
Dimethoate	3.88	0.20	ug/l	5.00		78	50-120			
Diphenamid	5.89	0.10	ug/l	5.00		118	70-130			
Disulfoton	4.36	0.10	ug/l	5.00		87	50-120			
EPTC	5.49	0.10	ug/l	5.00		110	70-130			
Hexachlorocyclopentadiene	2.14	1.0	ug/l	2.50		85	33-106			
Metolachlor	5.29	0.10	ug/l	5.00		106	60-130			
Metribuzin	4.62	0.10	ug/l	5.00		92	50-120			
Molinate	5.38	0.10	ug/l	5.00		108	70-130			
Naphthalene	4.52	0.50	ug/l	5.00		90	70-130			
Prometryn	4.08	0.10	ug/l	5.00		82	30-120			
Propachlor	2.74	0.20	ug/l	2.50		110	70-130			
Simazine	4.83	0.10	ug/l	5.00		97	60-130			
Terbacil	5.02	2.0	ug/l	5.00		100	70-130			
Thiobencarb	4.53	0.10	ug/l	5.00		91	70-130			
Trithion	5.30	0.10	ug/l	5.00		106	70-130			
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene	*4.54*		*ug/l*	*5.00*		*91*	*70-130*			
Perylene-d12	*4.21*		*ug/l*	*5.00*		*84*	*50-120*			
Triphenyl phosphate	*6.83*		*ug/l*	*5.00*		*137*	*70-130*			*S-11*
LCS Dup (W3B1650-BSD1)				**Prepared: 02/21/23**	**Analyzed: 02/27/23**					
Alachlor	6.09	0.10	ug/l	7.50		81	70-130	12	30	
Atrazine	4.95	0.10	ug/l	5.00		99	70-130	13	30	
Benzo (a) pyrene	4.71	0.10	ug/l	5.00		94	60-130	11	30	
Bis(2-ethylhexyl)adipate	5.00	5.0	ug/l	5.00		100	70-130	17	30	
Bis(2-ethylhexyl)phthalate	5.33	3.0	ug/l	5.00		107	70-130	14	30	
Bromacil	4.06	0.50	ug/l	5.00		81	70-130	6	30	
Butachlor	4.78	0.10	ug/l	5.00		96	70-130	11	30	
Captan	4.57	1.0	ug/l	5.00		91	70-130	15	30	
Chlorpropham	4.76	0.10	ug/l	5.00		95	70-130	11	30	
Diazinon	4.33	0.10	ug/l	5.00		87	50-120	5	30	
Dimethoate	3.33	0.20	ug/l	5.00		67	50-120	15	30	
Diphenamid	5.35	0.10	ug/l	5.00		107	70-130	10	30	
Disulfoton	3.93	0.10	ug/l	5.00		79	50-120	10	30	
EPTC	4.89	0.10	ug/l	5.00		98	70-130	12	30	
Hexachlorocyclopentadiene	1.92	1.0	ug/l	2.50		77	33-106	10	30	
Metolachlor	4.79	0.10	ug/l	5.00		96	60-130	10	30	
Metribuzin	4.26	0.10	ug/l	5.00		85	50-120	8	30	
Molinate	4.73	0.10	ug/l	5.00		95	70-130	13	30	

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Project Number: 23B0260

Project Manager: Theresa Trevizo

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Quality Control Results

(Continued)

Semivolatile Organic Compounds by GC/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1650 - EPA 525.2 (Continued)										
LCS Dup (W3B1650-BSD1)				**Prepared: 02/21/23**	**Analyzed: 02/27/23**					
Naphthalene	4.17	0.50	ug/l	5.00		83	70-130	8	30	
Prometryn	3.64	0.10	ug/l	5.00		73	30-120	11	30	
Propachlor	2.48	0.20	ug/l	2.50		99	70-130	10	30	
Simazine	4.46	0.10	ug/l	5.00		89	60-130	8	30	
Terbacil	4.50	2.0	ug/l	5.00		90	70-130	11	30	
Thiobencarb	4.27	0.10	ug/l	5.00		85	70-130	6	30	
Trithion	4.74	0.10	ug/l	5.00		95	70-130	11	30	
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene	*4.79*		*ug/l*	*5.00*		*96*	*70-130*			
Perylene-d12	*4.28*		*ug/l*	*5.00*		*86*	*50-120*			
Triphenyl phosphate	*6.53*		*ug/l*	*5.00*		*131*	*70-130*			*S-11*

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Quality Control Results

(Continued)

Semivolatile Organics - Low Level by GC/MS SIM Mode

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1649 - EPA 625.1										
Blank (W3B1649-BLK1)				**Prepared: 02/21/23 Analyzed: 03/30/23**						
1-Methylnaphthalene	ND	0.10	ug/l							
2-Methylnaphthalene	ND	0.10	ug/l							
Acenaphthene	ND	0.10	ug/l							
Acenaphthylene	ND	0.10	ug/l							
Anthracene	ND	0.10	ug/l							
Benzo (a) anthracene	ND	0.10	ug/l							
Benzo (a) pyrene	ND	0.10	ug/l							
Benzo (b) fluoranthene	ND	0.10	ug/l							
Benzo (g,h,i) perylene	ND	0.10	ug/l							
Benzo (k) fluoranthene	ND	0.10	ug/l							
Chrysene	ND	0.10	ug/l							
Dibenzo (a,h) anthracene	ND	0.10	ug/l							
Fluoranthene	ND	0.10	ug/l							
Fluorene	ND	0.10	ug/l							
Indeno (1,2,3-cd) pyrene	ND	0.10	ug/l							
Naphthalene	ND	0.10	ug/l							
Phenanthrene	ND	0.10	ug/l							
Pyrene	ND	0.10	ug/l							
Surrogate(s)										
2-Fluorobiphenyl	*12.9*		*ug/l*	*20.0*		*64*	*22-120*			
Nitrobenzene-d5	*10.7*		*ug/l*	*20.0*		*54*	*47-120*			
Terphenyl-d14	*15.2*		*ug/l*	*20.0*		*76*	*44-129*			
LCS (W3B1649-BS1)				**Prepared: 02/21/23 Analyzed: 03/29/23**						
Acenaphthene	0.755	0.10	ug/l	1.00		75	60-132			
Acenaphthylene	0.693	0.10	ug/l	1.00		69	54-126			
Anthracene	0.688	0.10	ug/l	1.00		69	43-120			
Benzo (a) anthracene	0.830	0.10	ug/l	1.00		83	42-133			
Benzo (a) pyrene	0.879	0.10	ug/l	1.00		88	32-148			
Benzo (b) fluoranthene	0.772	0.10	ug/l	1.00		77	42-140			AN-IP
Benzo (g,h,i) perylene	0.984	0.10	ug/l	1.00		98	0.1-195			
Benzo (k) fluoranthene	0.876	0.10	ug/l	1.00		88	25-146			AN-IP
Chrysene	0.817	0.10	ug/l	1.00		82	44-140			
Dibenzo (a,h) anthracene	0.966	0.10	ug/l	1.00		97	0.1-200			
Fluoranthene	0.765	0.10	ug/l	1.00		77	43-121			
Fluorene	0.715	0.10	ug/l	1.00		72	70-120			
Indeno (1,2,3-cd) pyrene	0.909	0.10	ug/l	1.00		91	0.1-151			
Naphthalene	0.716	0.10	ug/l	1.00		72	36-120			
Phenanthrene	0.784	0.10	ug/l	1.00		78	65-120			
Pyrene	0.773	0.10	ug/l	1.00		77	70-120			

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Quality Control Results

(Continued)

Semivolatile Organics - Low Level by GC/MS SIM Mode (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1649 - EPA 625.1 (Continued)										
LCS (W3B1649-BS1)				**Prepared: 02/21/23**	**Analyzed: 03/29/23**					
Surrogate(s)										
2-Fluorobiphenyl	*3.70*		*ug/l*	*5.00*		*74*	*22-120*			
Nitrobenzene-d5	*3.08*		*ug/l*	*5.00*		*62*	*47-120*			
Terphenyl-d14	*4.32*		*ug/l*	*5.00*		*86*	*44-129*			
LCS Dup (W3B1649-BSD1)				**Prepared: 02/21/23**	**Analyzed: 03/30/23**					
Acenaphthene	0.867	0.10	ug/l	1.00		87	60-132	14	30	
Acenaphthylene	0.808	0.10	ug/l	1.00		81	54-126	15	30	
Anthracene	0.803	0.10	ug/l	1.00		80	43-120	15	30	
Benzo (a) anthracene	0.991	0.10	ug/l	1.00		99	42-133	18	30	
Benzo (a) pyrene	1.13	0.10	ug/l	1.00		113	32-148	25	30	
Benzo (b) fluoranthene	1.05	0.10	ug/l	1.00		105	42-140	30	30	AN-IP
Benzo (g,h,i) perylene	1.29	0.10	ug/l	1.00		129	0.1-195	27	30	
Benzo (k) fluoranthene	1.14	0.10	ug/l	1.00		114	25-146	26	30	AN-IP
Chrysene	1.05	0.10	ug/l	1.00		105	44-140	25	30	
Dibenzo (a,h) anthracene	1.29	0.10	ug/l	1.00		129	0.1-200	29	30	
Fluoranthene	0.882	0.10	ug/l	1.00		88	43-121	14	30	
Fluorene	0.833	0.10	ug/l	1.00		83	70-120	15	30	
Indeno (1,2,3-cd) pyrene	1.25	0.10	ug/l	1.00		125	0.1-151	31	30	Q-12
Naphthalene	0.818	0.10	ug/l	1.00		82	36-120	13	30	
Phenanthrene	0.910	0.10	ug/l	1.00		91	65-120	15	30	
Pyrene	0.886	0.10	ug/l	1.00		89	70-120	14	30	
Surrogate(s)										
2-Fluorobiphenyl	*4.03*		*ug/l*	*5.00*		*81*	*22-120*			
Nitrobenzene-d5	*3.58*		*ug/l*	*5.00*		*72*	*47-120*			
Terphenyl-d14	*4.98*		*ug/l*	*5.00*		*100*	*44-129*			

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Quality Control Results

(Continued)

Volatile Organic Compounds by P&T and GC/MS

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1336 - EPA 524.2										
Blank (W3B1336-BLK1)				**Prepared & Analyzed: 02/15/23**						
1,1,1,2-Tetrachloroethane	ND	0.50	ug/l				70-130			
1,1,1-Trichloroethane	ND	0.50	ug/l				70-130			
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l				70-130			
1,1,2-Trichloroethane	ND	0.50	ug/l				70-130			
1,1-Dichloroethane	ND	0.50	ug/l				70-130			
1,1-Dichloroethene	ND	0.50	ug/l				70-130			
1,1-Dichloropropene	ND	0.50	ug/l				70-130			
1,2,3-Trichlorobenzene	ND	0.50	ug/l				70-130			
1,2,4-Trichlorobenzene	ND	0.50	ug/l				70-130			
1,2,4-Trimethylbenzene	ND	0.50	ug/l				70-130			
1,2-Dichloroethane	ND	0.50	ug/l				70-130			
1,2-Dichloropropane	ND	0.50	ug/l				70-130			
1,3,5-Trimethylbenzene	ND	0.50	ug/l				70-130			
1,3-Dichloropropane	ND	0.50	ug/l				70-130			
1,3-Dichloropropene, Total	ND	0.50	ug/l				70-130			
2,2-Dichloropropane	ND	0.50	ug/l				70-130			
2-Butanone	ND	5.0	ug/l				70-130			
2-Chlorotoluene	ND	0.50	ug/l				70-130			
2-Hexanone	ND	5.0	ug/l				70-130			
4-Chlorotoluene	ND	0.50	ug/l				70-130			
4-Methyl-2-pentanone	ND	5.0	ug/l				70-130			
Benzene	ND	0.50	ug/l				70-130			
Bromobenzene	ND	0.50	ug/l				70-130			
Bromochloromethane	ND	0.50	ug/l				70-130			
Bromodichloromethane	ND	0.50	ug/l				70-130			
Bromoform	ND	0.50	ug/l				70-130			
Bromomethane	ND	0.50	ug/l				70-130			
Carbon tetrachloride	ND	0.50	ug/l				70-130			
Chlorobenzene	ND	0.50	ug/l				70-130			
Chloroethane	ND	0.50	ug/l				70-130			
Chloroform	ND	0.50	ug/l				70-130			
Chloromethane	ND	0.50	ug/l				70-130			
cis-1,2-Dichloroethene	ND	0.50	ug/l				70-130			
cis-1,3-Dichloropropene	ND	0.50	ug/l				70-130			
Dibromochloromethane	ND	0.50	ug/l				70-130			
Dibromomethane	ND	0.50	ug/l				70-130			
Dichlorodifluoromethane (Freon 12)	ND	0.50	ug/l				70-130			
Di-isopropyl ether	ND	2.0	ug/l				70-130			
Ethyl tert-butyl ether	ND	2.0	ug/l				70-130			

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Quality Control Results

(Continued)

Volatile Organic Compounds by P&T and GC/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1336 - EPA 524.2 (Continued)										
Blank (W3B1336-BLK1)				**Prepared & Analyzed: 02/15/23**						
Ethylbenzene	ND	0.50	ug/l				70-130			
Freon 113	ND	5.0	ug/l				70-130			
Hexachlorobutadiene	ND	0.50	ug/l				70-130			
Isopropylbenzene	ND	0.50	ug/l				70-130			
m,p-Xylene	ND	0.50	ug/l				70-130			
m-Dichlorobenzene	ND	0.50	ug/l				70-130			
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/l				70-130			
Methylene chloride	ND	0.50	ug/l				70-130			
Naphthalene	ND	0.50	ug/l				70-130			
n-Butylbenzene	ND	0.50	ug/l				70-130			
n-Propylbenzene	ND	0.50	ug/l				70-130			
o-Dichlorobenzene	ND	0.50	ug/l				70-130			
o-Xylene	ND	0.50	ug/l				70-130			
p-Dichlorobenzene	ND	0.50	ug/l				70-130			
p-Isopropyltoluene	ND	0.50	ug/l				70-130			
sec-Butylbenzene	ND	0.50	ug/l				70-130			
Styrene	ND	0.50	ug/l				70-130			
Tert-amyl methyl ether	ND	2.0	ug/l				70-130			
tert-Butylbenzene	ND	0.50	ug/l				70-130			
Tetrachloroethene	ND	0.50	ug/l				70-130			
THMs, Total	ND	0.50	ug/l				70-130			
Toluene	ND	0.50	ug/l				70-130			
trans-1,2-Dichloroethene	ND	0.50	ug/l				70-130			
trans-1,3-Dichloropropene	ND	0.50	ug/l				70-130			
Trichloroethene	ND	0.50	ug/l				70-130			
Trichlorofluoromethane	ND	0.50	ug/l				70-130			
Vinyl chloride	ND	0.50	ug/l				70-130			
Xylenes, Total	ND	0.50	ug/l				70-130			
Surrogate(s)										
1,2-Dichlorobenzene-d4	*10.5*		*ug/l*	*10.0*		*105*	*70-130*			
4-Bromofluorobenzene	*10.9*		*ug/l*	*10.0*		*109*	*70-130*			
LCS (W3B1336-BS1)				**Prepared & Analyzed: 02/15/23**						
1,1,1,2-Tetrachloroethane	4.65	0.50	ug/l	5.00		93	80-120			
1,1,1-Trichloroethane	4.88	0.50	ug/l	5.00		98	80-120			
1,1,2,2-Tetrachloroethane	4.82	0.50	ug/l	5.00		96	80-120			
1,1,2-Trichloroethane	4.90	0.50	ug/l	5.00		98	80-120			
1,1-Dichloroethane	4.92	0.50	ug/l	5.00		98	80-120			
1,1-Dichloroethene	4.75	0.50	ug/l	5.00		95	80-120			
1,1-Dichloropropene	4.96	0.50	ug/l	5.00		99	80-120			

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Quality Control Results

(Continued)

Volatile Organic Compounds by P&T and GC/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1336 - EPA 524.2 (Continued)										
LCS (W3B1336-BS1)				**Prepared & Analyzed: 02/15/23**						
1,2,3-Trichlorobenzene	4.90	0.50	ug/l	5.00		98	80-120			
1,2,4-Trichlorobenzene	4.89	0.50	ug/l	5.00		98	80-120			
1,2,4-Trimethylbenzene	4.87	0.50	ug/l	5.00		97	80-120			
1,2-Dichloroethane	4.96	0.50	ug/l	5.00		99	80-120			
1,2-Dichloropropane	4.73	0.50	ug/l	5.00		95	80-120			
1,3,5-Trimethylbenzene	4.99	0.50	ug/l	5.00		100	80-120			
1,3-Dichloropropane	4.88	0.50	ug/l	5.00		98	80-120			
2,2-Dichloropropane	4.97	0.50	ug/l	5.00		99	80-120			
2-Butanone	4.92	5.0	ug/l	5.00		98	70-130			
2-Chlorotoluene	4.91	0.50	ug/l	5.00		98	80-120			
2-Hexanone	4.71	5.0	ug/l	5.00		94	70-130			
4-Chlorotoluene	4.89	0.50	ug/l	5.00		98	80-120			
4-Methyl-2-pentanone	4.90	5.0	ug/l	5.00		98	70-130			
Benzene	5.05	0.50	ug/l	5.00		101	80-120			
Bromobenzene	4.81	0.50	ug/l	5.00		96	80-120			
Bromochloromethane	4.90	0.50	ug/l	5.00		98	80-120			
Bromodichloromethane	4.74	0.50	ug/l	5.00		95	70-130			
Bromoform	4.79	0.50	ug/l	5.00		96	70-130			
Bromomethane	4.68	0.50	ug/l	5.00		94	80-120			
Carbon tetrachloride	4.86	0.50	ug/l	5.00		97	80-120			
Chlorobenzene	4.84	0.50	ug/l	5.00		97	80-120			
Chloroethane	4.72	0.50	ug/l	5.00		94	80-120			
Chloroform	4.98	0.50	ug/l	5.00		100	70-130			
Chloromethane	4.60	0.50	ug/l	5.00		92	80-120			
cis-1,2-Dichloroethene	4.94	0.50	ug/l	5.00		99	80-120			
cis-1,3-Dichloropropene	4.76	0.50	ug/l	5.00		95	80-120			
Dibromochloromethane	4.72	0.50	ug/l	5.00		94	70-130			
Dibromomethane	4.77	0.50	ug/l	5.00		95	80-120			
Dichlorodifluoromethane (Freon 12)	4.76	0.50	ug/l	5.00		95	80-120			
Di-isopropyl ether	21.2	2.0	ug/l	20.0		106	70-130			
Ethyl tert-butyl ether	21.0	2.0	ug/l	20.0		105	70-130			
Ethylbenzene	4.89	0.50	ug/l	5.00		98	80-120			
Freon 113	4.87	5.0	ug/l	5.00		97	70-130			
Hexachlorobutadiene	4.84	0.50	ug/l	5.00		97	80-120			
Isopropylbenzene	4.84	0.50	ug/l	5.00		97	80-120			
m,p-Xylene	4.91	0.50	ug/l	5.00		98	70-130			
m-Dichlorobenzene	4.85	0.50	ug/l	5.00		97	80-120			
Methyl tert-butyl ether (MTBE)	20.1	2.0	ug/l	20.0		100	80-120			
Methylene chloride	4.75	0.50	ug/l	5.00		95	80-120			

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Quality Control Results

(Continued)

Volatile Organic Compounds by P&T and GC/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1336 - EPA 524.2 (Continued)										
LCS (W3B1336-BS1)				**Prepared & Analyzed: 02/15/23**						
Naphthalene	4.98	0.50	ug/l	5.00		100	80-120			
n-Butylbenzene	5.06	0.50	ug/l	5.00		101	80-120			
n-Propylbenzene	4.94	0.50	ug/l	5.00		99	80-120			
o-Dichlorobenzene	4.88	0.50	ug/l	5.00		98	80-120			
o-Xylene	4.87	0.50	ug/l	5.00		97	70-130			
p-Dichlorobenzene	4.96	0.50	ug/l	5.00		99	80-120			
p-Isopropyltoluene	4.90	0.50	ug/l	5.00		98	80-120			
sec-Butylbenzene	4.97	0.50	ug/l	5.00		99	80-120			
Styrene	4.86	0.50	ug/l	5.00		97	80-120			
Tert-amyl methyl ether	21.3	2.0	ug/l	20.0		107	70-130			
tert-Butylbenzene	4.92	0.50	ug/l	5.00		98	80-120			
Tetrachloroethene	4.75	0.50	ug/l	5.00		95	80-120			
Toluene	4.96	0.50	ug/l	5.00		99	80-120			
trans-1,2-Dichloroethene	5.04	0.50	ug/l	5.00		101	80-120			
trans-1,3-Dichloropropene	4.89	0.50	ug/l	5.00		98	80-120			
Trichloroethene	4.64	0.50	ug/l	5.00		93	80-120			
Trichlorofluoromethane	4.88	0.50	ug/l	5.00		98	80-120			
Vinyl chloride	4.68	0.50	ug/l	5.00		94	80-120			
Surrogate(s)										
1,2-Dichlorobenzene-d4	*10.3*		*ug/l*	*10.0*		*103*	*70-130*			
4-Bromofluorobenzene	*10.0*		*ug/l*	*10.0*		*100*	*70-130*			
LCS Dup (W3B1336-BSD1)				**Prepared & Analyzed: 02/15/23**						
1,1,1,2-Tetrachloroethane	4.50	0.50	ug/l	5.00		90	80-120	3	20	
1,1,1-Trichloroethane	4.69	0.50	ug/l	5.00		94	80-120	4	20	
1,1,2,2-Tetrachloroethane	4.79	0.50	ug/l	5.00		96	80-120	0.6	20	
1,1,2-Trichloroethane	4.85	0.50	ug/l	5.00		97	80-120	0.9	20	
1,1-Dichloroethane	4.84	0.50	ug/l	5.00		97	80-120	2	20	
1,1-Dichloroethene	4.69	0.50	ug/l	5.00		94	80-120	1	20	
1,1-Dichloropropene	4.77	0.50	ug/l	5.00		95	80-120	4	20	
1,2,3-Trichlorobenzene	4.81	0.50	ug/l	5.00		96	80-120	2	20	
1,2,4-Trichlorobenzene	4.84	0.50	ug/l	5.00		97	80-120	1	20	
1,2,4-Trimethylbenzene	4.77	0.50	ug/l	5.00		95	80-120	2	20	
1,2-Dichloroethane	4.89	0.50	ug/l	5.00		98	80-120	1	20	
1,2-Dichloropropane	4.63	0.50	ug/l	5.00		93	80-120	2	20	
1,3,5-Trimethylbenzene	4.88	0.50	ug/l	5.00		98	80-120	2	20	
1,3-Dichloropropane	4.87	0.50	ug/l	5.00		97	80-120	0.2	20	
2,2-Dichloropropane	4.79	0.50	ug/l	5.00		96	80-120	4	20	
2-Butanone	5.17	5.0	ug/l	5.00		103	70-130	5	30	
2-Chlorotoluene	4.82	0.50	ug/l	5.00		96	80-120	2	20	

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1824 1st Street
San Fernando, CA 91340

Project Number: 23B0260

Project Manager: Theresa Trevizo

Reported:
04/27/2023 19:37

Quality Control Results

(Continued)

Volatile Organic Compounds by P&T and GC/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1336 - EPA 524.2 (Continued)										
LCS Dup (W3B1336-BSD1)				**Prepared & Analyzed: 02/15/23**						
2-Hexanone	4.73	5.0	ug/l	5.00		95	70-130	0.5	30	
4-Chlorotoluene	4.84	0.50	ug/l	5.00		97	80-120	1	20	
4-Methyl-2-pentanone	4.79	5.0	ug/l	5.00		96	70-130	2	30	
Benzene	4.86	0.50	ug/l	5.00		97	80-120	4	20	
Bromobenzene	4.70	0.50	ug/l	5.00		94	80-120	2	20	
Bromochloromethane	4.90	0.50	ug/l	5.00		98	80-120	0.01	20	
Bromodichloromethane	4.61	0.50	ug/l	5.00		92	70-130	3	30	
Bromoform	4.76	0.50	ug/l	5.00		95	70-130	0.7	30	
Bromomethane	4.66	0.50	ug/l	5.00		93	80-120	0.4	20	
Carbon tetrachloride	4.67	0.50	ug/l	5.00		93	80-120	4	20	
Chlorobenzene	4.73	0.50	ug/l	5.00		95	80-120	2	20	
Chloroethane	4.79	0.50	ug/l	5.00		96	80-120	2	20	
Chloroform	4.82	0.50	ug/l	5.00		96	70-130	3	30	
Chloromethane	4.61	0.50	ug/l	5.00		92	80-120	0.2	20	
cis-1,2-Dichloroethene	4.82	0.50	ug/l	5.00		96	80-120	2	20	
cis-1,3-Dichloropropene	4.68	0.50	ug/l	5.00		94	80-120	2	20	
Dibromochloromethane	4.67	0.50	ug/l	5.00		93	70-130	0.9	30	
Dibromomethane	4.76	0.50	ug/l	5.00		95	80-120	0.3	20	
Dichlorodifluoromethane (Freon 12)	4.60	0.50	ug/l	5.00		92	80-120	3	20	
Di-isopropyl ether	21.0	2.0	ug/l	20.0		105	70-130	0.9	30	
Ethyl tert-butyl ether	20.6	2.0	ug/l	20.0		103	70-130	2	30	
Ethylbenzene	4.77	0.50	ug/l	5.00		95	80-120	3	20	
Freon 113	4.65	5.0	ug/l	5.00		93	70-130	5	30	
Hexachlorobutadiene	4.66	0.50	ug/l	5.00		93	80-120	4	20	
Isopropylbenzene	4.71	0.50	ug/l	5.00		94	80-120	3	20	
m,p-Xylene	4.77	0.50	ug/l	5.00		95	70-130	3	30	
m-Dichlorobenzene	4.78	0.50	ug/l	5.00		96	80-120	1	20	
Methyl tert-butyl ether (MTBE)	18.9	2.0	ug/l	20.0		94	80-120	6	20	
Methylene chloride	4.79	0.50	ug/l	5.00		96	80-120	0.9	20	
Naphthalene	4.93	0.50	ug/l	5.00		99	80-120	1	20	
n-Butylbenzene	4.87	0.50	ug/l	5.00		97	80-120	4	20	
n-Propylbenzene	4.79	0.50	ug/l	5.00		96	80-120	3	20	
o-Dichlorobenzene	4.81	0.50	ug/l	5.00		96	80-120	2	20	
o-Xylene	4.74	0.50	ug/l	5.00		95	70-130	3	30	
p-Dichlorobenzene	4.84	0.50	ug/l	5.00		97	80-120	3	20	
p-Isopropyltoluene	4.80	0.50	ug/l	5.00		96	80-120	2	20	
sec-Butylbenzene	4.82	0.50	ug/l	5.00		96	80-120	3	20	
Styrene	4.79	0.50	ug/l	5.00		96	80-120	1	20	
Tert-amyl methyl ether	20.9	2.0	ug/l	20.0		104	70-130	2	30	

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Project Number: 23B0260

Project Manager: Theresa Trevizo

Reported:
04/27/2023 19:37

Quality Control Results

(Continued)

Volatile Organic Compounds by P&T and GC/MS (Continued)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1336 - EPA 524.2 (Continued)										
LCS Dup (W3B1336-BSD1)				**Prepared & Analyzed: 02/15/23**						
tert-Butylbenzene	4.74	0.50	ug/l	5.00		95	80-120	4	20	
Tetrachloroethene	4.59	0.50	ug/l	5.00		92	80-120	4	20	
Toluene	4.81	0.50	ug/l	5.00		96	80-120	3	20	
trans-1,2-Dichloroethene	4.84	0.50	ug/l	5.00		97	80-120	4	20	
trans-1,3-Dichloropropene	4.78	0.50	ug/l	5.00		96	80-120	2	20	
Trichloroethene	4.52	0.50	ug/l	5.00		90	80-120	3	20	
Trichlorofluoromethane	4.72	0.50	ug/l	5.00		94	80-120	3	20	
Vinyl chloride	4.63	0.50	ug/l	5.00		93	80-120	1	20	
Surrogate(s)										
1,2-Dichlorobenzene-d4	*10.2*		*ug/l*	*10.0*		*102*	*70-130*			
4-Bromofluorobenzene	*9.97*		*ug/l*	*10.0*		*100*	*70-130*			

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Reported: 04/27/2023 19:37

Quality Control Results

(Continued)

Volatile Organics by P&T and GC/MS

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W3B1698 - EPA 524.3										
Blank (W3B1698-BLK1)				**Prepared & Analyzed: 02/21/23**						
1,2-Dibromo-3-chloropropane	ND	0.010	ug/l							
1,2-Dibromoethane (EDB)	ND	0.020	ug/l							
Surrogate(s)										
1,2-Dichlorobenzene-d4	*0.391*		*ug/l*	*0.400*		*98*	*70-130*			
4-Bromofluorobenzene	*0.401*		*ug/l*	*0.400*		*100*	*70-130*			
LCS (W3B1698-BS1)				**Prepared & Analyzed: 02/21/23**						
1,2-Dibromo-3-chloropropane	0.0561	0.010	ug/l	0.0500		112	70-130			
1,2-Dibromoethane (EDB)	0.0504	0.020	ug/l	0.0500		101	70-130			
Surrogate(s)										
1,2-Dichlorobenzene-d4	*0.401*		*ug/l*	*0.400*		*100*	*70-130*			
4-Bromofluorobenzene	*0.404*		*ug/l*	*0.400*		*101*	*70-130*			
LCS Dup (W3B1698-BSD1)				**Prepared & Analyzed: 02/21/23**						
1,2-Dibromo-3-chloropropane	0.0580	0.010	ug/l	0.0500		116	70-130	3	30	
1,2-Dibromoethane (EDB)	0.0547	0.020	ug/l	0.0500		109	70-130	8	30	
Surrogate(s)										
1,2-Dichlorobenzene-d4	*0.396*		*ug/l*	*0.400*		*99*	*70-130*			
4-Bromofluorobenzene	*0.404*		*ug/l*	*0.400*		*101*	*70-130*			
Matrix Spike (W3B1698-MS1)	**Source: 3A19009-01**			**Prepared: 02/21/23**	**Analyzed: 02/22/23**					
1,2-Dibromo-3-chloropropane	0.0468	0.010	ug/l	0.0500	ND	94	65-135			
1,2-Dibromoethane (EDB)	0.0536	0.020	ug/l	0.0500	ND	107	65-135			
Surrogate(s)										
1,2-Dichlorobenzene-d4	*0.387*		*ug/l*	*0.400*		*97*	*70-130*			
4-Bromofluorobenzene	*0.408*		*ug/l*	*0.400*		*102*	*70-130*			
Matrix Spike Dup (W3B1698-MSD1)	**Source: 3A19009-01**			**Prepared: 02/21/23**	**Analyzed: 02/22/23**					
1,2-Dibromo-3-chloropropane	0.0497	0.010	ug/l	0.0500	ND	99	65-135	6	30	
1,2-Dibromoethane (EDB)	0.0559	0.020	ug/l	0.0500	ND	112	65-135	4	30	
Surrogate(s)										
1,2-Dichlorobenzene-d4	*0.389*		*ug/l*	*0.400*		*97*	*70-130*			
4-Bromofluorobenzene	*0.409*		*ug/l*	*0.400*		*102*	*70-130*			

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Project Number: 23B0260

Project Manager: Theresa Trevizo

Reported:
04/27/2023 19:37

Notes and Definitions

Item	Definition
AN-IP	Sample results for structural isomers may have contribution from their isomeric pair.
M-04	Due to the nature of matrix interferences, sample extract was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
MS-01	The spike recovery for this QC sample is outside of established control limits possibly due to sample matrix interference.
O-04	This analysis was performed outside the EPA recommended holding time.
O-05	The extraction for this analyte was performed outside of the EPA recommended holding time.
P-3	The sample was preserved with ascorbic acid, but the pH was >2 possibly due to no, or insufficient preservation with HCl. The sample was not analyzed within 24 hours, as required by method for sample with pH>2.
Q-02	Low recovery of this analyte in the QC sample. The analysis of the low level standard produced acceptable recovery indicating that the sample result might be accurately reported as Not Detected.
Q-12	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on the percent recoveries and/or other acceptable QC data.
QC-2	This QC sample was reanalyzed to complement samples that require re-analysis on different date. See analysis date.
R-01	The MDL and/or MRL for this analyte has been raised to account for matrix interference.
R-02	The RPD was outside of QC acceptance limits due to possible matrix interference.
R-03	The RPD is not applicable for result below the reporting limit (either ND or J value).
S-11	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
S-GC	Surrogate recovery outside of control limits due to a possible matrix effect . The data was accepted based on valid recovery of the remaining surrogate.
U-01	The sample was received without the proper preservation.
%REC	Percent Recovery
Dil	Dilution
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ)
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
RPD	Relative Percent Difference
Source	Sample that was matrix spiked or duplicated.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

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INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
01/01/2023	EDM	MCC-MOM	SAM-WTO	Took daily pH and EC reads and added results to log.
01/01/2023	KTV	MCC-MOM	OPR-WTO	Headworks Alarm - EQ insufficient pump up. Remote check showed no issues and rain has stopped, so disabled the alarm for 1 hour.
01/01/2023	EDM	MCC-MOM	SAM-WTO	Took daily EFF samples and prepared sample paperwork for lab pick-up. Took daily pH and EC reads and added results to log
01/02/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data. Plant walk, inspected chemical storage, odor control, UV system, upper blower rooms, MBT, headworks, and electrical rooms. With EJT, walked electrical housekeeping, emptied and cleaned composite samplers, emptied trash from SC-2101, Me-2210, and SC-2310.
01/02/2023	EJT	MCC-MOM	OPR-WTO	Cleaning Electrical Rooms PLCs, changed trash can's in headworks, hosed down inside Fine Screen Chamber.
01/02/2023	DFH	MCC-MOM	GMT-DIG	Dig alerts, A222840679, B223480575, A222930195, and A223390360.
01/02/2023	DFH	MCC-MOM	OPR-WTO	Inventory Management.
01/02/2023	EJT	MCC-MOM	GEN-TRN	Training with Daniel, cleaning the composite container, and collecting the daily EFF sample
01/02/2023	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested permeate sample for pH and EC.
01/02/2023	DFH	MCC-MOM	GMT-AUT	Assist EJT with diagnosing Tacoma battery. Voltage is 10v, hooked up battery charger and will leave charging for now.
01/02/2023	DFH	MCC-MOM	GMT-AUT	Assist EJT with truck battery. Voltage now 13.7v, started truck and measured voltage at 14.4v. I believe battery died due to dome light being left on.
01/03/2023	KTV	MCC-MOM	PRG-PLC	Fixed math errors that were causing the timed bypass logic to get stuck when a timed bypass expires on its own and is followed by a user adding another bypass to the list. Discovered another problem in PLC3 and PLC6 where the average tags are DINT instead of REAL. Updated the logic for all lists in PLC2, 3 and 6, and changed the DINT addresses to REAL in PLC3 and 6. Also removed email reminder for timed bypass. Tested a couple of different configurations and all worked as expected.
01/03/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data.
01/03/2023	DFH	MCC-MOM	OPR-WTO	Collected emergency generator fuel levels all at 80%.
01/03/2023	DFH	MCC-MOM	GMT-AUT	Remove flat tire and replace with spare on F250.
01/03/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Reduced chlorination multiple from 0.08 to 0.05. Restarted the MBT system.
01/03/2023	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested permeate sample for pH and EC.
01/03/2023	GXK	MCC-MOM	OPR-WTO	Took P8420 out of service and closed the BV8421 isolation. Opened the cross-train valve and tested P8410. P8410 will now be the pump that dose Micro-C to Bio reactor #2. Continue researching for a replacement for P1250B and for repair parts for P-1250A. Continue to put together the parts for the dual-P1250 control panel.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
01/04/2023	KTV	MCC-MOM	CMT-ELT	Investigated why P-1250 isn't showing speed feedback on SCADA. Found no issues with wiring or programming in the PLC. Checked VFD parameters and found it was set to 0-20 mA instead of 4-20 mA. Changed this parameter and it started working as expected; however, I'm unsure why this matters since both the card and the VFD are capable of 4-20 mA and the raw value of the input while P-1250 was running prior to changing the range was ~0.6 mA.
01/04/2023	KTV	MCC-MOM	OPR-WTO	Plant check okay. Reviewed basic system layout and theory of operation with EJT.
01/04/2023	EJT	MCC-MOM	OPR-WTO	Reviewing log book, and training with Kyle on-site overview, and process patterns.
01/04/2023	DFH	MCC-MOM	GEN-ADM	Signed up for Recycled water users site supervisor training program.
01/04/2023	KTV	MCC-MOM	OPR-WTO	Supervised DFH performing IW2 weekly maintenance. Decreased EQ smoothing hours from 6 to 4 to increase response since rain is supposed to start today.
01/04/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data.
01/04/2023	KTV	MCC-MOM	PRG-PLC	Continued PLC3 alarm list programming and integration on SCADA.
01/04/2023	DFH	MCC-MOM	OPR-WTO	Plant review with KTV and EJT.
01/04/2023	KTV	MCC-MOM	PRG-PLC	Finished PLC3 alarm lists and updated PLC2 EQT Insufficient Pump Up alarm so that it will refer to a lower level change when the PDPS was the most recent pump cycle. Continued with PLC6 alarm lists. Drafted logic for detecting lower zone reuse leaks but realized it won't work as is, so disabled the logic for now.
01/04/2023	EJT	MCC-MOM	OPR-WTO	Reviewed process equipment
01/04/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
01/04/2023	KTV	MCC-MOM	PRG-PLC	Continued PLC6 alarm list. Showed GXK how to add alarms and how all the new timed bypass features work. Discussed other necessary features to add to SCADA and communications logic.
01/04/2023	EJT	MCC-MOM	SAM-WTO	With Daniel collection of weekly process, weekly EFF (A), Daily EFF samples. Also tested pH in Bio train2 aeration tank 1 and 3,
01/04/2023	DFH	MCC-MOM	SAM-WTO	Trained EJT and JRW. Collect daily EFF, Weekly A, Process samples and tested permeate sample for pH, EC, NH3, NO2, NO3, and Alk.
01/04/2023	JRW	MCC-MOM	OPR-TRN	With EJT & DFH, obtained MCC weekly eff A, MCC process samples, and MCC daily samples. DFH reviewed pH & EC calibration, then reviewed Hach testing. Also grabbed AB1, AB3, and MBT sample. Tested AB 1 & AB3 using pH probe.
01/04/2023	GXK	MCC-MOM	OPR-WTO	Contacted WesTech service inquired about replacement fine screen stabilizer wheel bracket. Talked to KTV about how to create new alarms and how the bypass timer work.
01/04/2023	KTV	MCC-MOM	PRG-SDA	Updated SCADA tags that were broken due to changes I made in the PLC while programming the timed bypass logic. Fixed security issues with the new alarm templates - guest accounts are no longer able to bypass alarms.
01/04/2023	JRW	MCC-MOM	OPR-TRN	With EJT & DFH, DFH reviewed how to use ML analysis machine with AB3 first then MBT. DFH noticed leak at sink, began troubleshooting steps.
01/04/2023	EJT	MCC-MOM	OPR-WTO	Conducting MLSS concentration of aeration 3, and MBT.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
01/04/2023	DFH	MCC-MOM	SAM-WTO	MLSS analysis of BIO2 and MBT training with EJT and JRW.
01/04/2023	KTV	MCC-MOM	PRG-SDA	Tested user scheduling for alarm notifications. Unable to set the schedule to match the current Google Calendar schedule from the client.
01/04/2023	GXK	MCC-MOM	OPR-WTO	Assisted DFH with the repairs of the broken sink drain in the lab. Got parts from Anawalt. Contacted Trojan UV asking about the price guarantee.
01/04/2023	DFH	MCC-MOM	CMT-PLB	JAA noticed leak coming from under the sink in lab. Further inspection found the drain tail pipe had corroded. Removed and replaced damaged drain pipe. Tested drain for leaks, okay.
01/05/2023	KTV	MCC-MOM	OPR-WTO	Repeated zone 2 alarms due to rain. Monitored system remotely and disabled alarms on timer. Level continues to increase but not yet at the high-level alarm.
01/05/2023	KTV	MCC-MOM	OPR-WTO	Repeated zone 2 alarms once the timed bypass was over, and reached the EQ high-level alarm setpoint. Decided to come in early since P-1250 is nearing 100% speed. At 100% speed, I'll need to change flow control to hold steady at the maximum. Arrived onsite and verified P-1210 is available for pumping to Bio 1 if necessary. Checked EQT and confirmed that the bottom of the influent pipe from headworks sits at 12 feet, so we still have room.
01/05/2023	KTV	MCC-MOM	OPR-WTO	Set EQ flow manually to the maximum possible flow rate that can keep up with the MBR. Monitored system performance. GXK noticed that at that flow rate we are running the MBR ~2.5Q. Rain has dropped off, so set the plant flow rate manually to maintain 4Q instantaneous with MLTP2 at 100% speed.
01/05/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Review process trends during the rain storm. Manually operated P1210 for testing. BIO1 level increased from 9 to 9.3 ft. in 15 minutes of P1210 running at 100% speed. Reduced chlorine multiple from 0.06 to 0.03 due to the high flows.
01/05/2023	KTV	MCC-MOM	PRG-PLC	Created SCADA alarm for IW2 high level. Programmed IW2 level comms between PLC6 and IW2. Created PLC6 alarms for Communications fail to IW2 and IW2 high level. Noticed the new EQ Smoothing mid-hour recalculation didn't work overnight. This appears to be caused by an ONS that is already triggered on the rung and preventing the rung from going true again. Created a separate ONS and branched around the primary control.
01/05/2023	DFH	MCC-MOM	OPR-WTO	Process review with KTV, EJT, and JRW.
01/05/2023	EJT	MCC-MOM	OPR-WTO	Training with Kyle and Daniel on EQP capacity in relation to MBR functionality.
01/05/2023	JRW	MCC-MOM	OPR-TRN	With EJT, DFH, and KTV. KTV reviewed MCC's maximum capacity regarding process. We are currently set at a 1:4 ratio, and EQ level extremely high. KTV explained ways in which to proceed, without causing mixed liquor concentration to drop or increase too much.
01/05/2023	DFH	MCC-MOM	SAM-WTO	Collect daily EFF, EFF Weekly B, and Weekly INF samples and tested permeate sample for pH and EC.
01/05/2023	EJT	MCC-MOM	OPR-WTO	Training with Daniel site layout zones 1000-7000, calibrated 2 pH probes, tested pH in Bio train2 aeration tank 3.
01/05/2023	GXK	MCC-MOM	OPR-WTO	Responded to alarm dialer call reporting active ch.2 alarm conditions. Found the cause for the alarm to be alarm 130: Lower OCF speed or flow anomaly. Investigated the logic on PLC2 and found the FC9300.ERR was greater than -10. Investigated and found that the EF9310 was running at the minimum speed SP of 54.2% but was still producing 2350 SCFM of flow which is 40 SCFM greater than the SP of 2310 SCFM. I reduced the minimal OCF speed SP to 50%, and once the PID controller adjusted the speed I was able to clear the alarm. Monitored MBR2 cleaning and MBR1 increased production. The M1 TMP went down to -1.1 PSI.

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01/05/2023	DFH	MCC-MOM	OPR-WTO	Inventory management. Located MX-3130 and 4 lifting cables. With EJT, calibrated portable hach pH probes and verified, okay. Measured pH in BIO2-AB1 at 7.14 with AA-3218 measuring at 6.3. Will need to return to check calibration and salt bridge on AA-3218.
01/05/2023	KTV	MCC-MOM	OPR-WTO	EQ level under control with slightly above normal EQ smoothing calculated and no rain is forecasted until next week. Returned system to automatic EQ flow control at 1.25 A Ratio and 6-hour smoothing. EQ flow reduced from 170 gpm to 100 gpm.
01/06/2023	KTV	MCC-MOM	OPR-WTO	Created composite schedules for all OITs and added their users to the email notification system. Decreased IW2 flow setpoint back to 70 gpm now that EQ level is back to normal.
01/06/2023	EJT	MCC-MOM	OPR-WTO	Reviewing log book and remote site check's,
01/06/2023	EJT	MCC-MOM	OPR-WTO	Continuing training on-site, with Kyle.
01/06/2023	KTV	MCC-MOM	OPR-WTO	Picked up JRW's OIT at City Hall. SCADA check and process training with EJT.
01/06/2023	EJT	MCC-MOM	OPR-WTO	Training on SCADA with Kyle.
01/06/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
01/06/2023	JRW	MCC-MOM	SAM-WTO	Took MCC's daily sample. Calibrated pH & EC, then took sample.
01/06/2023	EJT	MCC-MOM	OPR-WTO	Training - reviewing SCADA system.
01/06/2023	EJT	MCC-MOM	OPR-WTO	House keeping at the injection wells.
01/06/2023	GXK	MCC-MOM	PMT-GLB	Completed preventive maintenance.
01/07/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs. Noticed the NO3 analyzer is not working. Asked JAA to troubleshoot. He cycled the power but it didn't solve the issue. He reported that the analyzer display is flickering and not responsive. I will need to take further troubleshooting on Monday. In the meantime, I asked him to turn the power to the analyzer off.
01/07/2023	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrating the probe. Collect daily samples Iced and storage.
01/07/2023	KTV	MCC-MOM	OPR-WTO	Zone 6 Alarm - communications failure to IW2. Remote check showed no issues with the clearwell or IW2 operations, so it's likely that this alarm delay needs to be increased. General plant check okay.
01/08/2023	EDM	MCC-MOM	SAM-WTO	Took daily EFF samples and prepared sample paperwork for lab pick-up. Took daily pH and EC reads and added results to COC & log
01/08/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs.
01/08/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Due to expected overnight rain and the current EQT level of 5.1 ft. I increase the A ratio from 1 to 1.5 bringing the filtration flow up from 66 to 100 GPM. Reviewed logbook, sampling logs, and process logs.
01/09/2023	KTV	MCC-MOM	OPR-WTO	SCADA check okay. Trained JRW on SCADA check and basic system functions.

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01/09/2023	JRW	MCC-MOM	OPR-TRN	With KTV, KTV reviewed MCC's overall plant layout. Also reviewed general plant information especially relevant information such as EQ trends & the smoothing equation used to achieve the 20k goal. Along with standard parameters & compliance standards.
01/09/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Due to rain, and trend up in EQT level I increased production to the max. Based on the limiting factor of BIO2 ML feed to MBR filtration ratio of 4, at 540 GPM we are limited to filtration flow of 135 GPM, or 67.5 GPM per membrane. I set up the A ratio in manual to 2.65 and disabled the EQT level smoothing feature. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. I also operated P1210 in hand bringing the BIO1 level from 9.5 to 10 ft. I also throttled the BIO2 AB2, and AB3 process air flow valves 2 turns each to reduce the BIO2 air flow from 200 to 170 SCFM. Review recent DigAlerts emails.
01/09/2023	JRW	MCC-MOM	GEN-ADM	Reviewed MCC's flow path layout, and wrote notes in order to review. Also reviewed basic process knowledge.
01/09/2023	JRW	MCC-MOM	SAM-WTO	Obtained MCC's daily sample. First calibrated pH & EC sensor, then grabbed effluent sample. Used an umbrella to prevent rain contamination.
01/09/2023	JRW	MCC-MOM	OPR-TRN	With KTV, KTV further reviewed MCC's flow path & process. Went over entirety of flow path from collections to discharge. Also answered questions I had about the system. Then did research on certification education, contacted HR, contacted SWB.
01/09/2023	JRW	MCC-MOM	OPR-WTO	Continuation of training on MCC with KTV. Then packed for CJP & finished time logs.
01/09/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. The rain stopped later in the morning so the EQT level dropped faster than anticipated. I lowered the A ratio back to the normal 1.5 and reinitiated the EQT level smoothing feature. We are prepared for the next wave of rain expected tonight. Responded to Trojan parts order quote and added additional items to the list.
01/09/2023	RRV	MCC-MOM	OPR-WTO	Began receiving a steady stream of alarm emails that serve as high flow warnings due to rain beginning about 1820 hrs, so I began monitoring the system remotely. Discussed EQT rate of increase and remaining available storage in BIO1 (~30,000 gallons). Monitored system continuously overnight due to persistent heavy rain and alarms. Shut off P-1220 which was running deadheaded against higher head from P-1250 at near full speed. Initiated timed alarm bypasses and alarm resets as warranted throughout the night. Increased EQT High-Level alarm setpoint to a value higher than the current level every time it was reached to give warning of continued increase. The highest value I used ended up being 8.5 feet. Rain tapered off after that, with the EQT reaching a peak of 7.8 feet around midnight, and then trending continuously downward after that. As the EQT approached 4 feet, the EQ pumping rate was being held at max by the smoothing logic, when it was obviously not necessary. I know this would have worked itself out over time, but I am concerned about the sustained effect on the bioprocess, including possible loss of nitrification from extended time with low HRT in the bioreactor. Disabled smoothing and set the ratio to 0.7 to achieve a more reasonable net production rate of about 50 gpm, at least until the morning crew arrives and can verify effluent NH3-N.
01/10/2023	KTV	MCC-MOM	OPR-WTO	Reviewed group chat from overnight with GXK and RRV discussing system performance during rain. Remote check of process shows level under control and system back in AUTO flow control.

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Date	Name	Job	Task	Notes
01/10/2023	KTV	MCC-MOM	OPR-WTO	Arrived onsite and rain had started up again. Discussed current system settings with RRV. Programmed maximum flow rate for EQ smoothing to net 4Q of MLT flow at 100%. Checked process test results from DFH and put system flow back to normal.
01/10/2023	EJT	MCC-MOM	OPR-WTO	Reading log book, reviewing SCADA system, checking sample sign sheet and process log.
01/10/2023	DFH	MCC-MOM	SAM-WTO	Process checks measuring NH3, NO2, NO3. Alk, and Cl2.
01/10/2023	KTV	MCC-MOM	OPR-WTO	During flow rate discussions, decided to investigate system design specifications to get better cascading controls for handling peak flows. Found that by design our MLT is supposed to deliver 700 GPM. Discussed with GXK who is going to investigate the pump performance curve. Discussed new P-1210 and P-1220 installation requirements with RRV.
01/10/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Troubleshoot failed RT NO3 online analyzer.
01/10/2023	EJT	MCC-MOM	OPR-WTO	Checking sample log and preparing sample bottles.
01/10/2023	KTV	MCC-MOM	OPR-WTO	Continued SCADA training with EJT. Reviewed weekly A and B sampling requirements and how to verify the composite sampler is programmed to run on the correct day of week.
01/10/2023	GXK	MCC-MOM	OPR-WTO	Researched for documentation of P3160.
01/10/2023	EJT	MCC-MOM	OPR-WTO	Training with Kyle, Bio train2 process. Identification of sampling points, and identification via SCADA on what day to collect composite sample. Collection of (grab) samples: weekly process, weekly EFF (A), daily EFF.
01/10/2023	KTV	MCC-MOM	CON-DSN	Checked P-12X0 bucket sizes and piping. Took measurements and started planning out piping. Got rough pricing estimate for RRV on 10 HP and 15 HP options. Decided to focus on 10 HP option since it should produce ~200 gpm and doesn't require a new breaker for the bucket. Noticed it may be possible to use the flow switch conduit to convey the power for the new pumps, which will be self-priming and installed close to where the flow switch currently is. Investigated as-builts to see if I can determine if that conduit is connected to a spare conduit at the E-Stop - drawings imply that the spare conduit is Teed into the conduit that goes back to the MCC. Further investigation is required to confirm.
01/10/2023	KTV	MCC-MOM	OPR-WTO	Monitored system remotely. Rain has stopped and smoothing is working down the increased level well enough on its own. Weather forecast indicates rain has stopped until Saturday.
01/10/2023	KTV	MCC-MOM	OPR-WTO	Received a few zone 2 alarms - EQT insufficient pump up. New alarm logic isn't working as intended and still generates false alarms. These false alarms are more likely to occur when system flow is increased due to rain.

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Date	Name	Job	Task	Notes
01/11/2023	KTV	MCC-MOM	OPR-WTO	Found PLC2 List 0 bypass stuck. Programmed watchdog to set all alarm bypasses to enabled if the timer is greater than 1 but there's nothing recorded in the list. The problem appears to be related to bit 31, but further testing is required to confirm. On starting the VM, the same issue that happened in Nov happened again - part of the virtual HDD is lost. Was able to make a copy of the VM and restore to the 11/21 state, however the original VM snapshot isn't working and the 11/21 copy doesn't have the RSLogix license active. I'm able to program today, but will lose programming access after the trial period ends. Notified RRV for assistance. Continued researching peak hourly flow rates for the membranes and found the design peak is 262 GPM, which is 2.55Q. Called tech support for additional guidance and was told that we can run at peak hourly flow on rain water for as long as necessary provided the TMP remains good and MLSS doesn't concentrate too much. Discussed with GXK and sent email to RRV.
01/11/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Inspected the HACH AIT3552 that is in the BP tank. It is still measuring NOx. Rewired it back to the AI:Ch3 in M2 PLC. Tested that the signal is received on SCADA. Run EFF NO3 test in the lab. The HACH NOx was overstating the NO3 by about 3 mg/L. It will need to be calibrated.
01/11/2023	KTV	MCC-MOM	CON-DSN	Used as built drawings to figure out best installation method for P-1210 and P-1220 upgrade. Started P-1210 parts list.
01/11/2023	EJT	MCC-MOM	SAM-WTO	Collection of weekly EFF (B), weekly INF, and daily EFF. Updated sample sign sheet, calibrated pH/EC prob conducted test Ph-7.5, EC 1267.
01/11/2023	KTV	MCC-MOM	CON-DSN	Finished P-1210 parts list for plumbing and VFD installation and applied to P-1220 and P-1250 with necessary modifications. Discussed labor and details with RRV. Still need to finish conduit, mounting and venting lists.
01/11/2023	JRW	MCC-MOM	SAM-WTO	Assisted EJT with MCC sampling. Reviewed EC calibrations.
01/11/2023	JRW	MCC-MOM	GEN-ADM	Worked on housekeeping/time logs. This includes putting away CSE gear, cleaning rain gear used for CSE (jacket, pants, boots), cleaning testing bag (broken sample bottle glass), and cleaning truck. Then ran remote checks for plants, finished time logs.
01/11/2023	GXK	MCC-MOM	OPR-WTO	Continue reviewing MLT pumps and MBR design documentation. I tried to understand the selection of the MLT pumps and the reason for the design flow. Discussed possible solutions to the limited MLT pump flow with RRV and KTV. One of the solutions that came up was to core a path between the post anox #2 of the two trains and install a sluice gate to control it. That will allow us to use a single train but utilize both MLT pumps to feed both MBRs and thus double the effective production rate during peak rain periods.
01/11/2023	JRW	MCC-MOM	OPR-TRN	With RRV, RRV trained over PLC logic & usage.
01/11/2023	GXK	MCC-MOM	ENG-DSN	Started researching sluice gates configurations, manufacturers, and costs. Also refreshed my knowledge about the calculations of water flow through orifice, in order to size the core.
01/12/2023	EJT	MCC-MOM	OPR-WTO	Reviewing log book, sample sign sheet, process log and SCADA system.

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Date	Name	Job	Task	Notes
01/12/2023	MAA	MCC-MOM	OPR-WTO	Discussed housekeeping and truck wash with EJT. Reviewed logs and SCADA. IW2 maintenance is due but will wait on arrival of Operator to supervise, if possible. Plant walk, both odor beds have some weeds that will need to be removed. Verified SC-2320 remains locked out and emptied SC-2310 waste. Will consult with GXK regarding status of parts for repairs to SC-2320.
01/12/2023	EJT	MCC-MOM	OPR-GLB	House keeping.
01/12/2023	KTV	MCC-MOM	CON-DSN	Finished parts list for conduit, mounting VFD keypads and mounting pump stands for P-12X0. Discussed venting issue with RRV and decided to come up with mechanical and automated venting options as separate items.
01/12/2023	EJT	MCC-MOM	SAM-WTO	collection of MLSS from Bio2 A-3 and MBT for analysis, prep filters.
01/12/2023	MAA	MCC-MOM	OPR-WTO	Reviewed AER and MBT MLSS IPC-Lab test, process log data entry, factor calculation and AIT-3253 calibration data with EJT. Prepped filters and let dry, grabbed AER and MBT samples for MLSS analysis with EJT. Checked flex conduit for KTV at P-1250, showed EJT truck wash station and how to turn off sprinklers at odor beds and had him remove weeds.
01/12/2023	EJT	MCC-MOM	OPR-WTO	continuing house keeping, pulling weeds from odor beds and cleaning of composite INF/EFF containers.
01/12/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Started MicroC injection due to elevated nitrate of 4.9 mg/L. Run P8420 in hand at 50% speed. Reduced MBT production from 1150 to 700 GPD due to MLSS and UVT values trending down.
01/12/2023	EJT	MCC-MOM	SAM-WTO	conducting analysis for BOI-2-A3 MLSS, MBT MLSS sample and collection of daily EFF (grab) sample, Ph/EC testing.
01/12/2023	MAA	MCC-MOM	SAM-WTO	Ran secondary MLSS analysis for AER3 and MBT with EJT for comparison. Ran EFF NO3 analysis per GXK's request. Reviewed EJT's results from first tests.
01/12/2023	MAA	MCC-MOM	OPR-GLB	Grabbed paint and materials set up EJT to complete painting of actuator valve bodies on UV units. Trained EJT in correct time entries for sampling and assisted in some of his corrections.
01/12/2023	EJT	MCC-MOM	CMT-GLB	Painted / primer actuator valve. painted/primer actuator valve. Painted/Primer actuator valve.
01/12/2023	MAA	MCC-MOM	SAM-WTO	Completed MLSS analysis. Results are similar to EJT's, consulted with GXK regarding high MLSS result from AER 3 (~10,000mg/L) and got his ok to calibrate AIT-3253 to new factor. Trained EJT in inputting factor calibration. Per GXK's request took pH reading at BIO1 transfer point (6.51) and took pH reading at BIO2 transfer point as well just in case (7.11). Prior to pH checks, performed two point calibration check on handheld pH probe (Hach) with 4.0 and 7.0 buffers; passed.
01/13/2023	MAA	MCC-MOM	OPR-TRN	Reviewed SCADA. With KTV, reviewed proactive measures for equalization efforts for upcoming rainfall. Reviewed A ratio/smoothing. Category Training.
01/13/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
01/13/2023	MAA	MCC-MOM	OPR-TRN	Continued category training with KTV. Reviewed programming template.
01/13/2023	MAA	MCC-MOM	SAM-WTO	Collected Daily EFF sample, pH, EC and NO3-N readings. Updated sample and process log.
01/13/2023	MAA	MCC-MOM	PMT-GLB	Completed preventive maintenance.

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01/13/2023	KTV	MCC-MOM	OPR-WTO	Process meeting and rain planning with GXK and RRV. Decided to continue reducing level in BIO1 slowly to accommodate excess inflow if necessary.
01/13/2023	MAA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
01/13/2023	JRW	MCC-MOM	GMT-HSK	Assisted with organizing & stocking, then moved boxes using forklift underneath membrane roof to protect from rain.
01/13/2023	RRV	MCC-MOM	PRG-APP	Helped KTV set up his VM for remote PLC programming.
01/13/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Continue to look into the post-anox #2 core size calculations. Troubleshoot the RT NO3 analyzer with no success. Review the HACH AIT 3252 NOx analyzer manual and calibration procedures. MAA attempted to calibrate earlier but he reported the calibration failed twice. Inspected the probe and noticed the brownish deposit associated with sodium hypochlorite on the probe body. Used a low-dose ZEP solution to clean the optical path. Performed zero calibration followed by 5.56 mg/L standard calibration. The calibration was successful. The NOx reading was in line with the DR6000 results.
01/14/2023	KTV	MCC-MOM	OPR-WTO	Increased A ratio to 1.37 expecting 10,000 gpd additional utility water due to rain later today. Monitored system throughout the day to confirm automatic controls aren't falling behind.
01/14/2023	MAA	MCC-MOM	OPR-WTO	Grabbed daily EFF sample. Ran pH, EC and NO3-N analysis.
01/14/2023	KTV	MCC-MOM	OPR-WTO	Manually lowered hours to smooth to reach maximum flow an hour earlier than it would have automatically since EQ level was above 5 feet. Manually intervened once EQ reached ~6.8 feet and pumped ~0.5 feet to BIO1. Disabled smoothing so that I can go above the maximum if necessary, but so far level is steady as rain has started decreasing.
01/14/2023	MAA	MCC-MOM	OPR-WTO	Placed sample bottles delivered by Pat-Chem into lab. At MH-B6, inspected flow. Heavier flow from library. Observed for ~20 minutes with no changes in flow rates. Took videos and shared with KTV.
01/14/2023	KTV	MCC-MOM	OPR-WTO	Continued monitoring and pumped additional ~0.7 feet to BIO1 - in total, pumped ~10,000 gallons to BIO1 throughout the day.
01/14/2023	KTV	MCC-MOM	OPR-WTO	Continued monitoring and responding to alarms as necessary. Rain fall once again starting to decrease, followed by decreasing trend in EQ level.
01/14/2023	KTV	MCC-MOM	OPR-WTO	Rain stopped and isn't forecasted to start again until tomorrow night. Put smoothing back in AUTO at 3 hours to maintain max system flow, but allow for the system to reduce flow as the level comes down.
01/15/2023	EDM	MCC-MOM	SAM-WTO	Calibrated pH / EC, Took daily EFF samples and prepared sample paperwork for lab pick-up. Took daily pH and EC reads and added results to sample COC & log.
01/15/2023	KTV	MCC-MOM	OPR-WTO	Responded to multiple alarms caused by rain. Remote check shows system continues to run well in full automatic control.
01/16/2023	KTV	MCC-MOM	OPR-WTO	Responded to multiple alarms caused by rain. Remote check shows system continues to run well in full automatic control.
01/16/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks, process data trends, and logbook activity reviews. Legacy and Bluff parks pumping stations, and IW2 checks. Monitoring plant process status during heavy rain.

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Date	Name	Job	Task	Notes
01/16/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, reviewing SCADA system.
01/16/2023	DFH	MCC-MOM	GMT-AUT	2017 F350 will not start, engine struggling to turn over. Measured voltage on primary and secondary battery at 12.3v after 3 attempts to start engine. After fourth attempt the voltage dropped to 11.7v. Plugged charger into primary battery and let charge. After 15min the truck was able to turn over. With truck running, voltage was holding at 14.4v on both the primary and secondary batteries.
01/16/2023	DFH	MCC-MOM	GMT-AUT	Delivered F250 wheel and tire to Tire Man in Agoura to be replaced. Will be available to pick up tomorrow.
01/16/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reduced chlorine dose multiplier from 0.06 to 0.04. Reduced A ratio from 1.25 to 1. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Discussed HACH NOx analyzer calibration with MAA.
01/16/2023	MAA	MCC-MOM	SAM-WTO	Collected daily samples. pH, EC and NO3 readings.
01/16/2023	DFH	MCC-MOM	GMT-AUT	Picked up 2 batteries for 2017 F-350 at autoparts store and replaced batteries.
01/16/2023	JRW	MCC-MOM	OPR-GLB	Calibrated field DO probe. Took inventory for sampling bottles at MCC, should note we are missing 4 bags. According to inventory sheet we are currently missing: PDP annual eff, PCV-MBR Weekly EFF, CJP annual potable, and SOH monthly GW.
01/16/2023	GXK	MCC-MOM	OPR-WTO	Checked lab reagents inventory and placed an order.
01/16/2023	EJT	MCC-MOM	CMT-GLB	Painted tan in color. Painted.
01/16/2023	GXK	MCC-MOM	OPR-WTO	Continue troubleshooting the RT NO3 online analyzer. Connected the RT controller directly to a 24 VDC power supply. That didn't solve the issues. Searched for my tech support contact from last year's issues. Review the email exchange. Noted that I never went back and installed the Flow Detection circuit board they sent me. I went ahead and replaced the circuit board. That solved the issue with the analyzer. It is now back online. Noticed a Humidity warning of higher than 25%. Inspected the desiccant and it was dark which is an indication of saturation. Replaced it with a new desiccant and connected the saturated on to the power outlet to be recharged.
01/17/2023	KTV	MCC-MOM	OPR-WTO	Pre-job meeting with JRW, MAA and DFH for collections system maintenance starting today.
01/17/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Inspected lab reagents and online analyzers maintenance parts and materials inventory. Placed an order with HACH.
01/17/2023	KTV	MCC-MOM	SAM-WTO	Weekly A, Weekly Process and Daily EFF samples collected and left for courier pick up.
01/17/2023	JRW	MCC-MOM	PMT-GLB	Completed preventive maintenance.
01/17/2023	JRW	MCC-MOM	PMT-GLB	Completed preventive maintenance.
01/17/2023	GXK	MCC-MOM	OPR-WTO	Purchased ZEP concentrate solution for UV CIP. Cleaned the RT NO3 online analyzer, followed by zero calibration. Verify the reading is inline with the DR6000 measurement of EFF NO3.
01/17/2023	JRW	MCC-MOM	GEN-ADM	Ran inventory for new batch of sampling bottles that came in today. After this finished time logs.
01/18/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks. Bluff and Legacy park pumping stations, and IW2 checks- normal. Plant routine rounds.

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
01/18/2023	KTV	MCC-MOM	OPR-WTO	Morning meetings to discuss collections system work from yesterday that is continuing today. Reviewed recent process and alarm dialer changes with CEA.
01/18/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
01/18/2023	CEA	MCC-MOM	CMT-GLB	The pump was making a bad noise, further investigation revealed noise coming from a broken discharge pressure gauge, so removed gauge pump running - normally.
01/18/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
01/18/2023	KTV	MCC-MOM	OPR-WTO	Disabled Hypochlorite Pump 2 fail alarm since it is repeatedly triggering briefly yet not long enough to cause a dial-out. Plan to investigate cause of the alarm further and re-enable. Reviewed camera footage from collections work yesterday and took notes of possible issues to investigate further. Added remaining collections system items to the equipment list and google drive folders.
01/18/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Adjust RT NO3 analyzer offset to -0.2 in order to make it more accurately represent the NO3 reading by the DR6000 and the HACH AIT3252.
01/18/2023	KTV	MCC-MOM	OPR-WTO	Called Misco to get update on SC-2320 stabilizer wheel quote. Was told I would receive a quote either today or tomorrow. Discussed stabilizer wheel issue with GXK.
01/18/2023	EJT	MCC-MOM	SAM-WTO	Collection of weekly EFF B, weekly INF, and daily EFF. Calibrated pH/EC and ran testing on final effluent, cleaned composite sample container after use. final effluent quality check NH3-N, NO3-N, NO2-N, Alk, pre- Cl2, Post,-cl2 Update sample sign sheet and process log.
01/18/2023	CEA	MCC-MOM	SAM-WTO	Conduct MLSS samples analysis at the MCC lab. Training with EJT on lab equipment. Housekeeping.
01/18/2023	EJT	MCC-MOM	OPR-GLB	House keeping
01/18/2023	CEA	MCC-MOM	CMT-GLB	With GXK troubleshooting alarm conditions 23 and 30, removed LOTO and enabled power, cleared alarms condition, and leave SC-2320 enabled but not running.
01/18/2023	KTV	MCC-MOM	OPR-WTO	While updating the collections system google drive folders, found some folders DFH had made for the F line since they were missing when he uploaded videos from this Tuesday. Changed the map links to these new folders and removed the old folders. Fixed the naming on all of the folders to reflect the P100 designation in the equipment database (since Phase II will use overlapping letters).
01/18/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
01/18/2023	GXK	MCC-MOM	OPR-WTO	Responded to alarm dialer call reporting active ch.4 alarm conditions. Logged in remotely and found the cause for the alarm to be low UVT which resulted in an off-spec bypass. During troubleshooting, I noticed in the trends that UVT trend started dropping on Monday afternoon. I zero-calibrated the HF UVT analyzer and cleaned the cuvette. Attempted multiple approaches to bring the UVT up: to pulse MicroC to the process, increase and decrease pre-chlorination pump set point, increase UVT analyzer cuvette backpressure. Nothing seemed to solve the issue but the back pressure helped somewhat. I suspect maybe the UVT drop has something to do with the collection system jetting. For now we are back with UVT above 63% and forward discharge. I will continue troubleshooting tomorrow.

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
01/18/2023	KTV	MCC-MOM	OPR-WTO	Reviewed remaining line F footage and made notes of possible issues.
01/19/2023	CEA	MCC-MOM	OPR-WTO	Plant process checks. Bluff and Legacy parks pumping stations, and IW2 checks.
01/19/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Increased the pre-chlorination SP from 3 to 4 mg/L. 15 min later the UVT started to trend up from 66 to 67%. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. I asked EJT to test the lab EFF NO3 against the RT online analyzer. The RT was reading 2.719, while the DR600 measured 2.62 mg/L NO3-N. So they are pretty close now following yesterday's adjustments.
01/19/2023	EJT	MCC-MOM	SAM-WTO	Collection of daily EFF sample, calibration for pH, conducted pH,EC and NO3 analysis. Delivered sample to IPC North sample box.
01/19/2023	CEA	MCC-MOM	CMT-INT	Perform 2 points calibration - okay, verify readings 7.0 vs Hach handheld meter 7.1.
01/19/2023	CEA	MCC-MOM	OPR-WTO	Headworks check, inspect SC-2310, remove solids compactor trash, and rinse the fine screen. MBT process check enabled B-7120.
01/19/2023	GXK	MCC-MOM	OPR-WTO	Placed an order for parts for the UV system's annual maintenance and spare parts inventory. Talked to DFH about the possible effects of the collection system jetting on the EFF UVT. In response to repeating IW2 communication loss alarms, I asked CEA to visit IW2 and reboot the IW2 communication equipment and the PLC.
01/19/2023	CEA	MCC-MOM	OPR-WTO	Received alarms via emails indicating rotary screen 1 failure, remotely logged in, and confirm with KTV he arrived on-site to work on it.
01/19/2023	KTV	MCC-MOM	OPR-WTO	Zone 2 Alarm - email indicates Rotary Drum Screen 1 Failure and Running too long. Remote check shows screen 1 general fault. Headed onsite and found Screen Fault active on the LCP. Reset and ran screen manually while observing rotation. Everything looks good and the fault didn't trigger again, so put the system back in AUTO. Discussed current screen status with RRV and plan to investigate cause and corrective action further tomorrow.
01/20/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks, and plant routine rounds. Influent totalizer high flows investigation on the previous day revealed the source of higher flow is MCPLS with double the normal flow at almost 30 k gpd. Art's hydro Jetting crew is scheduled to come out today to conduct TV camera of the sewer lines at the MCP.
01/20/2023	MAA	MCC-MOM	OPR-WTO	Discussed collections and traffic control with KTV and JRW.
01/20/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
01/20/2023	JRW	MCC-MOM	GEN-ADM	With KTV, KTV went over MCC's plant check & reviewed information about our filters & their relation to utility water usage. Along with this reviewed active alarms, specifically for drum screen #2.
01/20/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, remotely monitoring site.

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Date	Name	Job	Task	Notes
01/20/2023	KTV	MCC-MOM	OPR-WTO	SCADA check, plant walkthrough and trend review. Continued JRW SCADA training. JRW noticed high-level alarm remains active for IW2. Investigated and found high level appears likely due to high groundwater level more than high injection flow, but since increasing injection flow level is slightly higher than it was prior. Reduced injection flow to 100 gpm for now, and plan to program automatic dosing flow control based on clearwell level. Flow totalizers also show a higher overall influent flow to the plant over the past few weeks. Some of this is explainable by rain, IW and collections system maintenance, however, further investigation of unusual flow source is still required since the known sources don't account for all of the increased flow.
01/20/2023	KTV	MCC-MOM	OPR-WTO	Reviewed scope of work for the day with JRW. Trained on headworks flow path and fine screens operation. JRW will prepare the stabilizer wheel mount and deliver to a welder today for repair.
01/20/2023	JRW	MCC-MOM	CMT-GLB	Worked on removing bearing/roller from structural portion in order to weld parts back together. Drove to Annawalt to purchase a rubber mallet & hole punches.
01/20/2023	KTV	MCC-MOM	PRG-PLC	Finished my laptop VM configuration and attempted to connect to the PLC. Was able to connect however my license isn't working since it is currently downloaded on my other VM.
01/20/2023	JRW	MCC-MOM	CMT-GLB	With KTV, worked on re-installing newly welded stabilization roller.
01/20/2023	KTV	MCC-MOM	CMT-GLB	Received repaired stabilizer wheel assembly from JRW and installed with JRW's help.
01/20/2023	KTV	MCC-MOM	CMT-GLB	Final inspection shows that the stabilizer may be too far from the drum and there is a periodic deep knocking sound which may be the root cause of the failure. The screen will have to be further disassembled to investigate but is available in an emergency if the other screen fails.
01/21/2023	CEA	MCC-MOM	OPR-WTO	Plant status check. Bluff and Legacy parks pumping stations, and IW2 checks.
01/21/2023	JRW	MCC-MOM	SAM-WTO	Calibrated pH & EC probe, then took MCC's daily sample.
01/22/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks- normal.
01/22/2023	EDM	MCC-MOM	SAM-WTO	Calibrated pH / EC, Took daily EFF samples and prepared sample paperwork for lab pick-up. Took daily pH and EC reads and added results to sample COC & log
01/23/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks. Chemicals room, Headworks, and MBT process checks.
01/23/2023	EJT	MCC-MOM	GMT-JAN	cleaning lab.
01/23/2023	CEA	MCC-MOM	CMT-GLB	Conducting an inspection of the unit revealed a damaged trunnion wheel. I replaced two trunnions wheels at the inlet side of the screen.
01/23/2023	KTV	MCC-MOM	CMT-GLB	Trained EJT on motor inspection procedures, how the mixer works, and what the process reason for the mixer is. Located all parts and reviewed assembly procedure. Installed new O-Rings and wire rope.
01/23/2023	EJT	MCC-MOM	SAM-WTO	Collection of daily EFF sample and conducted pH/EC analysis
01/23/2023	EJT	MCC-MOM	CMT-GLB	Installation of mixer, unable to complete will have to continue later, need more parts.
01/23/2023	CEA	MCC-MOM	CMT-GLB	Completed replacement of the two inlet side trunnions wheels. Picked up and cleaned up the job site.
01/23/2023	KTV	MCC-MOM	CMT-GLB	Finished wiring but during mixer installation realized that the second wire rope was missing. Disassembled mixer for now and plan to install after locating the rope.
01/23/2023	EJT	MCC-MOM	CMT-GLB	Disconnected the mixer and returned the hoist

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
01/24/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks, made routine rounds MBT, chemicals room, and Headworks. Bluff and Legacy Parks pumping stations and IW2 checks. Reset MBT low permeate flow alarm, enabled aeration process, and resumed production.
01/24/2023	KTV	MCC-MOM	OPR-WTO	Calculated required purging times for reuse blowoffs in preparation for collections system work this morning.
01/24/2023	CEA	MCC-MOM	CMT-GLB	Pump running and making an unusual noise, review pump operation data trends, disabled the pump and hang LOTO for inspection, review US Motor O&M.
01/24/2023	KTV	MCC-MOM	CON-DSN	Finished P-12X0 air relief proposal and reported to RRV.
01/24/2023	CEA	MCC-MOM	CMT-GLB	Inspect the pump, remove guards to check the fan and shaft coupler connection, and lube with Polyrex grease. Removed LOTO and test, the pump is still making noise discussed with KTV the possibility of motor bad bearings.
01/24/2023	KTV	MCC-MOM	OPR-WTO	Provided SCE access to IW1 for electric meter replacement.
01/24/2023	KTV	MCC-MOM	PMT-MET	Completed preventive maintenance.
01/24/2023	CEA	MCC-MOM	SAM-WTO	Collect Eff weeklies A, monthlies, dailies, and process samples for lab analysis.
01/24/2023	CEA	MCC-MOM	SAM-WTO	Conduct Eff quality analysis and set up MLSS samples for analysis. Lab housekeeping and inventory.
01/25/2023	CEA	MCC-MOM	OPR-WTO	Plant process checks and conduct daily routine rounds. Bluff and Legacy Parks pumping stations, and IW2 checks.
01/25/2023	CEA	MCC-MOM	CMT-GLB	Flushed RAS / WAS lines with plant high-pressure water. Exercise WAS and MBR tanks drain lines.
01/25/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
01/25/2023	KTV	MCC-MOM	OPR-WTO	Finished transferring ~5,000 gallons from BIO1 to BIO2. Increased MLR speed from 95% to 97% since ORP is elevated due to lower organic loading over the past week.
01/25/2023	DFH	MCC-MOM	GMT-AUT	Filled Vactor and prepared for Collections PMT. On drive to MH-D12 noticed drop in brake air pressure. Found DelVal pneumatic rack and pinion actuator for the blower air relief leaking air from position indicator and stroke adjustment bolts. With MAA, removed Stroke Adjustment Bolt and inspected rubber gaskets, okay. Reinstalled, tightened, tested, okay.
01/25/2023	CEA	MCC-MOM	SAM-WTO	Collect Eff weeklies B (Inf and Eff)and daily samples for lab analysis, and prepare cooler for courier pick up.
01/25/2023	CEA	MCC-MOM	CMT-GLB	P-1150 running at 59 HZ speed, cleaned the membranes basket and restart the pump speed is still running at 59.0 HZ, reported the finding to RRV.
01/26/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks, and daily routine rounds. Bluff and Legacy parks pumping stations, and IW2 checks.
01/26/2023	JRW	MCC-MOM	SAM-WTO	Obtained MCC's daily effluent sample.
01/26/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
01/26/2023	JRW	MCC-MOM	OPR-GLB	Cleaned up pallets & piping from entrance area of MCC. Pallets are stored behind containers, and piping/tubing is stored in headworks.
01/26/2023	CEA	MCC-MOM	GMT-HSK	Inspection/housekeeping in electrical room 4000 and Blowers room 3000.
01/26/2023	CEA	MCC-MOM	OPR-WTO	Observed MBR 2 CC completed, and verify chemical feed dose during the process. Lower zone unusual high flows condition > 300 gpm disabled Lower zone P-6220 heading to downtown Malibu for further investigation while received a call from DHF explaining the high flow due to ruse line maintenance work in progress, enabled P6220 and resumed the work. Increased production A Ratio from 1.20 to 1.35 EQT level increasing rapidly due to sewer lines maintenance work in progress.

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Date	Name	Job	Task	Notes
01/26/2023	JRW	MCC-MOM	OPR-GLB	Cut up piece of wood into 28 in circle for KTV using jigsaw. Then finished time logs.
01/26/2023	JAA	MCC-MOM	OPR-GLB	Clean and put away equipment used.
01/27/2023	CEA	MCC-MOM	OPR-WTO	Plant process checks, chemicals room, headworks, and UV process checks. Bluff and Legacy Parks pumping stations and IW2 checks.
01/27/2023	KTV	MCC-MOM	OPR-WTO	Reviewed time-lapse camera installation requirements with DFH. Formatted memory card and tested camera settings prior to installation in MH-B6. Prepared for MX-3130 maintenance and P-6210 inspection. SCADA check and trend review okay. Updated EQ tank insufficient pump-up logic to reset the timer whenever a pump turns on. This should prevent false alarms.
01/27/2023	EJT	MCC-MOM	OPR-GLB	Built 3 hand carts.
01/27/2023	DFH	MCC-MOM	SAM-WTO	Collected permeate sample and tested for EC, pH, NH3, NO2, NO3, Alk, and Cl2.
01/27/2023	EJT	MCC-MOM	SAM-WTO	collection of daily EFF sample, conducted Ph/EC test, placed sample into IPC north sample box.
01/27/2023	JAA	MCC-MOM	CMT-MET	By KTV request disassemble top part of the case of the pump to check bearings since pump start making unusual noises.
01/27/2023	EJT	MCC-MOM	CMT-GLB	installing mixer inside bio 1
01/27/2023	DFH	MCC-MOM	CMT-ELT	With EJT, added LOTO to open breaker and began wiring of backing plate to mixer.
01/27/2023	KTV	MCC-MOM	OPR-WTO	Discussed scope of work and supervised installation of MX-3130 and disassembly of P-6210 motor. Unable to test MX-3130 rotation due to moisture relay latching in. Gave some tips to DFH and EJT for fixing getting the relay to reset and asked CEA to take over as operator.
01/27/2023	EJT	MCC-MOM	CMT-GLB	trouble shooting mixer not working Carlos assisted and advised we pull mixer out and conduct more checks.
01/27/2023	DFH	MCC-MOM	CMT-ELT	Lowered mixer into deox basin just above water level to bump test and verify rotation. With KTV, removed LOTO and closed breaker to MX-3130. KTV attempted to run mixer but faulted. Upon further inspection, the fault is showing moisture fault at the bucket. Verified wiring with KTV and was advised that the float switch inside the mixer may be stuck in the closed position. Made many attempts at shaking the mixer and resetting at the bucket but it did not clear the fault. Continued troubleshooting with CEA, inspected the MiniCAS inside the bucket and attempted to reset manually. MiniCAS is showing a seal leak fault which I believe was the original problem this mixer had. After multiple tries of trying to clear fault and CEA switching the MiniCAS with another, we were unable to get the mixer to clear. Removed mixer and stored inside OPS building. Will need to partner with KTV on next steps.
01/27/2023	JAA	MCC-MOM	CMT-MET	After removing the top part of the pump case confirming that the bearing was damaged, reported it to KTV, he will place the order for the replacement parts needed. Reassemble the pump and cover it until we receive the parts to fix it.
01/27/2023	CEA	MCC-MOM	CMT-GLB	With DHF and EJT attempted to start the mixer after electrical wiring but failed to start. Suit up with appropriate PPE and open the bucket. MiniCas fault shows a "seal leak " fault Attempt to reset the fault with no success swapped MiniCas unit with a spare on hand but the fault is still present. Hang LOTO for DHF to remove and disconnect the mixer.
01/27/2023	CEA	MCC-MOM	CMT-GLB	Alarm "Insufficient Pump Up" condition: A review of flow trends shows P-1250 flow briefly decreased, inspect P-1250 no issues found pump is running back to normal. Monitoring plant processes.

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Date	Name	Job	Task	Notes
01/27/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
01/28/2023	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrate the probes. Collect daily samples Iced and storage.
01/28/2023	KTV	MCC-MOM	OPR-WTO	Remote SCADA and trend review okay.
01/29/2023	EDM	MCC-MOM	SAM-WTO	Calibrated pH / EC, Took daily EFF samples and prepared sample paperwork for lab pick-up. Took daily pH and EC reads and added results to sample COC & log
01/29/2023	KTV	MCC-MOM	OPR-WTO	Received multiple zone 2 alarms throughout the night. All alarms are expected due to rain and system is handling the rain without need for intervention.
01/30/2023	CEA	MCC-MOM	CMT-GLB	MBR production halt, membranes air scour B-46X0 shut down; check blowers VFD faults showing CD10 C Card Timeout, reset and attempt to restart with no success, manually test MBR related equipment BFV-46X0 - okay, after discussing the issue with KTV got instructions to power cycle PLC4 which corrected the problem. Enabled MBR aeration and resumed production. Monitoring plant process.
01/30/2023	KTV	MCC-MOM	OPR-WTO	Received another alarm caused by rain overnight, and a subsequent zone 4 alarm while driving onsite. On arrival, met up with CEA who notified me that B-46X0 wasn't running due to a comm failure. Reviewed his troubleshooting and attempted to start the membranes with no success. Instructed CEA to do a complete power cycle of the blowers and the entire PLC4 cabinet while I set up my laptop to connect to the PLC. By the time I was able to connect to the PLC, the problem had been corrected by the power cycle and the system was running normally.
01/30/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks, Bluff and Legacy parks, and IW2 checks.
01/30/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log and reviewed SCADA system With Kyle on analyzing trends.
01/30/2023	MAA	MCC-MOM	OPR-WTO	SCADA check and log review. Discussed pending Sewer jetting and blow-offs with DFH. Grabbed Collections binder, made copies of thus week's jetting and cam work to make two more binders for cam and traffic control for easier note-taking in field.
01/30/2023	MAA	MCC-MOM	CMT-ELT	Troubleshooting Moisture fault at Mixer with EJT. Tested resistance at stator housing, ~330ohms which is resistance in alarm state, normal resistance should be ~1500 ohms. Used crane to set mixer in horizontal position and shook mixer, but ohms remained in alarm state. Drained oil from mixer and retested ohms, no change. Decided to leave mixer without oil and oil ports off and re-test in a day or two to see if any moisture present dissipates between now and then.
01/30/2023	EJT	MCC-MOM	CMT-GLB	Trouble shooting mixer ohms from T1-T2 are 330.0 which is leaving the mixer in alarm. Mario and I Drained The oil and it appears to have water inside with the oil, we flushed out the oil chamber with air and now allowing it to dry completely before we continue trouble shooting.
01/30/2023	KTV	MCC-MOM	OPR-WTO	Discussed MBT operation with CEA - production flow is much lower calculated. This is restricting our ability to waste. CEA will do maintenance today, but for now doubled production by increasing the time from 4 min to 8 min.
01/30/2023	MAA	MCC-MOM	GEN-ADM	Purchased binders for Traffic Control and Cam notes during collections maintenance.
01/30/2023	CEA	MCC-MOM	OPR-GLB	Troubleshooting EQP2 running with zero flow, amperage check at 2.5, manually running the pump, and confirming zero discharge flow will remove the pump at the next site visit for further investigation.
01/30/2023	EJT	MCC-MOM	SAM-WTO	Collection of daily EFF sample, conducted ph/EC calibration and analysis, recorded pH And Temp on COC.

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Date	Name	Job	Task	Notes
01/30/2023	MAA	MCC-MOM	CMT-ELT	Continued troubleshooting mixer. Opened connection board and checked wiring of internal leakage sensor, evidence of wires pinched but no breaks or broken insulation. Re-tested ohms, no change.
01/30/2023	CEA	MCC-MOM	OPR-WTO	MBT process checks, troubleshooting permeate pumps low flow.
01/30/2023	EJT	MCC-MOM	CMT-GLB	Continued trouble shooting mixer, adjusted harness connections, tested omhs still at 330.0
01/30/2023	KTV	MCC-MOM	OPR-WTO	Supervised MAA and EJT troubleshooting MX-3130. It appears likely that MX-3130 will need to be returned to the motor shop to check the position of the moisture switch. Trained MAA and EJT on process air balance and readjusted air to BIO1 since I noticed poor mixing in AB2 and AB3.Manually transferred ~2000 gallons from BIO1 to BIO2 throughout the day.
01/30/2023	CEA	MCC-MOM	CMT-GLB	MBT solids storage tanks: shut down the aeration process and hang LOTO, flush diffusers with plant high-pressure water, exercise airlift pumps, verify and adjust flow solenoid valves operations - normal. Removed LOTO, and resumed aeration and filtration processes.
01/30/2023	MAA	MCC-MOM	OPR-WTO	With EJT and KTV; checked air balance at BIO1. Opened BFV's for AER1 and AER2. Discussed air balance with KTC and EJT.
01/30/2023	EJT	MCC-MOM	OPR-WTO	With Kyle and Mario, made adjustments to aeration blower valve on Bio train1, aeration tank 2 and 3, in order to balance air distribution.
01/30/2023	MAA	MCC-MOM	OPR-GLB	Reviewed drawings for LSH-6510 and LSH-6520 for replacement with LIT in the upcoming days. Found wiring path to be 24VDC from PLC2 to JB-C6510 to LSH-6510/6520.
01/30/2023	EJT	MCC-MOM	GMT-JAN	Collection of trash inside the lab and from headworks compactor
01/30/2023	EJT	MCC-MOM	OPR-WTO	Reviewing ignition SCADA trends
01/30/2023	MAA	MCC-MOM	OPR-WTO	Walked through peculation pond to physically locate JB-C6510.
01/30/2023	KTV	MCC-MOM	PRG-PLC	Finished PLC6 hardware alarms list. Created compliance totalizer email notifications for values outside of the normal range for quicker investigation.
01/31/2023	RRV	MCC-MOM	PRG-PLC	Reviewed logic to see why a false high average turbidity value of 0.6 ntu was stamped into the compliance record on 11/17/2022. Traced problem to the absence of the PRODUCTION condition in the averaging logic. PRODUCTION is determined logically by analysis of various valve positions and a minimum associated flow rate of 1 gpm, and was already being used as a condition for the max ntu and greater than 0.2 ntu percent of day calculations. I added it to the averaging logic as well, which will prevent a recurrence of the false high stamp issue. While doing this work, I noticed the PRODUCTION bit was false, which I found odd, however after looking into it, it is being caused by low EQT level, which directs product to the EQT intentionally via the bypass, to prevent the membranes from shutting down.
01/31/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks. Headworks, chemicals room, MBT, and plant routine rounds. Bluff and Legacy Parks pumping stations, and IW2 checks.
01/31/2023	KTV	MCC-MOM	OPR-WTO	Set up time-lapse camera with new batteries and SD card to test condition following inspection over the weekend. Video seems to indicate possible water damage. Set camera to inspect MBT flow rate. Reviewed MBT performance yesterday and increased time caused wasting to double as expected from 400 gallons to 800 gallons. Increased permeate flow setpoint from 4 to 6 gpm which should result in ~1200 gpd until we can do a maintenance clean.

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
01/31/2023	CEA	MCC-MOM	SAM-WTO	Collect weekly process samples for lab analysis. Set up process MLSS samples for IPC lab analysis.
01/31/2023	KTV	MCC-MOM	OPR-WTO	Reviewed time-lapse camera footage of MBT flow. Video shows flow is pulsing rather than consistent, which matches flow meter trends. CEA started maintenance clean. Reviewed wasting flow rate trends from MBR to MBT, and flow rate has increased back to normal, 30 - 40 gpm, since CEA flushed the line. Time-lapse camera appears still functional, plan to test with a moisture shield this week.
01/31/2023	CEA	MCC-MOM	CMT-GLB	Discussed with KTV MBT MBR poor filtration performance and decided to perform MBR chlorine CIP. Conduct CIP filled MBR with chlorine solutions 4 gals.
01/31/2023	CEA	MCC-MOM	SAM-WTO	Collect Eff weekly A and daily samples for lab analysis, and conduct Eff quality and process MLSS samples analysis. Lab general housekeeping.
01/31/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
01/31/2023	CEA	MCC-MOM	CMT-GLB	MBT MBR: CIP completed, flushed membranes, enabled aeration process, verify and adjusted airlift pumps, purged P-7320 and resumed filtration. Observed filtration performance.
02/01/2023	DFH	MCC-MOM	GMT-DIG	Dig Alerts, A222840679, A222930195, and B230030236. B230270350, I was unable to find markings so I labeled it as no conflict for now.
02/01/2023	EJT	MCC-MOM	SAM-WTO	Collection of daily EFF sample, weekly INF composite sample, and weekly EFF composite sample. Calibration of pH EC and ran testing on daily EFF sample. Stored sample in IPC North sample box.
02/01/2023	KTV	MCC-MOM	OPR-WTO	Continued transferring from BIO1 to BIO2 to prepare BIO1 for extra storage and eventual use. Note that ORP and NO3-N have decreased apparently following my MLR speed increase last week from 95% to 97%. NO3-N is lower than ideal but allows extra room for transfer so I'm leaving as is for now and plan to run transfer overnight.
02/01/2023	KTV	MCC-MOM	CON-ELT	Finished draft of network map of electrical room 6000 for all server connections.
02/01/2023	DFH	MCC-MOM	SAM-WTO	Collect permeate sample and tested for NH3, NO2, NO3, Alk, and Cl2.
02/01/2023	EJT	MCC-MOM	OPR-WTO	reviewed log book, sample sign sheet, and process logs.
02/02/2023	KTV	MCC-MOM	OPR-WTO	Notified by CEA of low UVT on arrival this morning. He cleaned the cuvette and UVT increased to the low side of normal ~66.5%. This is likely due to transferring from BIO1 to BIO2. Also received some warning alarms for airflow anomaly to BIO2. Airflow to BIO2 has decreased from ~190 SCFM to ~160 SCFM since rebalancing flow last week. Adjusted BIO1 air flow down one full turn for each BFV. Result was decrease from 250 to 190 SCFM in BIO1 and increased from 160 to 180 SCFM in BIO2. Plan to stop transfer today to allow for preparation to use the sump pump hose for SC-2320 maintenance on Monday, and resume transfer on Wednesday with daily UVT cuvette cleaning. Daily checklist, SCADA and process training with JRW.
02/02/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/02/2023	CEA	MCC-MOM	OPR-WTO	Plant operations check and review process data trends, with KTV, discussing low UVT percentage, MBT filtrate pump performance, and BIO2 MLSS concentration processes. Bluff and Legacy parks pumping station checks.
02/02/2023	JRW	MCC-MOM	OPR-TRN	Training over MCC's compliance points & flow path with KTV.
02/02/2023	KTV	MCC-MOM	OPR-WTO	Detailed flow path and plant walkthrough training with JRW. Calculated current OIT hours and notified all OITs of their current progress.

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
02/02/2023	JRW	MCC-MOM	OPR-WTO	General on-site plant check, checked turbidity, UVT & UV dosage, clear well levels, upper utility water flows, and general equipment plant check.
02/02/2023	JRW	MCC-MOM	GMT-HSK	General housekeeping, organized COC's, refilled bathroom paper towel dispenser.
02/02/2023	JRW	MCC-MOM	SAM-WTO	Calibrated pH & EC probe. Obtained MCC's daily sample.
02/02/2023	KTV	MCC-MOM	CON-DSN	Continued network map of electrical room 6000.
02/02/2023	KTV	MCC-MOM	CON-DSN	Finished electrical map draft of PLC6 and PLC5 cabinets. Updated drawing to allow space for the remaining connections.
02/02/2023	JRW	MCC-MOM	OPR-WTO	Obtained sample from EQ, then ran EC analysis to compare MCP's EC to MCC. MCP's EC resulted as 2.19 mS, which is comparable to injection well's backwash EC. Infiltration extremely likely.
02/02/2023	JRW	MCC-MOM	OPR-TRN	Training with KTV in analyzing EC results. KTV also reviewed information from today in relation to results & MCC's process.
02/02/2023	KTV	MCC-MOM	PRG-PLC	Tested serial connection to PLC6 managed switch. Able to connect and check IP address and other settings. Unable to access the switch through ethernet despite knowing the IP address. Further investigation is required to determine why.
02/03/2023	MAA	MCC-MOM	OPR-WTO	SCADA, trends and log review. Noticed RW Clearwell level lower than normal, 10.7ft. Checked trends; FIQ-6101 indicates flow from ~9pm to 5am this morning. Totalizer also indicates over 20kgal so far today. Consulted with KTV and discussed. Activity is reasonable as bluffs park irrigates overnight and increased moisture levels and seasonal changes have reduced bluffs park irrigation intervals. KTV notified that BFV-6121 should be open (appears closed on SCADA), verified physical position of BFV-6121; open. Changed status of BFV-6121 on SCADA to OPEN. Set up Calendar for pick up of 2021 F250 from Whittier.
02/03/2023	MAA	MCC-MOM	CMT-GLB	Re-tested moisture switch but ohms remain at 330. Tested by placing mixer horizontally, vertically, turning it 360 degrees and shacking it as much as possible but ohm reading did not change from 330. As instructed by KTV, placed spare parts in bay 4 and placed new spare parts kit along with mixer in cart. Need assistance from second person to secure cord as hatch requires two ppl to move, will do so when more personnel arrive. Preparation for troubleshooting. Removed pump hose from BIO1 and closed hatches. Placed pump, tripod and hoist at IPC container. Moved hose to headworks.
02/03/2023	MAA	MCC-MOM	SAM-WTO	Collected daily sample, ph and EC checks.
02/03/2023	MAA	MCC-MOM	GMT-HSK	Headworks housekeeping.
02/03/2023	JAA	MCC-MOM	GMT-HSK	Perform housekeeping on headworks.
02/03/2023	MAA	MCC-MOM	GMT-AUT	Troubleshooting EDM's F250 engine code P0401. Checked air filter, clean and coolant hoses; ok. Further inspection required by automotive technicians. Ford dealer nearest date is 2/15. Consulted with DXP; Malibu Auto Care is certified for this type of repairs. Took truck down to Malibu Care but wait time is excessive; made appointment for first thing Monday morning.
02/03/2023	DFH	MCC-MOM	CMT-GLB	Started building locking cylinders, cores, and cams to prepare for rekeying of site.
02/03/2023	MAA	MCC-MOM	CMT-GLB	With JAA; secured electrical cord and closed hatch.
02/03/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
02/03/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/03/2023	CEA	MCC-MOM	OPR-WTO	Plant operations check, and conduct plant routine rounds. Headworks, MBT, and UV system performance checks. Bluff and Legacy parks pumping stations, and IW2 checks. AIT-5100.022: Analytical Indicating Transmitter:UV Disinfection:UV Transmittance Transmitter:Unit: Follow Calibration Procedure.
02/04/2023	KTV	MCC-MOM	OPR-WTO	Remote SCADA and trend review okay.
02/04/2023	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrate the probes. Collect daily samples Iced and storage.
02/04/2023	KTV	MCC-MOM	OPR-WTO	Rotary Drum Screen 1 Failure alarm. Arrived onsite and reset the alarm. Rotary drum screen appears functional. Monitored a normal influent pump cycle and the screen is working normally.
02/05/2023	EDM	MCC-MOM	SAM-WTO	Calibrated pH / EC, Took daily EFF samples and prepared sample paperwork for lab pick-up. Took daily pH and EC reads and added results to sample COC & log
02/05/2023	KTV	MCC-MOM	OPR-WTO	Remote SCADA and trend review okay.
02/06/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/06/2023	CEA	MCC-MOM	OPR-WTO	Plant process checks. Bluff and Legacy parks pumping stations and IW2 checks.
02/06/2023	EJT	MCC-MOM	OPR-WTO	Reviewing log book, sample sign sheet, process log. reviewed clear well level expectations and site-specific maintenance with Kyle.
02/06/2023	MAA	MCC-MOM	CMT-GLB	With DFH and EJT; removed covers from unit for maintenance and inspection of trunnion and stabilizing wheel. Noticed what appeared to be some play at motor pinion. Inspected pinion, play is normal but it does appear that teeth on pinion have wear.
02/06/2023	DFH	MCC-MOM	CMT-GLB	With MAA, removed main unit cover, trunion wheel covers, and access doors to view unit operation.
02/06/2023	JRW	MCC-MOM	OPR-WTO	With KTV & EJT, KTV reviewed previous issues regarding MCC's clearwell. Along with this went over East Side operations.
02/06/2023	EJT	MCC-MOM	CMT-GLB	Trouble shooting drum screen 2 removed screen, and trouble shooting the play between Crank shaft and gear.
02/06/2023	KTV	MCC-MOM	OPR-WTO	Supervised and assisted with disassembly of SC-2320 for inspection.
02/06/2023	DFH	MCC-MOM	CMT-GLB	Continued with KTV, MAA, and EJT. Reviewed trunion and stabilizer wheel operation and position on the drum. Looks like there is some sort of shift in the drum when rotating. Drained unit of water, cleaned drum, sprayers, and accumulated grit.
02/06/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Got a brief from KTV about several issues and projects progress.
02/06/2023	KTV	MCC-MOM	PRG-SDA	Added process air flows to main overview screen. Removed the old alarm dialer screen and made the SCADA alarms accessible from the new screen. Removed radar chart from the navigation bar to prevent script errors. Adjusted the alarm bar size and configuration to make it easier to read, but was unable to contain it to the screen size.
02/06/2023	MAA	MCC-MOM	CMT-GLB	Continued maintenance on unit. Measured grit levels on channel and took pictures, highest amount measured ~1.5". With Vactor; pumped out grit and cleaned channel.

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
02/06/2023	EJT	MCC-MOM	CMT-GLB	Removed drum sprayers and purged both sprayer line ensuring they are operating correctly, removing grit from casing inside rotary drum
02/06/2023	JRW	MCC-MOM	CMT-MET	With EJT, DFH, MAA. Assisted in corrective maintenance on drum screen to troubleshoot rotational noise.
02/06/2023	CEA	MCC-MOM	OPR-GLB	Discussing MBT performance with GXK; shut down MBT in preparation for CC. Prepare chemical solution and inject the solution.
02/06/2023	DFH	MCC-MOM	CMT-GLB	Continued with MAA, EJT, and JRW. Inspecting drum rotation on trunion and stabilizing wheels. The north stabilizing wheel has visible wear into the wheel, and the south stabilizing wheel is sitting about 1/2" away from the collar of the drum. Reviewed the positions of the wheels and pinion gear with GXK, decided to adjust the south stabilizing wheel ~1/8" closer to the collar. Re-assembled lid, covers, and access panels to test run the unit.
02/06/2023	JRW	MCC-MOM	CMT-MET	Continuation of rotary drum screen investigation.
02/06/2023	EJT	MCC-MOM	SAM-WTO	Collection of daily EFF sample, calibration of pH/ EC and ran testing recorded pH and Temp on COC.
02/06/2023	MAA	MCC-MOM	CMT-GLB	Continued maintenance of unit. Washed down drum. With GXK, inspected trunnion and stabilizing wheels. Made adjustment to left side stabilizing wheel of ~1/8" (facing west). Placed all covers back into place.
02/06/2023	EJT	MCC-MOM	CMT-GLB	After cleaning and removing the grit from the rotary drum Golan inspected the operation conditions.
02/06/2023	GXK	MCC-MOM	OPR-WTO	Inspected the work on the finescreen#1. Inspected the alignment of the gear pinion and driven gear -it was good. Inspected the stabilizer wheels contact ribs and they had some waviness. Adjusted the stabilizer wheel according to the most extreme contact point. All looks good so I approved closing the screen up.
02/06/2023	KTV	MCC-MOM	OPR-WTO	Prepared MX-3130 for warranty return to PumpMan to fix the leak-detect float. Ordered parts for MX-3130 installation and SC-2320 repair. Visually observed air balance to BIO1 and rebalanced.
02/06/2023	GXK	MCC-MOM	OPR-WTO	Followed up with CEA about the MBT chemical cleaning. I asked CEA to use 10 gallons of sodium hypochlorite for the cleaning solution. Inspected the finescreen#1 after it was put back together. Tested rotation, and although there is a slight misalignment between the gears it is minor and I think it can go back into rotation service. For now, I put the system back in Auto but not into operation. Trained EJT and JRW on AIT-6006 maintenance. We replaced the reagents and we performed sampling cell cleaning.
02/06/2023	JRW	MCC-MOM	CMT-MET	Continuation of assisting in rotary drum screen investigation/maintenance.
02/06/2023	MAA	MCC-MOM	CMT-GLB	Re-checked trunnion and stabilizing wheels with KTV. Closed up covers and cleaned up area.
02/06/2023	DFH	MCC-MOM	CMT-GLB	With KTV, MAA, EJT, and JRW did a test rotation of drum to verify trunion and stabilizer wheel position. Due to the wear on the north stabilizer wheel and the pinion noise, was advised to leave unit in the locked out position until replacement parts come into conduct repairs. With GXK, tested drum and placed unit back into auto for now in event it's needed for use. Cleaned up work area, and Vactor. Will let the grit dry for a few days and then collect measure its weight.
02/06/2023	CEA	MCC-MOM	OPR-GLB	MBT MBR CC completed, enabled aeration, purged P-7320 and resumed production.
02/06/2023	JRW	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/06/2023	EJT	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/06/2023	MAA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/06/2023	JRW	MCC-MOM	GEN-ADM	Completed time logs.

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
02/06/2023	GXK	MCC-MOM	OPR-WTO	Guided MAA regarding UVT analyzer zero calibration. We tested the HACH clean water standard compare to fresh lab RO water and the lab water has a higher UVT value. I asked MAA to replace the cuvette and recalibrate using lab RO water as zero standard. Inspected various trends. Increased the MBT production from 50 to 70% of the time. Calculated the required wasting given the high BIO2 MLSS. Schedule 20K Gal hauling from the MBT for the week. Removed UV3 out of service due to low intensity. UV3 need to be cleaned tomorrow. Investigated possible reasons for the low UVT.
02/07/2023	CEA	MCC-MOM	OPR-WTO	Plant process checks decreased UV pace multiplier from 1.0 to 0.70. Bluff and Legacy Parks pumping stations checks.
02/07/2023	KTV	MCC-MOM	OPR-WTO	UV dose and controls training with EJT, JRW, MAA and DFH. Reviewed steps to perform a UV clean in place. Supervised UV2 clean in place. Reviewed assigned work for the day.
02/07/2023	EJT	MCC-MOM	OPR-WTO	Discussion with Kyle about UV maintenance and cleaning on UV train 3, also reviewed compliance limits and trends on SCADA, and reviewed MBT wasting unusual trends.
02/07/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data. With KTV, MAA, and EJT, review log and trend data.
02/07/2023	MAA	MCC-MOM	OPR-TRN	With KTV, DFH and EJT. SCADA review and trend analysis. Reviewed UV clean procedure and HMI.
02/07/2023	KTV	MCC-MOM	CON-DSN	Finished electrical room 3000 and 6000 compressed network diagrams.
02/07/2023	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/07/2023	EJT	MCC-MOM	PMT-WTO	Completed preventive maintenance.
02/07/2023	MAA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/07/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
02/07/2023	DFH	MCC-MOM	CMT-MET	Began removal of upper portion of pump to inspect and replace upper bearing. Removed bearing and all associated pieces. Cleaned area of all old and new grease.
02/07/2023	MAA	MCC-MOM	CMT-GLB	Continued reviewing drawings in search for JB-6510. Moved trailer to access and opened HH-P2000 and HH-12000 but unable to read conduit labels from up high, will need confined space entry to access. Continued reviewing drawings in search for JB-6510. Moved trailer to access and opened HH-P2000 and HH-12000 but unable to read conduit labels from up high, will need confined space entry to access.
02/07/2023	EJT	MCC-MOM	SAM-WTO	Collection OF Daily EFF sample, weekly EFF A, process sample, monthly EFF sample. Calibration of the pH/EC prob and conducted test recorded on daily EFF COC.
02/07/2023	MAA	MCC-MOM	SAM-WTO	Collected Quarterly EFF samples.
02/07/2023	DFH	MCC-MOM	CMT-MET	Packed new bearing with Mobil Polyrex EM grease and began reinstallation of bearing and all pieces. Filled bearing housing with new grease.
02/07/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/07/2023	MAA	MCC-MOM	CMT-GLB	Reviewed Panels for possible conflicted during wiring of BFV. Reviewed with KTV.

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
02/07/2023	KTV	MCC-MOM	CMT-ELT	With MAA, reviewed drawings to locate wiring for level switch replacement. Assisted with inspection of multiple pull boxes near the ponds, but unable to locate the wires. Reviewed wiring and lighting panel equipment for preparing for shut down with MAA. Plan to complete tomorrow morning.
02/07/2023	EJT	MCC-MOM	SAM-WTO	Collection of MLSS sample, MBT sample and running ML analysis. Conducting final effluent quality check NH3, NO3, NO2, Alk.
02/07/2023	MAA	MCC-MOM	CMT-GLB	With KTV and DFH walked through PLC2, H-P2000, HH-I2000, and HH-7000 in search for JB-6510 but no luck. Inspected LB's and LSH-6510 and 6520 for splicing. It appears splices from PLC are made at LB's for each LSH but further investigation is required. With KTV and DFH walked through PLC2, H-P2000, HH-I2000, and HH-7000 in search for JB-6510 but no luck. Inspected LB's and LSH-6510 and 6520 for splicing. It appears splices from PLC are made at LB's for each LSH but further investigation is required.
02/07/2023	DFH	MCC-MOM	CMT-MET	Tested pump with KTV. Previous noise is no longer present and pump seems to be running fine. Cleaned up work area and attempted to clean old bearings for KTV to inspect.
02/07/2023	KTV	MCC-MOM	CMT-ELT	Did further investigation into conduit schedules and found record of the wiring installation including conduit size, number and size of conductors. Still need to physically verify in the pull box but overall details from the records match the physical characteristics of the conduit at PLC2 and in the ponds.
02/07/2023	MAA	MCC-MOM	GMT-AUT	Checked in with Malibu Auto Care in regards to EDM's F250. Technicians have yet to pinpoint toot cause for AC failure, they will contact me with estimate when available.
02/07/2023	DFH	MCC-MOM	CMT-GLB	With MAA and KTV, reviewed drawings for conduit layout and hand hold location for future wiring and LT installation.
02/07/2023	KTV	MCC-MOM	CON-DSN	Created a complete network view with the new electrical room network maps. Updated and verified the correct wiring for the fiber ring.
02/08/2023	KTV	MCC-MOM	OPR-WTO	Zone 3 and Zone 6 alarm - remote check showed all PLCs aren't communicating with SCADA. Arrived onsite and evaluated system status. Overall system is okay - EQ level is low and all systems are functioning as expected. Did some network troubleshooting and was able to get PLCs 3, 4, 5 and 6 online by running an ethernet cable temporarily from PLC6 to the server rack. Turned OFF P-1250 locally since post anoxic level was getting high. Will have to run P-1250 manually until the network issue is fixed. Clearwell level is increasing, so plan to put injection well 2 in local manual when more people arrive. For now, if clearwell level gets high I will allow it to go to the ponds.
02/08/2023	KTV	MCC-MOM	OPR-WTO	Continued network troubleshooting using the new network map. Planned troubleshooting and operations tasks for when OITs arrive. On arrival, asked DFH and EJT to go to IW2 and supervised them putting IW2 in HAND to maintain 100 gpm injection flow rate. Set up MAA and JRW and PLC2 and PLC3 respectively with a list of devices to ping. PLC3 is working as expected, but PLC2 was unable to be pinged locally. Reset switch at PLC2 and communications were restored to SCADA. Reviewed operational concerns with all OITs while communications are down. Got DFH and EJT started on making above ground ethernet cables for bypassing the fiber ring if necessary since the issue seems related to the fiber line.
02/08/2023	EJT	MCC-MOM	OPR-WTO	With Daniel open PCV at injection well 2, making Ethernet cable from PLC6 to headworks PLC2 and PLC4 to PLC2

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Date	Name	Job	Task	Notes
02/08/2023	JRW	MCC-MOM	OPR-WTO	With KTV, worked on pinging several equipment locations on-site to troubleshoot communication issue.
02/08/2023	DFH	MCC-MOM	OPR-WTO	With EJT, responding to comm loss at IW2. Working with KTV remotely, placed IW2 control HOA into hand to see if manual injection would occur and it did not. Placed Control HOA into OFF, opened PSV, and opened FCV. Watched IW operation currently running at ~107gpm.
02/08/2023	MAA	MCC-MOM	ITS-NET	Assist KTV in PLC2 comm loss troubleshooting. Set up PC at PLC2 and attempted to ping devices; unsuccessful. With KTV, rebooted Fiber/Ethernet converter switch at PLC2 which appeared to solve comms.
02/08/2023	DFH	MCC-MOM	CMT-GLB	With EJT, run and terminate Ethernet cable from PLC 6 to PLC 2.
02/08/2023	MAA	MCC-MOM	OPR-GLB	Checked HMI's at LPPS and BPPS to verify functionality; ok.
02/08/2023	JRW	MCC-MOM	OPR-WTO	With EJT. Plant walk-through with yellow lining, able to locate nearly all equipment listed on diagram.
02/08/2023	KTV	MCC-MOM	OPR-WTO	On further review of the network map, noticed that there's a switch at the server for converting the fiber ring to connect to the main server rack. This switch is unnecessary since the switch in PLC6 can do the same thing. Removed the switch at the server and rewired the RTU converter directly to the server rack. All communications are now restored, so the root cause was a problem with that switch. Reviewed with MAA and got him started on cleaning up, labeling and rewiring the server rack without this switch.
02/08/2023	MAA	MCC-MOM	ITS-NET	Reviewed MCC networking diagram with KTV for PLC6. Discussed eliminating Ethernet/Fiber switch and re-routing of ethernet cables to do so. Began re-routing ethernet cables. Assisted DFH in running ethernet cable through conduit from PLC6 panel to Server rack.
02/08/2023	DFH	MCC-MOM	CMT-GLB	Picked up ethernet cable from IPC storage. Ran patch cable from PLC 6 to switch and terminated connections. Verified ignition connection, okay. With EJT, run and terminate ethernet cable from PLC 4 to PLC 2.
02/08/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
02/08/2023	EJT	MCC-MOM	OPR-WTO	On site training, on plant walk and locations of equipment and transmitters at INF pump station and EQ pump station.
02/08/2023	KTV	MCC-MOM	OPR-WTO	Reviewed MAA network rewiring - okay. Got all systems running in AUTO again now that the network is reliable.
02/08/2023	EJT	MCC-MOM	SAM-WTO	Collection of daily EFF sample, weekly EFF B and weekly Calibration of pH/EC prob and ran testing on final effluent recorded pH and Temp on COC.
02/08/2023	MAA	MCC-MOM	ITS-NET	Completed re-routing ethernet cables, removed ethernet/fiber switch and unused ethernet and fiber cables. Organized and bundled cabling behind server rack. Verified LPPS, BPPS, IW2, IW1 and SCADA online.
02/08/2023	DFH	MCC-MOM	SAM-WTO	Collected annual EFF samples.
02/08/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks. Increased UV flow multiplier from 0.07 to 0.10, clear well Cl2 residual 0.70 mg/L. Observed MBR1 CC completed. Chlorine delivery order is scheduled for 02/10.
02/08/2023	KTV	MCC-MOM	OPR-WTO	Updated network map for PLC6 to remove the fiber ring converter switch, and reflect the changes made by MAA. Discussed overall network optimization plans with DXP.
02/08/2023	MAA	MCC-MOM	GMT-HSK	Housekeeping of PLC6/server room.
02/08/2023	EJT	MCC-MOM	GMT-JAN	Restroom, table tops and trash, organization of COC's

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Date	Name	Job	Task	Notes
02/08/2023	CEA	MCC-MOM	PMT-GLB	Hauled 15,000 gallons from Solids Storage Tank.
02/08/2023	MAA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/08/2023	KTV	MCC-MOM	CON-DSN	Updated network map further with specific details on devices at electrical room 6000 and the lab. Started unifying color scheme to indicate current compared with future wiring.
02/08/2023	MAA	MCC-MOM	OPR-WTO	Reviewed logs, SCADA and UV cleaning procedure.
02/08/2023	EJT	MCC-MOM	OPR-WTO	At headworks Continuing plant walk training. Identification of CV flow pattern and meters.
02/08/2023	DFH	MCC-MOM	CMT-GLB	Lower entrance automatic gate stuck in the open position. Attempted to remotely close gate but system would not take. Removed East access panel and found trouble to be a timer issue. Attempted to close the gates with the Close button but board would still not allow the gate to close. Cycled power to control board and closed gate. Tested gate operation remotely, okay.
02/08/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/08/2023	MAA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/08/2023	EJT	MCC-MOM	OPR-WTO	Training with Mario on UV cleaning.
02/08/2023	DFH	MCC-MOM	OPR-WTO	Picked up water and supplies for lab.
02/08/2023	CEA	MCC-MOM	CMT-INT	Troubleshooting Eff low UVT, Check AIT- 5100 calibrations, cleaned and replaced the cuvette. Discussed with GXK possible causes of low UVT.
02/08/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Troubleshoot the HF UVT analyzer. Repeated several zero calibration. The analyzer reading UVT of 91%T max for lab RO water. That should be 100%T. I suspect the LED lamp is reaching the end of it's life. I will look for a replacement.
02/09/2023	CEA	MCC-MOM	OPR-WTO	Plant process checks, and review process data trends. Bluff and Legacy park pumping stations, and IW2 checks.
02/09/2023	KTV	MCC-MOM	OPR-WTO	SCADA and trend review okay. Trained JRW and EJT on trend review.
02/09/2023	JRW	MCC-MOM	OPR-TRN	Training with KTV over MCC. Ran remote process check & analyzed Ignition. After this consulted on findings with KTV, specifically regarding recent turbidity spikes, UVT, and wasting flows. Specifically with the low UVT & yesterday's 3000 gal wasting. Then KTV analyzed & explained set 1 trends.
02/09/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data. Plant walk, inspected chemical storage, odor control, UV system, upper blower rooms, MBT, headworks, and electrical rooms. Noted all breakers that are currently locked out.
02/09/2023	EJT	MCC-MOM	OPR-WTO	With Kyle Reviewed SCADA trends on plant pumping cycles, EQT low and high set points, smoothing, and MBT wasting, and higher and lower zones distribution cycles.
02/09/2023	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/09/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Trained DFH on AIT-9300 maintenance cleaning and correct level insertion and positioning.
02/09/2023	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/09/2023	JRW	MCC-MOM	OPR-WTO	With EJT. In-depth plant walkthrough while yellow lining/cross referencing P&ID to equipment.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
02/09/2023	EJT	MCC-MOM	OPR-WTO	Site review and plant walk INF pump station, head works and EQ pump station.
02/09/2023	DFH	MCC-MOM	CMT-INT	With GXK, remove and cleaned transmitter. With assistance from KTV, reviewed conduit runs and hand hold location to pull more wire through conduit for easier access to removing and servicing FIT. Accessed HH-P2000, tested air for potential hazards, okay. Found L7240 conduit and made space to pull ~12inches of wire through conduit. With GXK, remove and cleaned transmitter. With assistance from KTV, reviewed conduit runs and hand hold location to pull more wire through conduit for easier access to removing and servicing FIT. Accessed HH-P2000, tested air for potential hazards, okay. Found L7140 conduit and made space to pull ~12inches of wire through conduit.
02/09/2023	GXK	MCC-MOM	OPR-WTO	Continue training DFH on FIT7140 and FIT7240 maintenance cleaning. I wanted to pull more wire to make the flex conduit longer so we can remove the FITs out of the pipe without disconnecting the wires. We investigated and located the wiring in the underground vaults in front of the headworks electrical room. I couldn't find an additional flex conduit, so we abandoned the plan to fix it permanently. We did pull enough cable to allow the removal of the FITs.
02/09/2023	JRW	MCC-MOM	SAM-WTO	Obtained MCC's daily sample after pH & EC calibration.
02/09/2023	DFH	MCC-MOM	CMT-INT	Continued with GXK on extending conduit but unable to continue due to lack of parts. Closed up HH-P2000 and the Signal box. Restored power back to FIT's and verified operation, normal.
02/09/2023	EJT	MCC-MOM	OPR-WTO	Continued site inspection and plant walk Bio train1 and Bio train2.
02/09/2023	JRW	MCC-MOM	OPR-WTO	Continuation of in-depth yellow-lining plant walkthrough.
02/09/2023	DFH	MCC-MOM	CMT-INT	FIT-3204 - Remove and clean sensor. Reviewed trend and verified increase in air flow. FIT-3104 - Remove and clean sensor. Reviewed trend and verified increase in air flow.
02/09/2023	JRW	MCC-MOM	GMT-HSK	Worked on housekeeping for zone 4000.
02/09/2023	GXK	MCC-MOM	PMT-GLB	Hauling of 2.7% thickened sludge solids. Hauled 5,000 gallons from Solids Storage Tank.
02/09/2023	GXK	MCC-MOM	OPR-WTO	Monitored DFH maintenance cleaning of FIT9440, FIT3104, and FIT 3204. We compared the blower's speed and air flow trends pre- and post FITs cleaning. We also talked about ORP sensors and their use in process control.
02/09/2023	EJT	MCC-MOM	GMT-HSK	House keeping at injection well 1,2,3.
02/09/2023	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/09/2023	EJT	MCC-MOM	OPR-WTO	Cleaning INF and EFF composite sample containers.
02/09/2023	EJT	MCC-MOM	GEN-ADM	Reviewing and submitting daily Time entry.
02/10/2023	CEA	MCC-MOM	OPR-WTO	Plant process and Eff quality checks observed UVT and UV performance, review data trends. Bluff and Legacy Parks pumping stations, and IW2 checks.
02/10/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check & logbook review: IPS flow average is normal, clearwell level is normal, MLT flow to BIO2 is at 360 which normal in accordance to our 4:1 ratio but comparative to yesterday, SCFM is normal due to increases made in aeration, in terms of compliance: turbidity is within compliance range, UV transmittance is at 66.2% which a healthy increase from yesterday.
02/10/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data. Plant walk, inspected chemical storage, odor control, UV system, upper blower rooms, MBT, headworks, and electrical rooms.

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2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
02/10/2023	MAA	MCC-MOM	OPR-WTO	Reviewed logs and SCADA.
02/10/2023	JRW	MCC-MOM	GMT-HSK	Worked on transferring equipment from Honda to truck.
02/10/2023	MAA	MCC-MOM	OPR-TRN	Safety training modules.
02/10/2023	DFH	MCC-MOM	OPR-WTO	Inventory management. Received UV spare parts and updated spreadsheet. I'll need to partner with GXK on UV Sleeves since none were received.
02/10/2023	EJT	MCC-MOM	OPR-WTO	Reviewed SCADA system, 12hr historical trending cycles appear normal and consistent, reviewed compliance overview, UVT 66.23 slight increase from yesterday 65.14, Scfm 216, NTU .010, reviewed log book sample sign sheet, process log.
02/10/2023	CEA	MCC-MOM	OPR-GLB	Received chemicals delivery Cl2 510 gals.
02/10/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/10/2023	MAA	MCC-MOM	GMT-AUT	Cleaned and organized work truck.
02/10/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Reduced chlorine multiple from 0.08 to 0.06 and pre-chlorine SP from 3.5 to 3 due to new chlorine batch and higher chlorine stock level. Decreased P3211 from 96% to 90% in an attempt to increase the Pre-anox ORP.
02/10/2023	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested permeate sample for pH and EC. Collected sample from BIO2 and conducted MLSS analysis.
02/10/2023	EJT	MCC-MOM	OPR-WTO	Plant walk, and Bottle inventory.
02/10/2023	EJT	MCC-MOM	OPR-WTO	Continuing plant walk/PID, emptied compactor trash, analyzing historical trending in relation to IPS, PDPS and EQT level expectations. Level of clear well and lower distribution zone flow. Plant walk inside main blower room 3000 and main electrical room 4000.
02/10/2023	MAA	MCC-MOM	OPR-TRN	Reviewed electrical drawings for WesTech rotary screen and researched PLC's for adequate PLC for it. I would select Do More BX-DM1-36AR.
02/10/2023	DFH	MCC-MOM	GMT-AUT	Took F-350 for smog check.
02/10/2023	DFH	MCC-MOM	GMT-AUT	Return F-350 from smog check.
02/10/2023	DFH	MCC-MOM	SAM-WTO	Completed MLSS analysis.
02/10/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Due to a drop in ORP I adjusted P3211 from 90 to 100% and monitored effects on ORP. Looked into solutions for flushing the MBT SST diffusers.
02/11/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks- normal. Bluff and Legacy park pumping stations checks.
02/11/2023	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrate the probes. Collect daily samples Iced and storage.
02/12/2023	CEA	MCC-MOM	OPR-WTO	Plant process checks observed UV performance, UVT2 inlet valve failed to close alarm condition, confirmed UVT2 zero flow, manually exercise valve in an attempt to clear alarm with no success. Bluff and Legacy park pumping stations, and IW2 checks.
02/12/2023	EDM	MCC-MOM	SAM-WTO	Calibrated pH / EC, Took daily EFF samples and prepared sample paperwork for lab pick-up. Took daily pH and EC reads and added results to sample COC & log. PH @ 7.46

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
02/13/2023	CEA	MCC-MOM	OPR-WTO	With GXK, discussing the Bio2 aeration process and the latest MLSS high lab analysis results; opened aeration tanks for inspection revealed solids scum layer on AB3, DEO, and PA1. Set up davit craned to raise mixers in DEO and PA1 to break scum layer material.
02/13/2023	GXK	MCC-MOM	OPR-WTO	Continue working with CEA and EJT on the mixing of the scum solids in the BIO 2 post-aeration chambers. I collected a representative ML sample and run the TSS analysis in the lab myself. Trained EJT on MBT CIP. We continue to inject the 1% citric acid solution from the backwash tank to the membrane.
02/13/2023	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested sample for NH3, NO2, NO3 Alk, Cl2, pH, and EC.
02/13/2023	EJT	MCC-MOM	OPR-WTO	With Carlos Bio train2 rasing level of detox mixer's and Post anox1 mixer, for 20min each in attempt to break down and mix the scum accumulation then returned mixer's back to normal level.
02/13/2023	CEA	MCC-MOM	OPR-WTO	Slurry BIO2 DEO and PA1 tanks product, set up mixers to normal position and secured the tanks.
02/13/2023	DFH	MCC-MOM	OPR-WTO	Inventory management.
02/13/2023	EJT	MCC-MOM	OPR-WTO	MBT cleaning with Carlos drained Backwash tank and rinsed added 5 gallons of citric acid and filled with 200 gallons water.
02/13/2023	CEA	MCC-MOM	CMT-GLB	Prepare MBT MBR for chemical cleaning, prepare a chemical solution batch (acid 5 gals.). Provided training to EJT on CC.
02/13/2023	EJT	MCC-MOM	OPR-WTO	Continued MBT clean with Golan,
02/13/2023	GXK	MCC-MOM	OPR-WTO	Completed the MBT CIP and trained EJT on MBT pumps priming and restarting of the process. Looked into parts for using the water plant hose to flush the MBT SST aeration diffusers.
02/13/2023	EJT	MCC-MOM	OPR-WTO	Closed MBT permanent pump valve's, to prevent backflow of citric acid into the permanent pump's, throttled backwash tank valve to start the cleaning. After cleaning primed pumps and place The MBT in operation conditions.
02/13/2023	DFH	MCC-MOM	OPR-WTO	Continued inventory management.
02/13/2023	GXK	MCC-MOM	OPR-WTO	Completed the TSS analysis. Cleaned up and updated logs and time entries.
02/13/2023	CEA	MCC-MOM	OPR-WTO	Plant check, and review process data trends. Bluff and Legacy parks pumping stations, and IW2 checks.
02/13/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, reviewed SCADA system. ORP -177 mV, Reviewed historical trending in real time 24hr, all cycles are within range, also analysis historical trending with Daniel. Also UV train 2 inlet valve is in fault, will consult with CEA on correction procedure.
02/13/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data. Plant walk, inspected chemical storage, odor control, UV system, upper blower rooms, MBT, headworks, and electrical rooms.
02/13/2023	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/13/2023	EJT	MCC-MOM	OPR-WTO	Plant walk, empty rotary drum trash and course screen trash. With Daniel calibration of pH probe in Bio train2 aeration tank 1. reviewing SCADA level trends.

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2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
02/13/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. With CEA, opened the covers above BIO2 AB1, AB3, DEOx, PoA1, and PoA2 to inspect the solids accumulation in the scum layer. Asked CEA to raise the mixers temporarily in order to resuspend the scum. I will look into using the PoA2 scum trough again but I'll need to raise the PoA2 operational level.
02/13/2023	DFH	MCC-MOM	CMT-INT	With EJT, Remove and replaced salt bridge on probe. Completed 2 point calibration with 4 and 7 pH standards, okay. Placed probe back into process and is now reading ~7.3 pH.
02/14/2023	CEA	MCC-MOM	OPR-WTO	Plant process checks made plant routine rounds. Bluff and Legacy Park pumping stations checks.
02/14/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check overall system seems in normal condition a few things to note: IPS flow average is 63, on the low end but still within normal ranges. Turbidity has seen a spike to 0.21 yesterday (one part missing) which is likely due to the citric acid cleaning done yesterday, 6k influent flow at 6 AM seems a bit higher than normal, ORP in BIO2 is only -100 mV which seems a bit low, although according to logs EJT has spoken to KTV about this already.
02/14/2023	JAA	MCC-MOM	OPR-WTO	Check SCADA operations plant; ok review trends, looks ok.
02/14/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data. Yesterday ~1445 turbidity spiked to 0.26NTU and UVT dropped to 64. Will need to consult with GXK about the trend. Plant walk, inspected chemical storage, odor control, UV system, upper blower rooms, MBT, headworks, electrical rooms, and verified compositing sampler is running.
02/14/2023	JRW	MCC-MOM	OPR-WTO	Yellow-lining in-depth plant walkthrough revisited started from IPS while opening all tanks & comparing to SCADA controls/information.
02/14/2023	JAA	MCC-MOM	GMT-HSK	Perform housekeeping of the chemical room.
02/14/2023	DFH	MCC-MOM	OPR-WTO	Inventory management.
02/14/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs.
02/14/2023	JRW	MCC-MOM	OPR-WTO	Continuation of yellow-lining in-depth walkthrough.
02/14/2023	JRW	MCC-MOM	OPR-WTO	Continuation of yellow-lining in-depth walkthrough.
02/14/2023	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample, Weekly EFF A, Weekly process, and tested permeate sample for pH and EC. Collected TSS sample from BIO2-AB3 and MBT and ran TSS analysis.
02/14/2023	JRW	MCC-MOM	OPR-TRN	With DFH, DFH reviewed weekly EFF A, and weekly process sampling. Then reviewed how to run ML analysis.
02/14/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
02/14/2023	JRW	MCC-MOM	OPR-WTO	Continuation of training on ML analysis with DFH. Organized & put away previous COC's while referencing sampling sign sheet.

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2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
02/14/2023	DFH	MCC-MOM	OPR-WTO	Reviewed completed TSS analysis with GXK, current TSS received was 8,600mg/L which is lower than expected. Revised and updated inventory spreadsheet.
02/14/2023	GXK	MCC-MOM	OPR-WTO	Designed and purchased 1" Chicago coupling and garden hose adaptor for the MBT SST aeration diffusers flushing connection to plant water. 2-1/2" coupling for the base of the aeration basing online analyzers service stand. I also looked at specs for BIOs in-tank online analyzers probes bracket support.
02/14/2023	KTV	MCC-MOM	CON-DSN	Updated network map for electrical room 6000 to include specifics for the LAB PLC and connection to the HP tanks. Finalized color schemes and started compressing the drawing.
02/14/2023	GXK	MCC-MOM	ENG-DSN	Used the Bernoulli equations and spreadsheet to calculate the required post anox 2 connection size.
02/15/2023	EJT	MCC-MOM	OPR-WTO	Reviewing log book, and SCADA trends with Kyle regarding a spike in NTU over the past 2 days. Reviewed sample sign sheet, process log. plant walk, head works, UV station, Bio train1/train 2, electrical room 3000.
02/15/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reduced P8140 multiplier from 0.07 to 0.05 due to high residual chlorine. Reduced Pre-chlorination SP from 4 to 3.6 mg/L due to improved EFF UVT. Reduced P3211 speed from 100 to 90% due to improved ORP of -70 mV. Lowered PAB normal pressure SP from 6.8 to 6.6 psi. Reviewed recent logs. Review recent DigAlerts emails.
02/15/2023	EJT	MCC-MOM	OPR-WTO	Plant walk with Kyle. Continuing PID/ yellow lining, MBR, Backwash tank, UV disinfection,
02/15/2023	KTV	MCC-MOM	OPR-WTO	SCADA and trend review okay. Plant walkthrough and flow path training with EJT.
02/15/2023	GXK	MCC-MOM	OPR-WTO	Created COC and bottles kit for EJT to sample weekly INF. Looked into 6" and 8" valves for the connection between BIO1 and BIO2 post Anox 2 tanks.
02/15/2023	EJT	MCC-MOM	SAM-WTO	Collection of weekly INF, weekly EFF B, and dialy EFF sample. Calibration of pH EC prob and ran testing, cleaning INF and EFF composite sample containers.
02/15/2023	JAA	MCC-MOM	GMT-AUT	Perform maintenance to the service truck.
02/15/2023	DFH	MCC-MOM	OPR-WTO	Calibrated portable Hach turbidity meter 2100Q. Verified calibration, normal. Inventory management, locating equipment for GXK.
02/15/2023	KTV	MCC-MOM	CON-DSN	Finished compressed server network map.
02/15/2023	EJT	MCC-MOM	OPR-WTO	Reviewing SCADA trends, process, levels.
02/15/2023	EJT	MCC-MOM	GMT-JAN	Empty trash,
02/15/2023	JAA	MCC-MOM	OPR-TRN	Completed, Job Hazard Analysis, Stop Work Authority and Injury and Illness Prevention Programs (IIPP) training.
02/15/2023	EJT	MCC-MOM	GMT-HSK	Empty trash from fine screen rotary drum and course screen trash,
02/15/2023	MAA	MCC-MOM	GEN-ADM	Time review.
02/15/2023	EJT	MCC-MOM	OPR-TRN	Safety training online courses
02/15/2023	KTV	MCC-MOM	CON-DSN	Finished compressed PLC6 and PLC6 network maps.
02/15/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Increased P3211 back from 90 to 96% due to a drastic fall in ORP.
02/15/2023	KTV	MCC-MOM	CON-DSN	Added future devices to network map for Electrical/MCC 6000.

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2023 Q1 MCC ONM Report

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Date	Name	Job	Task	Notes
02/16/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, historical trending, over all plant performance, compliance overview, SCADA system check, plant walk.uv station, low/upper distribution pump's, EQT, PDPS, IPS, electrical room 2000, headworks,Bio train1/2, MBR, backwash tank, electrical room 3000/4000, chemical storage room, MBT, electrical room 7000, odor control beds, Overall plant function okay. Reviewing SCADA system EQT trends.
02/16/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data. Plant walk, inspected chemical storage, odor control, UV system, upper blower rooms, MBT, headworks, and electrical rooms. Noticed hydropneumatic T-6100 valve leaking. Notified KTV, will need to search for replacement gasket and blind flange since there is no isolation valve from P-61XX to this tank.
02/16/2023	JRW	MCC-MOM	OPR-WTO	Reviewed process logs, then began SCADA systems check: IPS flow average is normal, clearwell level is normal, and no current systems irregularities to report. UVT has improved over the past few days, likely due to UV Train 3 cleaning done. Ran ML analysis.
02/16/2023	KTV	MCC-MOM	OPR-WTO	EQ controls training with EJT and JRW. SCADA and trend check okay. DFH reported a leak at T-6100. The leak appears to be coming from the gasket before the isolation valve, so shutting down the upper zone pumps will be required to fix the leak. DFH located a spare gasket in inventory, so discussed installation with DFH and GXK.
02/16/2023	DFH	MCC-MOM	CMT-GLB	Locate replacement gaskets and possible blind flange to complete repair for leaking valve. With EJT, prepared for BFV flange removal and gasket replacement.
02/16/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Adjusted chlorine residual, MLR speed. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Worked with DFH and EJT on the HP upper leak repairs.
02/16/2023	EJT	MCC-MOM	CMT-GLB	Preparation for replacement of gasket seal.
02/16/2023	JRW	MCC-MOM	OPR-WTO	Training with KTV over ML result analysis.
02/16/2023	KTV	MCC-MOM	OPR-WTO	Shutdown upper zone reuse pumps and hung LOTO. GXK assisted EJT and DFH with removing pressure from T-6100. Reviewed Electrical/MCC 3000 and identified the unknown ethernet cables as future spares. Created draft of PLC4 network map.
02/16/2023	DFH	MCC-MOM	CMT-GLB	With GXK, KTV, and EJT. Hung LOTO on P-6XXX and began work on draining and depressurizing T-6100 and upper reuse lines. Removed damaged gasket and on valve and replaced with new. Removed LOTO and monitored system with GXK and KTV as upper reuse lines pressurize.
02/16/2023	EJT	MCC-MOM	CMT-GLB	Replacement of gasket seal complete.
02/16/2023	GXK	MCC-MOM	OPR-WTO	Isolated the upper zone HP tank, and stopped the RW pumps. Drained the HP tank in preparation. Assisted with the disconnection and gasket replacement.
02/16/2023	JRW	MCC-MOM	SAM-WTO	Calibrated pH & EC probe, then obtained daily sample.
02/16/2023	JAA	MCC-MOM	OPR-TRN	Continue taking safety skills training.
02/16/2023	JRW	MCC-MOM	OPR-WTO	Ran NH3 & NO3 tests on DR6000 for MAA at TCM. Then training with KTV, reviewed the RW upper zone alarm, ML analysis in accordance to MPP's situation. Then meeting with KTV about PMT tasks/resources.

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Date	Name	Job	Task	Notes
02/16/2023	KTV	MCC-MOM	OPR-WTO	Assisted DFH, EJT and GXK with LOTO removal and restart of upper zone pumps. Finished network map draft of Electrical/MCC 2000.
02/16/2023	JAA	MCC-MOM	OPR-GLB	By KTV request drive to biosolutions to pick up replacement parts needed.
02/16/2023	GXK	MCC-MOM	OPR-WTO	Completed the HP leak repairs. opened the isolation valves and restarted the RW pump in hand slowly raising the pressure in the pipe while bleeding air out. Once I reached the 120 psi SP I changed the pumps to Auto and monitored the behavior until reaching stable operation.
02/16/2023	DFH	MCC-MOM	CMT-GLB	With EJT, monitored upper reuse line as pressure returns back to 120psi. Inspected ARV-UFM-7 with EJT and verified proper operation as pressure is restored. Cleaned up work area around T-6100.
02/16/2023	JRW	MCC-MOM	OPR-WTO	Completed NO3 & NH3 measurements for MAA. In-depth yellow lining walkthrough, went over clearwells/RW discharge flow path, then went over blower room electricals, MBT, MBT blowers & also piping for percolation ponds. Found MgOH dosing point into piping that goes into EQ.
02/16/2023	KTV	MCC-MOM	OPR-WTO	Researched network devices and managed ethernet switches. Downloaded manuals for devices.
02/16/2023	DFH	MCC-MOM	OPR-WTO	Noticed leak coming from ARV-61XX. Notified KTV and advised close valve to ARV.
02/17/2023	KTV	MCC-MOM	PRG-PLC	Noticed occasional nuisance alarm emails for Bio 2 low air flow since most recent air change by GXK. Lowered low setpoint from 150 to 120 scfm. Re-evaluated timed bypass logic to fix the problem with bit 31. Bit 31 is the signed bit, so it causes an issue when the bit is enabled since the comparison to check if a bit has been disabled returns true. Created a spreadsheet for testing the math and confirmed that forcing bit 31 to return false when enabled fixes the bug.
02/17/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA system, historical trending, compliance overview, process, plant walk. HP system, chemical room, backwash tank, MBR 1/2, Electrical Rooms 3000/4000, Bio train1/2, UV station, EQT, headworks, electrical room 2000, MBT, electrical room 7000, INF and EFF compositors, order control bed's, electrical room 6000, continuing yellow lining.
02/17/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data. Plant walk, inspected chemical storage, odor control, UV system, upper blower rooms, MBT, headworks, and electrical rooms. Removed trash from course screen and fine screen.
02/17/2023	EJT	MCC-MOM	OPR-WTO	Continuing yellow lining, percolation ponds
02/17/2023	KTV	MCC-MOM	PRG-PLC	Applied bug fix for PLC3 List 1 and tested - works as expected. Applied bug fix to the rest of PLC3 and PLC2. Anti-stick logic workaround in PLC2 looks like it is still useful as a watchdog, so added anti-stick logic to all the alarm lists for PLC3.
02/17/2023	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/17/2023	EJT	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/17/2023	EJT	MCC-MOM	OPR-WTO	yellow lining MBT, chemical room.
02/17/2023	MAA	MCC-MOM	OPR-GLB	Assisted JAA in testing air compressor on service truck. Air hose has visible leakage due to wear and tear at discharge and will need to be replaced.
02/17/2023	DFH	MCC-MOM	GMT-AUT	Relocate Vactor, Service truck, and trailer.
02/17/2023	DFH	MCC-MOM	OPR-WTO	Drained T-6200.

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2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
02/17/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
02/17/2023	KTV	MCC-MOM	PRG-PLC	Applied bug fix and anti-stick logic to all alarm lists for PLC6. Reviewed network issues with GXK. Investigated effluent sampler speed display on SCADA which is continuously showing 7-8%. This is from the original logic which we rewrote. Originally, the sampler was supposed to run at a variable speed which is proportional to UV flow, but we changed it early on to a pulse which is proportional to totalized flow. The math for the original logic still displays as the speed of the pump on SCADA, despite being non-functional.
02/17/2023	EJT	MCC-MOM	SAM-WTO	Collection of daily EFF sample, calibration of pH/EC prob and conducting test. Recorded results and added pH to COC.
02/17/2023	GXK	MCC-MOM	OPR-WTO	Working and training with EJT on the MBT. Earlier in the day I found the MBT SST blowers were in trip status. That led to the failure of the permeate pump#1 and low uneven filtrate flow. I used the opportunity to assemble the new parts for flushing the SST aeration legs. After testing the blower and inspecting it, we found all but two of the legs to be mostly blocked. We used a pressurized hose with an adaptor to unclog them. We tested a second time and made another attempt in unclogging one of the legs that is partially clogged. We resumed the MBT production at low flows in order to recover the MBR sludge concentration. Following priming, both pumps worked fine.
02/17/2023	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/17/2023	KTV	MCC-MOM	PRG-SDA	Removed the tag connection for the effluent composite sampler so it will always show 0% speed until I can revise the program in detail.
02/17/2023	EJT	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/17/2023	EJT	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/17/2023	KTV	MCC-MOM	CON-DSN	Created basic network map of RTUs, and created a managed network overview. Compressed PLC3 network map.
02/17/2023	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/17/2023	GXK	MCC-MOM	OPR-WTO	Assisted DFH with the UV1 reassembling following the annual UV lamps and o-rings replacement. The wiper motor shaft adaptor set screw got stripped preventing the motor from being pulled out. I instructed DFH to put it back but rotate the orientation of the screws. The wiper is not in operation anyway. Restarted the UV and inspected for leaks. All looks good so we placed it back into service and I reset the lamps runtimes.
02/17/2023	KTV	MCC-MOM	OPR-WTO	Supervised DFH restoring UV1 to normal service following lamp replacement. Compressed PLC4, PLC2 and PLC7 network maps.
02/18/2023	KTV	MCC-MOM	OPR-WTO	Remote SCADA and trend review okay.
02/18/2023	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrating the probe. Collect daily samples Iced and storage.
02/19/2023	KTV	MCC-MOM	OPR-WTO	SCADA and trend review okay. MLSS remains a little high, so made no change to wasting.
02/19/2023	EDM	MCC-MOM	SAM-WTO	Calibrated pH / EC, Took daily EFF samples and prepared sample paperwork for lab pick-up. Took daily pH / 7.60 and EC reads and added results to sample COC & log
02/20/2023	CEA	MCC-MOM	OPR-WTO	Plant process, conduct plant routine rounds. Monitoring UV performance, UVT below 65% reviewing process data trends. Bluff and Legacy park pumping stations, and IW2 checks. Observed BLuff park irrigation cycle completed.

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
02/20/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/20/2023	CEA	MCC-MOM	OPR-WTO	Inspection of Bioreactor 2 aeration process low DO < 1.0 mg/L, increased aeration to basin #3 by opening V-3103 two turns, monitoring B-3510 speed increased from 62% to 67%. Slurry Deox and PA#1.
02/20/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/20/2023	CEA	MCC-MOM	SAM-WTO	Plant effluent quality check - OK. Collect plant daily Effluent compliance samples for lab analysis, set up cooler for PCL pick up.
02/20/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/20/2023	CEA	MCC-MOM	SAM-WTO	Collect BIO2 AB3 MLSS to lab conduct analysis.
02/20/2023	CEA	MCC-MOM	OPR-WTO	Observed MBR1 CC completed, monitoring Eff UVT > 65.0 %.
02/20/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/20/2023	CEA	MCC-MOM	CMT-INT	Monitoring UVT process below 65%; troubleshoot the HF UVT analyzer, swap the cuvette, and perform zero calibration, check the reading at 65.8% vs lab Hach 66.5%. Observed membrane production rotation after CC caused briefly high turbidity, acknowledge the alarm, and observed turbidity dropped to normal range.
02/21/2023	CEA	MCC-MOM	OPR-WTO	Plant process and Eff quality checks. Bluff and Legacy parks pumping station, and IW2 checks.
02/21/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA system, process, historical trending, compliance overview. Plant walk, HP system, order control bed's, chemical room, MBR 1/2, backwash tank, electrical room 4000/3000, Bio train1, train2, upper and lower zone pumps, UV station, EQT, IPS, INF/EFF compositors, MBT, electrical room 2000, headworks, empty compactor/ course screen trash, electrical room 7000. Inventory sample bottle delivery.
02/21/2023	JAA	MCC-MOM	OPR-WTO	Read logbook, review SCADA. Visuals plant checks.
02/21/2023	MAA	MCC-MOM	OPR-WTO	SCADA checks. With KTV's supervision changed UV flow pacing multiplier from 0.08 to 0.06 due to high CL2 residual. Plant walk-through.
02/21/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/21/2023	KTV	MCC-MOM	CON-DSN	Updated PLC2/PLC7 network map with planned IP addresses and wiring changes.
02/21/2023	JAA	MCC-MOM	GMT-HSK	Clean up membrane blowers room and biological reactors area.
02/21/2023	MAA	MCC-MOM	GMT-HSK	Cleaned up MBT blower room and MBT area.
02/21/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Reduced P8130 Multiplier further from 0.06 to 0.04 due to high chlorine residual. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
02/21/2023	KTV	MCC-MOM	CON-DSN	Finished adding all future devices and wiring changes to network map.
02/21/2023	KTV	MCC-MOM	CON-DSN	Finalized network map and updated the managed overview plan. Sent email to DXP for verifying and coordinating changes.
02/21/2023	MAA	MCC-MOM	SAM-WTO	Collected Weekly EFF-A and Process-A samples. Iced and stored.
02/21/2023	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrating the probe. Collect daily samples Iced and storage.

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Date	Name	Job	Task	Notes
02/21/2023	MAA	MCC-MOM	OPR-GLB	With JAA; set up transfer pump to transfer from BIO1 to BIO2 if needed. With KTV and JAA, checked air balance at AER basins 1-3 on both BIO1 and BIO2. Increased blower pressure to simulate fluff and re-checked air balance. Discussed with air balance and DO with KTV, JAA and EJT.
02/21/2023	JAA	MCC-MOM	OPR-GLB	With MAA prepare set up of the transfer pump from BIO1 to BIO2 if is required for the rain coming next few days. With KTV and MAA check air of the ARE. Basins 1,2&3 on both BIO reactors. With KTV, MAA and EJT discuss DO and NO3 trends.
02/21/2023	EJT	MCC-MOM	OPR-WTO	Reviewed SCADA with Kyle, on what conditions affect ORP.
02/21/2023	KTV	MCC-MOM	OPR-WTO	Reviewed ORP, DO and NO3 trends with MAA, JAA and EJT. Rebalanced air to BIO2 which caused an increase in total air flow from ~200 to 220 SCFM. Decreased PAB pressure set point from 6.6 to 6.5 psig.
02/21/2023	EJT	MCC-MOM	OPR-WTO	Continuing inventory from received sample bottle, and putting them away.
02/21/2023	MAA	MCC-MOM	OPR-GLB	Organized and filed COCs.
02/21/2023	CEA	MCC-MOM	OPR-WTO	Observed Legacy park pumping station flow after IW2 backwashing. Plant Eff quality check noticed a brief drop in UVT below 65% after MBR chemical cleaning.
02/21/2023	JAA	MCC-MOM	OPR-TRN	Completed safety skills training.
02/21/2023	KTV	MCC-MOM	OPR-WTO	Phone meeting with RRV discussing upcoming rain. Remote check of aeration change earlier today showed that air flow stabilized around 180 SCFM at 6.5 psig, so increased to 6.6 psig with the goal of 200 SCFM.
02/22/2023	CEA	MCC-MOM	OPR-WTO	Plant process and Eff quality checks, Increased UV flow multiplier from 0.06 to 0.07 Cl2 residual below 1.00 mg/L. Plant routine rounds. Bluff and Legacy parks, and IW2 checks. With JAA, briefing on IPS maintenance tasks.
02/22/2023	JAA	MCC-MOM	OPR-WTO	Review SCADA operations and trends.
02/22/2023	KTV	MCC-MOM	OPR-WTO	Confirmed with DFH that time lapse camera is installed in MH-B6 in preparation for rain forecasted to start tomorrow. Increased EQ smoothing response by decreasing hours to smooth from 6 to 4 to keep EQ level low heading into the rain tomorrow. DO overall looks good since rebalancing yesterday.
02/22/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/22/2023	JAA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/22/2023	KTV	MCC-MOM	OPR-WTO	Tested various managed switch configurations and how the network responded. PLC7 IO fault resulted from PLC5 disconnecting during work. Cycled power to PLC7 IO cards and verified everything is working as expected.
02/22/2023	JAA	MCC-MOM	CMT-GLB	Assist CEA exercising flat gates we noticed G-11X0; G-1102 is broken remove debris and rags stuck. CEA swapped valves at legacy park and confirm G-1101 is on service now.
02/22/2023	CEA	MCC-MOM	PMT-INT	Completed equipment calibrations.
02/22/2023	CEA	MCC-MOM	CMT-GLB	Exercise flap gate valves G-11X0; G-1102 is broken, cleaned, and removed rags. Swapped valves at Legacy park and put G-1101 in service
02/22/2023	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrating the probe. Collect weekly EFF comp, samples, INF comp samples and daily samples Iced and storage.
02/22/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.

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Date	Name	Job	Task	Notes
02/22/2023	JAA	MCC-MOM	SAM-WTO	Collect fresh samples from MBT and BIO2 to perform MLSS test.
02/22/2023	JAA	MCC-MOM	OPR-TRN	Continue safety skills training.
02/22/2023	CEA	MCC-MOM	CMT-GLB	DFH reported Eff flow to the ponds; Reviewed process trends revealed comm loss to PLC6 affecting the clear well process. With KTV assistance troubleshooting PLC6, cycling the power to restored comm. Monitoring the clear well process, manually operate equipment until normal setpoints are reached.
02/22/2023	DFH	MCC-MOM	OPR-WTO	Noticed lower perc pond receiving flow. Informed CEA who was still on site. Cause determined to be comm loss which flatlined the clearwell at 12.34ft.
02/22/2023	KTV	MCC-MOM	OPR-WTO	Notified by CEA that PLC6 has an IO fault. This IO fault appears to have occurred around the time that PLC7 was fixed. Restored PLC6 ethernet switch to default and worked with CEA to cycle power to the PLC6 IO. Everything appeared functional on restart so asked CEA to monitor and verify proper operation of everything.
02/22/2023	MAA	MCC-MOM	OPR-WTO	Assisted CEA in troubleshooting PIT-6202.
02/22/2023	CEA	MCC-MOM	CMT-GLB	Troubleshooting PA-6202 low pressure < 20.0 psi; Try several different configurations in an attempt to increase pressure but no success. Leave P-6210 in the off position and put P-6220 in hand with speed set at 50%, monitoring IW2 flow normally. Inspect the lower zone pipeline and confirm no leaks.
02/22/2023	KTV	MCC-MOM	OPR-WTO	CEA noticed PA-6202 showing low pressure. Unable to correct tonight. CEA put P-6220 in HAND at 50% speed. This results in ~20 psi on the pressure gauge at the pump, and is showing ~26 psi at IW2. Verified in the logic that running the pump in HAND is safe overnight. Monitored injection cycle and verified proper operation. Increased P-6220 speed slowly to 80% (normal operating speed) while monitoring pressure at IW2.
02/23/2023	KTV	MCC-MOM	OPR-WTO	Unsuccessfully troubleshooted PA-6202 LCD menus.
02/23/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, HP tank showing alarm. Reviewed processes log, logbook data, and compliance points. After this training with KTV, KTV reviewed current situation in regards to lower pressure sensor's PLC6 I/O fault, must monitor lower pressure gauge to confirm no pressure build-up. Also completed safety trainings.
02/23/2023	EJT	MCC-MOM	OPR-WTO	Reviewing log book, sample sign sheet, process log and SCADA system. Historical trending, compliance overview, process, quality. Plant walk, HP system, order control bed's, chemical room, MBR 1/2, backwash tank, electrical room 4000/3000, Bio train1/2, UV station. reviewing SCADA system lower distribution pump's trends/PSI, reviewed with Kyle the relationship between the PSI transmitter and the PLC.
02/23/2023	JAA	MCC-MOM	OPR-WTO	SCADA review check and trends.
02/23/2023	CEA	MCC-MOM	OPR-WTO	Plant process checks. Bluff and Legacy parks, and IW2 checks. Search for PA-6202 replacement unit found no spare on hand.
02/23/2023	JAA	MCC-MOM	CON-ELT	By KTV request run a cat 6 internet cable from the electrical to the real tech devices.
02/23/2023	KTV	MCC-MOM	OPR-WTO	Swapped electronics between 6102 and 6202 and the root cause appears to be a problem with the 6202 element, so the transmitter will have to be replaced.
02/23/2023	JAA	MCC-MOM	OPR-TRN	Completed safety skills training.
02/23/2023	EJT	MCC-MOM	OPR-WTO	Continuing plant walk, head works empty compactor/course screen trash and spraying down the screen inside the rotary drum. EQT, MBT, EFF/INF compositors, electrical room 2000/7000.

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
02/23/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
02/23/2023	EJT	MCC-MOM	GMT-JAN	Cleaning bathroom and laboratory, emptied trash
02/23/2023	KTV	MCC-MOM	OPR-WTO	After discussion with RRV, decided to valve in T-6200 so that we can refer to PIT-6200. Verified piping pressurized normally and pressure at T-6200 equaled pressure at the pumps.
02/23/2023	JRW	MCC-MOM	SAM-WTO	Calibrated pH & EC probe, then obtained MCC's daily sample.
02/23/2023	JAA	MCC-MOM	GMT-HSK	Continue housekeeping by BIO reactors 1&2
02/23/2023	EJT	MCC-MOM	GEN-TRN	Online safety training.
02/23/2023	JRW	MCC-MOM	OPR-WTO	Plant walkthrough, then worked on housekeeping. After this also worked on finishing PO's & correcting time entries.
02/23/2023	KTV	MCC-MOM	PRG-PLC	Changed PA-6202 scaling raw value to PIT-6200, so now both indicators match on SCADA. Put P-62X0 back in AUTO and disabled the lag command that latched in due to low pressure. Pressure control after all of these changes looks good. Discussed status with GXK.
02/23/2023	EJT	MCC-MOM	GMT-JAN	Continuing janitorial.
02/23/2023	JAA	MCC-MOM	GMT-AUT	Clean truck and organize tools.
02/23/2023	EJT	MCC-MOM	GMT-AUT	Cleaning truck
02/23/2023	JRW	MCC-MOM	CMT-GLB	Installed new L brackets for hardware.
02/23/2023	JAA	MCC-MOM	OPR-WTO	Quick review of SCADA.
02/23/2023	GXK	MCC-MOM	OPR-WTO	Tasked JRW with installing L brackets for all the BIO2 online analyzers probes mount. I assisted him with the first prob, AIT3253 in AB3. I selected additional screws and SS brackets parts from McMaster. Researched the various types of anti-seize. Since we mainly use it on stainless steel and in corrosive environments we need the Nikle anti-seize.
02/23/2023	EJT	MCC-MOM	OPR-WTO	Reviewing daily time entry.
02/24/2023	KTV	MCC-MOM	OPR-WTO	Received repeated zone 2 alarms due to rain. Remote check showed EQ level at 5.5 feet. Rain happened to start at the EQ level peak so smoothing hasn't had time to correct. Decreased smoothing hours from 4 to 3 and increased A ratio to 1.3. Monitored remotely to make sure flow changes are effective and headed onsite.
02/24/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks, monitoring process and levels during heavy rain.
02/24/2023	KTV	MCC-MOM	OPR-WTO	EQ level reached 7 feet at the software maximum of 137.5 gpm system flow. Discussed with RRV. Shut down and bypassed ME-2220 and increased system flow to 3.5 Q/158 gpm while monitoring permeability. Permeability trend started decreasing so reduced system flow to 150 gpm which is so far the exact right spot for flat permeability and P-1250 to be able to maintain.
02/24/2023	JAA	MCC-MOM	OPR-WTO	Review logs and SCADA.
02/24/2023	MAA	MCC-MOM	OPR-WTO	Reviewed logs. Discussed EQ to old EQ transfer with KTV.
02/24/2023	MAA	MCC-MOM	OPR-WTO	With JAA; set up vactor and began transferring from Intermediate pumps station to old EQ tank.
02/24/2023	JAA	MCC-MOM	OPR-WTO	With MAA, prepare vactor to transfer from intermediate pumps station to the old EQ tank.
02/24/2023	CEA	MCC-MOM	OPR-GLB	With MAA and JAA, training on Vactor truck operations, transfer product from EQT to temporary storage tank.

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Date	Name	Job	Task	Notes
02/24/2023	KTV	MCC-MOM	OPR-WTO	Discussed operational plans for the day with GXK and MAA. Got MAA started with JAA on transferring from the EQ tank to the old EQ tank to make additional storage room. Plan to continue transferring until EQ reaches 3 feet. Turned off tipping trough valves preemptively.
02/24/2023	MAA	MCC-MOM	OPR-WTO	Continued transfer from Intermediate pump station to old EQ.
02/24/2023	JAA	MCC-MOM	OPR-WTO	With MAA continuing transferring from the intermediate pumps station to old EQ tank.
02/24/2023	JRW	MCC-MOM	OPR-WTO	KTV training & also reviewed logbooks actions, as well as decisions made in response to alarms/rain.
02/24/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/24/2023	KTV	MCC-MOM	GEN-ADM	Site network map meeting with DXP. Clarified which research needs to be done and what additional information I need to provide.
02/24/2023	JAA	MCC-MOM	OPR-WTO	By KTV instructions stop transfer from intermediate pumps to old EQ tank. Discuss with GXK transfer from the BIO1 to old EQ tank. After check levels with GXK said abort transfer since level at BIO1 is ok for storage if needed. Clean and wash tank of the vactor and refuel the tank.
02/24/2023	MAA	MCC-MOM	OPR-WTO	Per KTV; aborted transfer from Intermediate pump station to old EQ prepped to transfer from BIO1 to old EQ. Discussed with GXK, checked BIO1 levels with GXK who aborted transfer as BIO1 levels should be ok for storage if needed. Rinsed and washed off Vactor tank. Refueled vactor.
02/24/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. In preparation for the rain storm, I manually controlled the A ratio to maintain EQT at or below 4 ft. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
02/24/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA, plant walk, upper/lower distribution pump, UV station order control bed's, headworks empty compactor/course screen trash, sprayed down screen inside rotary drum, inspected INF/EFF compositors. MBT, electrical room 2000/7000, Bio train1/2, MBR, HP system, chemical room, electrical room 3000/4000.
02/24/2023	KTV	MCC-MOM	OPR-WTO	Returned system flow to normal as we approached 3 feet in the EQ tank. Handed operations to GXK for the rest of the day.
02/24/2023	MAA	MCC-MOM	GEN-ADM	Worked on equipment lists.
02/24/2023	JAA	MCC-MOM	OPR-WTO	Wash and clean rust from the case of the rotary drums screen 1&2.
02/24/2023	KTV	MCC-MOM	GEN-ADM	Created network communications flow table for all IO, HMIs and future VFDs. Need to add PLC to PLC communications before list is complete.
02/24/2023	CEA	MCC-MOM	OPR-WTO	With JAA headworks process inspection.
02/24/2023	JRW	MCC-MOM	OPR-WTO	Worked on reviewing process logs, logbook, plant walkthrough. Should note: there is a blank notification display on 4000's Main Electrical HMI.
02/24/2023	GXK	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/24/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs. Adjusted A ratio to rain intensity.

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Date	Name	Job	Task	Notes
02/24/2023	KTV	MCC-MOM	OPR-WTO	Responded to various alarms throughout the night due to rain. Monitored system throughout. GXK system settings handled flow well with no intervention.
02/25/2023	KTV	MCC-MOM	OPR-WTO	Repeated alarms throughout the night due to rain. Made no changes but continued to monitor.
02/25/2023	KTV	MCC-MOM	OPR-WTO	Reduced A Ratio since EQ level is low. Monitored during rain, but so far smoothing is effective on its own.
02/25/2023	KTV	MCC-MOM	OPR-WTO	Multiple equipment shut downs due to power surge including P-1250. Contacted JAA for help resetting all equipment when he is back onsite. Verified system running well with P-1220 and adjusted system flow setpoint down to prevent MBR shutdown due to low post anox level.
02/25/2023	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrating the probes. Collect daily samples Iced and storage.
02/25/2023	KTV	MCC-MOM	OPR-WTO	Remotely supervised JAA resetting all failed equipment. Everything back up and running. Set system flow back to normal. Rain appears to have stopped.
02/25/2023	JAA	MCC-MOM	OPR-WTO	By KTV request rest few VFD breakers. From electrical room 2000, reset P-1250. From electrical room 3000, reset B-3520 and blower room B-4610. From the electrical room 6000, reset EF-9410, P-6110 and P-6220. After reset all the VFDs confirmed with KTV everything is operating properly.
02/25/2023	GXK	MCC-MOM	OPR-WTO	Responded to alarm dialer call reporting active ch.1 alarm condition. Logged in remotely and found the cause for the alarm to be alarm 28 excessive PDPS level increase. Inspection of the trends revealed a probable short heavy rain period. The EQT level is still low at around 3.6 ft. and trending sideways so no immediate need to increase production. Inspected the weather forecast and light rain is expected in the next 4 hours. I inspected the alarm dialer pages, clearing the tail tells of previous alarms while verifying everything works as expected.
02/26/2023	EDM	MCC-MOM	SAM-WTO	Calibrated pH / EC, Took daily EFF samples and prepared sample paperwork for lab pick-up. Took daily pH and EC reads (7.6 @ 17) and added results to sample COC & log
02/27/2023	KTV	MCC-MOM	OPR-WTO	Repeated alarms due to rain. Remote check each time showed no changes necessary.
02/27/2023	KTV	MCC-MOM	OPR-WTO	Discussed low UVT with CEA. Increased prechlorination setpoint from 3.6 mg/L to 6 mg/L and it appears to be effective, although UVT remains low at ~65.2%. Trend review shows correlation between UVT decrease and rain flow. No other correlations seem related. There is some minor correlation between system flow and UVT as well, but that would also be true when the root cause is rain.
02/27/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
02/27/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA system, noticed UV trans at 63%, and system in offspec, confirmed with CEA regarding status. compliance overview, historical trending,
02/27/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, UVT is low; consulted with CEA. Outside of this paddle mixer is still bypassed hence showing no activity. Reviewed trends, sampling sign sheet, compliance, and logbook.
02/27/2023	CEA	MCC-MOM	OPR-WTO	Plant process and Eff quality checks. Reviewed logbook and 2023 data activity. Bluff and Legacy park pumping station and IW2 checks.
02/27/2023	MAA	MCC-MOM	OPR-TRN	Reviewed UVT performance with KTV.
02/27/2023	MAA	MCC-MOM	PRG-TRN	Do-More training with KTV and DFH.
02/27/2023	DFH	MCC-MOM	PRG-TRN	PLC Programming training with KTV and MAA.

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Date	Name	Job	Task	Notes
02/27/2023	KTV	MCC-MOM	PRG-PLC	Introductory PLC training with MAA and DFH. Discussed overall program structure, data types, and address management.
02/27/2023	JRW	MCC-MOM	OPR-WTO	Yellow-lining in-depth plant walkthrough. Noticed drum screen 1's inlet box caulking has deteriorated, signs of H2S leaking. Informed CEA.
02/27/2023	DFH	MCC-MOM	PRG-TRN	Continued PLC training with KTV and MAA.
02/27/2023	MAA	MCC-MOM	PRG-TRN	Continued PLC training.
02/27/2023	JRW	MCC-MOM	OPR-WTO	Ran ML analysis for BIO2, also began working on housekeeping.
02/27/2023	KTV	MCC-MOM	PRG-PLC	Trained MAA and DFH on IO configuration concepts and simulation. Assigned them to complete IO configuration programs to reinforce concepts from training.
02/27/2023	JRW	MCC-MOM	SAM-WTO	Calibrated pH & EC probe, then took daily sample. Also collected EFF sample for process checks. Ran process checks for MCC, including NH3, NO3, NO2, ALK, PRE-CL, and POST-CL.
02/27/2023	MAA	MCC-MOM	PRG-TRN	Continued PLC training.
02/27/2023	DFH	MCC-MOM	PRG-TRN	Continued PLC programming with MAA.
02/27/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Adjusted the pre-chlorination SP down from 6 to 4 mg/L. Increased A ratio from 1.05 to 1.25 in response to expected rain.
02/27/2023	JRW	MCC-MOM	GMT-HSK	Housekeeping, sweeped floors including OPS, break room, and electrical room. Also cleaned up lab area, disinfected surfaces. Took out trash, mopped restroom. Set up ant baits along break room & electrical (where ants seem to be entering from). Also sprayed Home Guard ant defense in a perimeter around MCC OPS.
02/27/2023	MAA	MCC-MOM	PRG-TRN	Continued PLC training.
02/27/2023	DFH	MCC-MOM	PRG-TRN	Continued PLC programming with MAA.
02/28/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks, monitoring UV system and UVT performance, and reviewing process data trends. Bluff and Legacy parks pumping station and IW2 checks.
02/28/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, reviewed trends, sampling sign sheet, processes log. compliance check. It seems our UV trains 1 & 3 are having issues, UVT is low around 64-64.8%; informed CEA. Along with this after reviewing the processes log, it seems our MBT ML concentration has gone up. Recording around 35,000 mg/l on Feb 22nd. Will consult with CEA & KTV. It seems a haul is needed. Plant-walkthrough. Responding to MOV-4700 Not Ready Alarm & BIO2 POST-AB2 LL Dry Alarm with CEA. After this inspected MBT with CEA, CEA notes a haul is likely needed.
02/28/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data.
02/28/2023	DFH	MCC-MOM	PRG-TRN	PLC training.
02/28/2023	MAA	MCC-MOM	PRG-TRN	DoMore training with DFH.
02/28/2023	JRW	MCC-MOM	CMT-PLB	Assisted CEA in flushing WAS line.
02/28/2023	CEA	MCC-MOM	CMT-GLB	Exercising WAS to digester valve MOV-4700, cleared stoppage in the line and confirm flow > 150 gpm. Flushed RAS lines with high-pressure plant water.
02/28/2023	DFH	MCC-MOM	PRG-TRN	Continued PLC training.

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02/28/2023	MAA	MCC-MOM	PRG-TRN	Continued PLC training with DFH.
02/28/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Made McMaster order for parts to mount the online analyzers probs in the BIO2 tanks. Increased pre-chlorine multiplier from 4 to 7 due to low UVT. Made several attempts to clean and zero calibrate the UVT analyzer. No success. The analyzer reading lab water as 90%UVT instead of 100%. MAA measured the UVT at 65% using the DR6000.
02/28/2023	DFH	MCC-MOM	CMT-INT	Attempting calibration and cuvette cleaning with GXK and MAA.
02/28/2023	MAA	MCC-MOM	OPR-WTO	Tested EFF UVT. Trained DFH in UVT check with Hach.
02/28/2023	MAA	MCC-MOM	SAM-WTO	Collected Daily EFF sample, Weekly A samples. Iced and stored. pH and EC readings. Began MBT and AER2 MLSS analysis.
02/28/2023	DFH	MCC-MOM	PRG-TRN	Continued PLC Training.
02/28/2023	DFH	MCC-MOM	SAM-WTO	MBT analysis with MAA.
02/28/2023	MAA	MCC-MOM	PRG-PLC	Continued PLC training.
02/28/2023	DFH	MCC-MOM	PRG-TRN	Continued PLC Training.
02/28/2023	GXK	MCC-MOM	OPR-WTO	Continue to troubleshoot the UVT analyzer. Reset the analyzer to factory settings. Next, I restored the configuration settings. Next I run two zero calibrations. Now the analyzer is reading lab water at only 75%UVT, and the filtrate sample flow as 48% UVT when in reality it is 65% UVT. It left me no other choice so I adjusted the 4-20 signal output setting on the analyzer: I reduced the 20mA signal SP from 100 to 73% to achieve SCADA reading of 65% UVT. I will contact the manufacturer tomorrow for advice.
03/01/2023	KTV	MCC-MOM	PRG-PLC	Reviewed MAA and DFH IO configuration programs and discussed issues. Started mock dosing program with 8 valves, 2 pumps and a flow meter. Helped them configure the basic program file and assigned them with finishing the IO config and HOAs.
03/01/2023	DFH	MCC-MOM	PRG-TRN	Continued PLC training.
03/01/2023	EJT	MCC-MOM	OPR-WTO	Reviewed SCADA analysing UV station for cleaning,
03/01/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs. Cleared alarms and adjusted A ratio.
03/01/2023	MAA	MCC-MOM	PRG-PLC	Continued PLC training.
03/01/2023	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample, weekly composite samples, and tested permeate sample for pH and EC.
03/01/2023	DFH	MCC-MOM	PRG-TRN	Continued PLC training.
03/01/2023	MAA	MCC-MOM	PRG-PLC	Continued PLC training.
03/01/2023	DFH	MCC-MOM	PRG-TRN	Continued PLC training.
03/01/2023	JRW	MCC-MOM	OPR-WTO	Organized confined space entry equipment. Then ran two sets of free & total CL residual tests for MCC's effluent, will notify GXK of results. Monitoring UVT as per KTV instructions.
03/01/2023	EJT	MCC-MOM	OPR-WTO	reviewed log book, and daily time entry.

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03/01/2023	KTV	MCC-MOM	OPR-WTO	Noticed low UVT returned. Discussed with GXK since I saw he reduced prechlorination. Increased prechlorination back to what it was prior to today's decrease- 7 mg/L dose. Set up JRW to assist GXK with onsite prechlorination residual observations so GXK could continue working on it remotely.
03/01/2023	MAA	MCC-MOM	OPR-WTO	With JRW, checked UVT with Hach. Trained JRW in testing UVT.
03/01/2023	KTV	MCC-MOM	OPR-WTO	Further discussion with GXK about low UVT. Trends show a strong correlation between rain and low UVT. If rain quality is the cause, then time is the only true solution. Prechlorination is helping, but not doing enough. GXK hypothesizes the backpulse tank has fouling which is contributing, so discussed cleaning ideas with him and plan to start first thing in the morning.
03/01/2023	CEA	MCC-MOM	OPR-WTO	Plant status checks and review of overnight alarms. Increased A Ratio to 1.25 in preparation for today's forecast rain.
03/01/2023	KTV	MCC-MOM	PRG-PLC	Programming training review with MAA and DFH. Clarified AOI and UDT features. Wrote HOA logic and mirrored the logic in an AOI with a UDT.
03/01/2023	EJT	MCC-MOM	OPR-WTO	Reviewing log book, sample sign sheet, process log, SCADA system, process, historical trending, compliance overview, plant walk, HP system, order control bed's, chemical room, MBR1/2, backwash tank, electrical room 3000/4000, Bio train1/2, distribution pump's upper/lower, UV station, EFF compositor, EQT, IPS PDPS, INF compositor, MBT electrical room 7000/2000, headworks, empty compactor trash, spraying down rotary drum screen, Yellow lining.
03/01/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, reviewed trends, sampling sign sheet, processes log. compliance check. In-depth yellow-lining walkthrough.
03/01/2023	DFH	MCC-MOM	PRG-TRN	With KTV and MAA, PLC training.
03/01/2023	MAA	MCC-MOM	PRG-TRN	PLC training with KTV and DFH.
03/01/2023	JRW	MCC-MOM	OPR-WTO	Continuation of plant walk. Then consulted with KTV about UVT, began trend investigation; it seems UV Train 1 will be needing to be cleaned soon due to high ballast power & low dosage. Consulted with EJT & CEA.
03/01/2023	MAA	MCC-MOM	PRG-TRN	Continued PLC training.
03/02/2023	CEA	MCC-MOM	OPR-WTO	Plant process and Eff quality checks, review 2023 mccdata. Discussing with KTV Eff low UVT and corrective action plan. Bluff and Legacy Park pumping station and IW2 checks.
03/02/2023	KTV	MCC-MOM	OPR-WTO	Discussed back pulse tank cleaning plans with CEA and MAA. Both started gathering materials for the work. CEA reminded me of daily samples, so had JRW collect daily samples prior to shutting down the membranes and he will deliver personally to PCL. EQ level at start of work is ~3.5 feet. Shut down prechlorination and both MBRs to drain the back pulse tank. Will refill the back pulse tank with permeate and test for chlorine prior to mixing in acid for the clean.
03/02/2023	MAA	MCC-MOM	CMT-GLB	Back pulse Tank: Received instructions for BPT clean with Citric Acid solution from KTV. With CEA and EJT drained BPT, and prepped citric acid pump. Continued filling BPT with permeate and recirculating permeate to EQ while monitoring CL2 residual in BPT.
03/02/2023	CEA	MCC-MOM	CMT-GLB	Back pulse tank: Shut down MBR process in preparation for back pulse maintenance cleaning.
03/02/2023	JRW	MCC-MOM	CMT-GLB	Assisted setting up for back pulse citric acid clean.

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03/02/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, reviewing SCADA system,
03/02/2023	EJT	MCC-MOM	CMT-GLB	Back pulse tank drained for cleaning with citric acid.
03/02/2023	CEA	MCC-MOM	CMT-GLB	Rinse and drained the Back pulse tank, and prepare and added chemicals citric acid 4 gals. total added.
03/02/2023	JRW	MCC-MOM	SAM-WTO	Collected daily sample due to expected system standby for BPT citric acid cleaning. Then prepared sample, transported sample to Pat Chem Lab. Then returned to MCC.
03/02/2023	MAA	MCC-MOM	CMT-GLB	CL2 down to ~0.0ppm. Started mixing citric acid at BPT and mixing. Monitored pH until reaching ~3.12ph at 4 gals of citric acid. Verified pH with Hach in lab. Left mixture of Citric Acid/permeate soak BPT.
03/02/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Assisted the guys with the BPT acid cleaning.
03/02/2023	EJT	MCC-MOM	CMT-GLB	continuing clean on back pulse tank.
03/02/2023	CEA	MCC-MOM	CMT-GLB	Draining the back pulse tank, with Vactor truck completed the cleaning of the tank.
03/02/2023	JRW	MCC-MOM	CMT-MET	Uninstalled SC200 BPT NOX analyzer, then stored in MCC OPS.
03/02/2023	KTV	MCC-MOM	OPR-WTO	Attempted cloning my programming VM and running it on the site PC. Unable to do so due to VMWare version difference, so will have to investigate if that is fixable. Discussed back pulse tank cleaning status with GXK and supervised cleaning work and system restart.
03/02/2023	MAA	MCC-MOM	CMT-GLB	Continued BPT clean. Drained and scrubbed walls of tank. Used Vactor to remove citric acid mixture + solids. Rinsed BPT. Emptied Vactor, re-filled BPT and monitored pH. At pH of 7, ran MBR production and monitored UVT.
03/02/2023	EJT	MCC-MOM	CMT-GLB	Back pulse tank clean with citric acid.
03/02/2023	JRW	MCC-MOM	CMT-MET	Uninstalled 1720E turbidity meter, then stored in MCC OPS. Uninstalled SC200 UVT meter, then stored in MCC OPS.
03/02/2023	CEA	MCC-MOM	CMT-GLB	BPT cleaning completed, enabled MBR process, refilled BPT monitoring pH during refilled pH normal to 6.9, and resumed production. Monitoring Eff quality, and EQT levels.
03/02/2023	KTV	MCC-MOM	OPR-WTO	Assisted with system restart. Manually ran P-1250 at 100% since the control loop was taking too long to keep up with MBR permeate flow. This caused MBR feed flow to drop due to low post anox level, so reduced overall system flow to prevent thickening in the membrane tank while running P-1250 at 100% to bring level up quickly.
03/02/2023	EJT	MCC-MOM	CMT-GLB	back pulse tank clean, flushing citric acid through tank, monitoring UVT/Ph/NTU.
03/02/2023	MAA	MCC-MOM	OPR-WTO	Monitoring UVT; trending upwards since BPT clean but still below 65%.
03/02/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/02/2023	JRW	MCC-MOM	CMT-PLB	With EJT, filled MBT BPT with 200 gallons of water; then added 8 gallons of hypochlorite. Per CEA, will continue with MBT cleaning tomorrow.
03/02/2023	KTV	MCC-MOM	OPR-WTO	Discussed operational strategy with CEA during current system restart. Discussed possible causes of low UVT and additional corrective actions with RRV.

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03/02/2023	CEA	MCC-MOM	OPR-WTO	With GXK, discussing plant process and possible causes of low UVT%, reviewing MBR production, disabled EQT level smoothing, and changed the A ratio adjusting production to 100 gpm. Monitoring plant operations, Eff quality, and UV performance.
03/02/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs. Cleared alarms. Adjusted A ratio and EQT smoothing following up on earlier prolonged production shutdown.
03/03/2023	CEA	MCC-MOM	OPR-WTO	Plant process and Eff quality checks, review of process data trends. Bluff and Legacy parks pumping stations, and IW2 checks.
03/03/2023	KTV	MCC-MOM	OPR-WTO	Discussed analyzer work completed yesterday with JRW. Reviewed possible process scum layer issues with MAA and EJT. MAA and EJT are working on lifting mixers to recombine the upper scum layer into the process.
03/03/2023	CEA	MCC-MOM	CMT-GLB	MBT MBR: Shut down the aeration process, prepare the membrane for CC, and inject chlorine solution. Schedule 5k sludge haul for later today.
03/03/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, then meeting with KTV; after this re-wrapped 4001's with electrical nuts/tape. Also ran a UVT & CL residual for EFF per KTV instructions.
03/03/2023	MAA	MCC-MOM	OPR-WTO	SCADA check. Reviewed UVT trends.
03/03/2023	EJT	MCC-MOM	CMT-GLB	adjusting mixer level
03/03/2023	MAA	MCC-MOM	CMT-GLB	Ran mixer at ~water level and in between normal position and water level to recombine scum layer in Pre-Anox 1. Ran mixer at ~water level and in between normal position and water level to recombine scum layer at Pre-Anox basin 2.
03/03/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/03/2023	EJT	MCC-MOM	CMT-GLB	positioning mixer low/mid/high positioning mixer low/mid/high.
03/03/2023	MAA	MCC-MOM	OPR-WTO	Calibrated portable TSS probe to MLSS concentration on AER3, ~9600mg/L.
03/03/2023	MAA	MCC-MOM	CMT-GLB	Ran mixer at ~water level and in between normal position and water level to recombine scum layer. Took TSS reading with mixer in normal position, mid and high positions. Ran mixer at ~water level and in between normal position and water level to recombine scum layer, Took TSS readings when mixer at normal position, mid, and high positions.
03/03/2023	CEA	MCC-MOM	SAM-WTO	Conduct Bio2 process MLSS samples analysis at the lab. Lab housekeeping.
03/03/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. The UVT is still low at 63%T. Researched in the plant logs and found that last time we had low UVT we used Alum. Consulted with RRV about the possibility to use ALUM. We decided to put the Vortex Grit removal back into service for the increased recycling of plant water. And to start dosing Alum into the POA# tank.
03/03/2023	CEA	MCC-MOM	PMT-GLB	Hauled 5,000 gallons from Solids Storage Tank.
03/03/2023	EJT	MCC-MOM	SAM-WTO	Collection of daily EFF sample, calibration of pH/EC, conducting pH/EC test, recording results on COC, placed sample in IPC North sample box.

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03/03/2023	MAA	MCC-MOM	OPR-GLB	Using service truck moved drum of Alum from Chem storage to BIO2 Post Anox 2. Picked up spare chem pump offsite
03/03/2023	CEA	MCC-MOM	CMT-GLB	MBT: Membrane CC (chlorine) completed, primed P-73X0, and resumed production.
03/03/2023	EJT	MCC-MOM	CMT-GLB	adjustment to mixer level low/mid/high.
03/03/2023	JRW	MCC-MOM	OPR-WTO	Reviewed logbook & sampling sign sheet, unloaded empty CL buckets from MBI for bucket spares per CEA. Met with MAA to discuss plans towards EOD.
03/03/2023	MAA	MCC-MOM	OPR-GLB	Cleaned BIO2 area and put away crane. Cleaned chem pump for Alum dosing.
03/03/2023	GXK	MCC-MOM	OPR-WTO	Put the Vortex grit removal system back into service. It resulted in an alarm 321 due to some conflict of valves. I tried to understand the conflict but I didn't see any. I ended up inactivating the alarm.
03/03/2023	EJT	MCC-MOM	PMT-GLB	Hauled 5,000 gallons from Solids Storage Tank.
03/03/2023	EJT	MCC-MOM	GEN-ADM	Reviewing daily Time entry, and submitting time sheet.
03/03/2023	GXK	MCC-MOM	OPR-WTO	Installed a temporary Alum dosing pump next to BIO2 PoA1. Took the power of P8410 and connected a power plug for the Alum pump. I set the dosing right on top of the overflow from PoA1 to PoA2 for efficient mixing. I started the pump at 100% speed and got a calculated daily flow of 8.66 GPD. I reduced the speed to 70% to achieve the desired 6 GPD. The Alum drum is 2/3 full with Alum level at 24".
03/03/2023	GXK	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/04/2023	CEA	MCC-MOM	OPR-WTO	Plant status checks -normal, review process data trends and UV system performance. Bluff and Legacy parks pumping stations, and IW2 checks.
03/04/2023	JAA	MCC-MOM	SAM-WTO	By GXK request increase the new MCC Alum chemical dosing pump speed from 70 to 99%. Perform pH and EC test after calibrating the probes. Collect daily samples Iced and storage.
03/05/2023	CEA	MCC-MOM	OPR-WTO	Plant status checks -normal, review process data trends and UV system performance. Bluff and Legacy parks pumping stations, and IW2 checks.
03/05/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs.
03/05/2023	EDM	MCC-MOM	SAM-WTO	Calibrated pH / EC, Took daily EFF samples and prepared sample paperwork for lab pick-up. Took daily pH and EC reads and added results to sample COC & log
03/06/2023	CEA	MCC-MOM	OPR-WTO	Plant status checks -normal, review process data trends and UV system performance. Conduct plant routine rounds Headworks and MBT. Bluff and Legacy parks pumping stations, and IW2 checks.
03/06/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, reviewed trends, sampling sign sheet, processes log. compliance check. Researched low UVT possible causes, then consulted with KTV; also reviewed alum dosing with KTV.
03/06/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data.
03/06/2023	CEA	MCC-MOM	CMT-GLB	MBT: Solids storage tanks running at normal operating levels, purged P-7310 and resumed production, observed and adjusted flow rate and relax/filter timer.
03/06/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/06/2023	MAA	MCC-MOM	GEN-ADM	Time review.

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03/06/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/06/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
03/06/2023	JRW	MCC-MOM	OPR-WTO	Plant-walkthrough then worked on general housekeeping. Searched for Pilot keys, then gathered sampling supplies for transport, and transferred equipment from truck to pilot. With DFH & GXK, GXK reviewed troubleshooting problematic valve on UV Train 2. Short meeting with EJT & DFH regarding MCP. Reviewed logs.
03/06/2023	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested permeate sample for pH, EC, NH3, NO2, NO3, Alk, and Cl2. Sort and organized COC documents with correct Quarter binders.
03/06/2023	DFH	MCC-MOM	OPR-WTO	Inventory management. Reviewed MOV-5121 with GXK and associated alarm for valve not fully closing.
03/06/2023	GXK	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/07/2023	CEA	MCC-MOM	OPR-WTO	Plant process check, Headworks, MBT, and UV performance checks. Bluff and Legacy Parks pumping stations and IW2 checks. Plant routine rounds, with JAA discussed plant ground housekeeping.
03/07/2023	JAA	MCC-MOM	OPR-WTO	With CEA Walk through the plant and discuss housekeeping can be done.
03/07/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data. Plant walk, inspected chemical storage, odor control, UV system, upper blower rooms, MBT, headworks, and electrical rooms. Removed trash from SC-2101 and SC-2302. Cleared stuck debris caught in shoot of SC-2302.
03/07/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA system, process, historical trending, UVT is improving.
03/07/2023	JAA	MCC-MOM	GEN-ADM	Double check invoices recipes we have on hand match we the ones have been downloaded at the system.
03/07/2023	EJT	MCC-MOM	OPR-WTO	Reviewed compliance overview.
03/07/2023	DFH	MCC-MOM	PRG-TRN	PLC training.
03/07/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Adjusted pre and post-chlorine doses.
03/07/2023	DFH	MCC-MOM	SAM-WTO	Collect daily EFF, weekly EFF A, and Process samples and tested permeate sample for pH and EC. Collected sample from AB3 and MBT and started MLSS lab analysis.
03/07/2023	JAA	MCC-MOM	GMT-HSK	Collect piping is lays down around the plant and bring it to headworks to keep it stored in one place.
03/07/2023	JAA	MCC-MOM	OPR-GLB	Clean truck. Clean and maintenance tools.
03/07/2023	DFH	MCC-MOM	PRG-TRN	Continued PLC Training.
03/07/2023	DFH	MCC-MOM	SAM-WTO	Completed MLSS analysis.
03/08/2023	JAA	MCC-MOM	OPR-WTO	Review logbook. Review SCADA and trends. Walk through the plant for visual checks.
03/08/2023	DFH	MCC-MOM	OPR-WTO	Collections, Reuse, and Inventory management review with KTV.
03/08/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, compliance review, logbook review, plant check. Prepared then dropped off samples to sample pick-up box. Organized new equipment & previous COC's.
03/08/2023	MAA	MCC-MOM	OPR-WTO	SCADA and log checks.
03/08/2023	CEA	MCC-MOM	CMT-GLB	B-410: The motor made an unusual noise like drive belt slippage, I adjusted the v- belt tension to correct the issue.

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/08/2023	MAA	MCC-MOM	PRG-TRN	PLC training. Working on sample DT program.
03/08/2023	MAA	MCC-MOM	PRG-TRN	Continued PLC training.
03/08/2023	JAA	MCC-MOM	GMT-DIG	Clean and wash the vactor truck.
03/08/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Set up JRW with hardware to modify the brackets of the online probes in BIO2.
03/08/2023	JRW	MCC-MOM	GEN-TRV	Picked up pump from Biosolutions per CEA request, then dropped off at MCC OPS.
03/08/2023	DFH	MCC-MOM	CMT-INT	Removed old UVT analyzer stand. Will need to build a wooden stand to setup analyzer inside ops building.
03/08/2023	MAA	MCC-MOM	OPR-GLB	Gathered materials to build Micro C pump cover(s). Grabbed spare dosing pup from headworks to replace with Micro-C pump 2.
03/08/2023	JRW	MCC-MOM	CMT-MET	Installed new L bracket mounting hardware. Installed new L bracket mounting hardware.
03/08/2023	DFH	MCC-MOM	SAM-WTO	Collect daily EFF, Monthly EFF, Weekly EFF B, and weekly INF samples and tested permeate sample for pH and EC.
03/08/2023	JAA	MCC-MOM	GMT-AUT	Perform maintenance to the truck and took.
03/08/2023	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/08/2023	JRW	MCC-MOM	CMT-MET	Installed new L bracket mounting hardware. Installed new L bracket mounting hardware. Installed new L bracket mounting hardware.
03/08/2023	GXK	MCC-MOM	OPR-WTO	Troubleshoot the Micro-C pumps. Assisted DFH with UV maintenance.
03/08/2023	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/08/2023	JAA	MCC-MOM	OPR-GLB	Completed safety skills training for this month.
03/08/2023	DFH	MCC-MOM	CMT-ELT	Changed UV priority to bring UV1 on standby. Powered down UV, drained UV tank, and began removing motor to access seized set screw. Drilled out set screw and removed. Replacement set screws in UV parts box was too big, for now left 1 set screw until more are ordered. Verified lamp orientation with GXK and began reinstalling equipment. With GXK, off spec'd for 30min, filled UV chamber, verified no leaks, and brought UV1 back online. Monitored dose and ballast power, normal. Cleaned up work site.
03/08/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Searched for a suitable replacement set screws for the UV wiper motor mount.
03/09/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks, Headworks, MBT, and UV system performance checks, and plant routine rounds. Bio2 basin 3 low DO < 1.0 mg/L and biofluff is disabled, no changes were made will consult with GXK. Bluff and Legacy park pumping stations, and IW2 checks.
03/09/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA system, process, historical trending, compliance overview,
03/09/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, compliance check, process log, sampling sign sheet, and logbook review. Then plant-walkthrough, no abnormalities. UVT has improved significantly through alum dosing it seems.
03/09/2023	JAA	MCC-MOM	OPR-WTO	Read logbook. Check and review SCADA and trends.

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2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/09/2023	JRW	MCC-MOM	GMT-AUT	Washed truck.
03/09/2023	CEA	MCC-MOM	CMT-GLB	Unit disabled and hang LOTO for a routine maintenance inspection. Found bad Belts, and no spare belts on hand place an order for replacement belts.
03/09/2023	JAA	MCC-MOM	CMT-GLB	Unit is been put out of service after the maintenance inspection. CEA and I agree the belts have to be replaced. Unfortunately, we don't have the spare parts, CEA will place the order of the replacement parts.
03/09/2023	JRW	MCC-MOM	CMT-MET	Installed new L bracket mounting hardware.
03/09/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/09/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
03/09/2023	JAA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/09/2023	CEA	MCC-MOM	CMT-GLB	Unit disabled and hang LOTO for a routine maintenance inspection.
03/09/2023	JAA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/09/2023	JRW	MCC-MOM	CMT-MET	Installed new L bracket mounting hardware.
03/09/2023	JAA	MCC-MOM	CMT-GLB	Inspect the unit. With CEA aligning and adjusting sheave and drive belts. Maintenance completed. CEA returned the unit back to service.
03/09/2023	JRW	MCC-MOM	SAM-WTO	Calibrated pH & EC probe, then obtained daily sample.
03/09/2023	JRW	MCC-MOM	GEN-TRV	Dropped off service truck to CMA.
03/09/2023	CEA	MCC-MOM	CMT-GLB	Unit inspection - okay, aligning and adjusting sheave and drive V-belts. Maintenance completed. Removed LOTO and put the unit back into service.
03/09/2023	JRW	MCC-MOM	GMT-HSK	Worked primarily on housekeeping for zone 4000, went down ladder in order to access leave piles. Swept then collected leaves.
03/09/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/09/2023	JAA	MCC-MOM	OPR-WTO	Review SCADA and trends to understand the process more.
03/09/2023	GXK	MCC-MOM	OPR-WTO	Continue to troubleshoot the MicroC pump. Attempted to switch P8410 with one of the old magnesium hydroxide pumps. One of the back connector screws was seized and got stripped. I attempted to extract it but it is seized so badly that it brock the extractor.
03/09/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/10/2023	JAA	MCC-MOM	OPR-WTO	Read log, review SCADA.
03/10/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, compliance check, process log, sampling sign sheet, and logbook review.
03/10/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks, monitoring levels and flow during heavy rain. Bluff and Legacy Park pumping station, and IW2 checks.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/10/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Adjusted process tot he rain. Gradually increase the A ratio to match the access rain water flow to the plant. Reduce the chlorine dose multiplier. Increase PAB pressure SP from 6.6 to 6.8 psi. Cleared alarms.
03/10/2023	CEA	MCC-MOM	OPR-WTO	Plant process and tanks levels monitoring during heavy rain. Headworks and UV system performance checks.
03/10/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Made last production adjustments before leaving for the weekend. Increased production to the max of 150 GPM due to increasing in EQT level and expected intense rain all night long.
03/10/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal.
03/10/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Adjusted aeration SP, pre and post-chlorination SPs.
03/11/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs.
03/11/2023	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrating the probes. Collect daily samples Iced and storage. By GXK request puy and stand by the Alum pump.
03/11/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs.
03/12/2023	EDM	MCC-MOM	SAM-WTO	Calibrated pH / EC, Took daily EFF samples and prepared sample paperwork for lab pick-up. Took daily pH 7.60 and EC reads and added results to sample COC & log
03/12/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs. Increased pre-chlorination to 5. Adjusted Aeration SP to 6.7 psi.
03/13/2023	CEA	MCC-MOM	OPR-WTO	Plant operations and review of process date trends checks. Bluff and Legacy Parks pumping stations, and IW2 checks.
03/13/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA system, process, historical trending, compliance overview, plant walk- HP system, order control beds, chemical room, MBR 1/2, Backwash tank, electrical room 3000/4000, Bio train1/2, lower/upper distribution pump's, UV station, EFF compositor, intermediate pump station, electrical room 2000, INF pump station/PDPS, INF compositor, MBT, electrical room 7000, headworks, empty compactor/course screen trash, sprayed inside rotary drum 1 screen, percolation ponds.
03/13/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, compliance overview, logbook review.
03/13/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/13/2023	MAA	MCC-MOM	CMT-ELT	Received instruction from KTV to wire BFV-3104 power to spare contact breaker at LCP3A. Verified wiring from LB-3114 was coiled wiring under LCP3A/B. Notified KTV main breaker at LCP3A was going to be open and opened breaker. Landed wiring from LB-3114 for BFV 3104 at CB18. Left CB18 open, closed main breaker and patched up panel.

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2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/13/2023	CEA	MCC-MOM	CMT-GLB	Gen low battery charging warning, battery charger fault, troubleshooting battery charger found power disabled related to MAA electrical work.
03/13/2023	CEA	MCC-MOM	OPR-WTO	MBR production and UV system shut down in support of MAA electrical wiring work for BIOX air supply valves. Flush WAS and RAS lines with high- pressure plant water.
03/13/2023	MAA	MCC-MOM	CMT-ELT	BFV-3204: Opened main breaker at panel LCP-3B. Verified wiring from LB-3214. Landed wiring from LB-3214 for BFV at CB19. Left CB19 open and patched up panel. Closed LCP-3B main breaker and checked with CEA that instrumentation and equipment had resumed operation.
03/13/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Cleared alarms. Adjusted A ratio to 2. Suspended wasting. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
03/13/2023	CEA	MCC-MOM	OPR-WTO	Electrical work was completed by MAA, and power was back on. Enabled MBR process and resumed production, adjusted production flow rate: 1) disabled EQ smoothing. 2) Set A Ratio to 1.80 flow rate set at 120 gpm. Monitoring plant process.
03/13/2023	CEA	MCC-MOM	SAM-WTO	Effluent quality check - OK. Collect plant daily Effluent compliance samples for lab analysis, set up cooler for PCL pick up.
03/13/2023	MAA	MCC-MOM	GMT-AUT	Truck housekeeping.
03/13/2023	EJT	MCC-MOM	GEN-ADM	Reviewing daily time entry and uploading PO's.
03/13/2023	GXK	MCC-MOM	OPR-WTO	Troubleshooting low UVT. Cleaned and calibrated UVT analyzer. Adjusted prechlorination and Alum dosing. CEA reported clogging in the sludge wasting line. Tested MOV4700 wasting sludge flow rate at 12.5% open valve. Observed low flow of about 9 GPM. We will need to flush the line with pressurized water. INcreased aeration SP to 6.9 psi.
03/14/2023	CEA	MCC-MOM	OPR-WTO	Plant process and Eff quality checks, EQT level at 4.2 ft. increase production: 1) A ratio to 1.20 and 2) decreased smoothing time from 6 to 3 hours in preparation for the rain. Bluff and legacy park, and IW2 checks.
03/14/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Increased prechlorination SP from 5 to 6 mg/L due to low UVT. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Collected weekly samples for lab analysis.
03/14/2023	JAA	MCC-MOM	OPR-GLB	Driver to PAT- CHEM Lab to drop a samples.
03/14/2023	GXK	MCC-MOM	OPR-WTO	Collected process samples. Run ML TSS and complete EFF quality analysis in the lab.
03/14/2023	JAA	MCC-MOM	OPR-WTO	Review logbook.
03/14/2023	GXK	MCC-MOM	OPR-WTO	Monitoring and adjusting production in response to the rain. Adjusted UV train valves to equalize the flow between the trains based on their dosing.
03/14/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. We started to lose ground due to the heavier rain. I increased filtration to the max of 160 GPM and started operating P1210 in Hand to preemptively transfer to BIO1 storage tank in preparation for even heavier rain later at night.

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2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/14/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Managed to lower the EQT from 6.7 to 5.8 ft. so I suspended P1210 transfer to BIO1. The rain slowed down a little bit so I'll continue to monitor.
03/14/2023	KTV	MCC-MOM	OPR-WTO	Received multiple zone 2 alarms due to rain. Remote check showed high EQT level at 2200 near 8.5 feet with a steady upward trend. Started P-1210 to reduce the magnitude of the level increase. Monitored remotely.
03/14/2023	RRV	MCC-MOM	OPR-WTO	2233 & 2239 Alarms: Several Headworks alarms due to rain; RDS Running Too Long, EQ Tank Level HiHi (7.1 feet), and EQ Tank Excessive 1 Hour Level Increase. Monitored system to determine if changes are necessary and bypassed indicated alarm dial outs on timer. I am aware GXK was doing something with P-1210 earlier this evening, but not sure what it was. In the first half hour of monitoring, the EQ Tank level increased 1 foot, from 7 to 8 feet, which represents an average input of about 500 gpm (333 gpm increase + 150 gpm removed). This is untenable for the long term, so I am considering using P-1210 to transfer sewage to BIO1, but will postpone that move until the EQ Tank level rises above 9.0 Feet. While monitoring the system, I noticed P-1210 started without my input when the level reached 8.3 feet, and inquired with staff if someone turned it on. KTV indicated he had done it. Continued monitoring all night as hard rain persisted. KTV shut down P-1210 at 0100 hrs and I relieved him from further monitoring so he can get some sleep before coming in. Progress was being made on bringing the EQ Tank level down slowly, but another burst of rain reversed the trend around 0300. Restarted P-1210 at 8.8 feet in EQ Tank. Level climbed to 9.8 feet by 0330, so I increased filtration rate in spite of lower than desired TCSF, averaging about 13 gfd/psig. I set the A Ratio to 2.50 and capped it there, which yields an EQ Flow rate of about 165 gpm. That was enough to stop the EQ Tank level from increasing further, but it is causing the PAT level to drop slowly, so I began backing it off to optimize both ends of capacity. I have smoothed in DISABLED now for more positive control of membrane capacity in an attempt to improve TCSF now that EQ Level is trending downward again. Ratio Mode selector is in HAND with A Ratiio at 2.15. Shut off P-1210 at 0600 hrs, when EQ Tank level reached 9 feet.
03/14/2023	KTV	MCC-MOM	OPR-WTO	Discussed rain issues with RRV while monitoring remotely. Rain appears to be decreasing.
03/14/2023	GXK	MCC-MOM	OPR-WTO	Rain intensify so I logged in remotely. Checked plant functions OK. Inspected trends are normal. We started to lose ground again and the slop is extreme. KTV beat me to restarting P1210 transfer. Even with the transfer we are rapidly losing ground.
03/15/2023	KTV	MCC-MOM	OPR-WTO	Rain has decreased enough to turn off P-1210, so put P-1210 in OFF. RRV noticed permeability was down, so investigated and found that system flow was much higher than desired due to the automatic A Ratio increase logic. Put system flow back in full auto with EQT smoothing which soft limits system flow to 137.5 gpm. Permeability back to normal following this change. Handed off control to RRV.
03/15/2023	CEA	MCC-MOM	CMT-GLB	VFD fault due to a power outage, Reset VFD at the bucket and restart motor- okay. VFD fault due to a power outage, Reset VFD at the bucket and restart motor- okay. VFD fault due to a power outage, Reset VFD at the bucket and restart motor- okay. Reset VFD at the bucket. VFD fault due to a power outage, Reset VFD at the bucket and restart motor- okay. VFD fault due to a power outage, Reset VFD at the bucket and restart motor- okay.
03/15/2023	CEA	MCC-MOM	CMT-GLB	Pre-Anox basin 1: Setting up temporary transfer pump and resumed transfer to the old septic tank. Monitoring levels.

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Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/15/2023	KTV	MCC-MOM	OPR-WTO	Discussed high EQT and BIO1 level with CEA on arrival. Decided to transfer as much as possible from BIO1 to the old EQ storage tank. CEA started transfer. Monitored EQT system flow and manually controlled the system until EQT level began to decrease. Put everything back in AUTO once level was under control and discussed with CEA and GXK how to run the system over the next few days to generate as much storage space as possible in BIO1 and storage.
03/15/2023	CEA	MCC-MOM	OPR-WTO	Plant process checks and review levels trends. Cleared B-7210 VFD fault, enabled aeration, and resumed production. Bluff and Legacy Parks pumping stations, and IW2 checks.
03/15/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs. Adjusted UV2 flow valve. Cleared alarms. Reduced pre-chlorination back to 3.5 due to increased UVT. Reduced aeration SP to 6.7 due to high BIO2 DOs. Increased P3211 speed from 95 to 97% to reduce ORP and increase denitrification.
03/15/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/15/2023	CEA	MCC-MOM	SAM-WTO	Collect weekly B samples for lab analysis. Lab equipment housekeeping.
03/15/2023	CEA	MCC-MOM	SAM-WTO	Effluent quality check - OK. Collect daily Effluent compliance samples for lab analysis, and set up a cooler for PCL pick up. Eff Pre-UV high cl2 residual 2.22mg/L consult with KTV and reduce Pre-Chlor residual sp from 4.50 to 2.50 mg/L.
03/15/2023	CEA	MCC-MOM	PMT-INT	Completed equipment calibrations.
03/15/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/15/2023	CEA	MCC-MOM	PMT-INT	Completed equipment calibrations.
03/15/2023	JRW	MCC-MOM	OPR-WTO	Met with KTV, then packed up CSE equipment for transport.
03/15/2023	KTV	MCC-MOM	PRG-PLC	Set PLC2 - PLC7 clocks to adjust for DST. Powered on the new BIO air flow control valves and tested, but valves are non-responsive so further investigation is required.
03/15/2023	CEA	MCC-MOM	OPR-WTO	Monitoring plant process, UV performance, EQT and BIO 1 Pre-Anox transfer levels. Disabled MBR CC. Disabled temporary transfer pump, picked up hoses, and cleaned up.
03/15/2023	CEA	MCC-MOM	CMT-GLB	Bump test motor- okay.
03/15/2023	CEA	MCC-MOM	CMT-GLB	Review the logbook following up on the status of motor repairs.
03/15/2023	CEA	MCC-MOM	CMT-GLB	PV-2108 Vortex grit chamber bypass valve: Valve not closing all the way, exercise, monitor the next influent pumps cycle, and verify no leaks at the grit chamber
03/15/2023	CEA	MCC-MOM	OPR-WTO	Plant status checks EQT level at 4.0 ft. change A ratio from 2.15 to 1.20 decreased production to ~100 gpm
03/16/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks, and level trends review. Bluff and Legacy park, and IW2 checks. Set up temporary transfer pump and resumed product from the rain transferring from the old storage tank to BIO1. Resumed transfer from BIO1 to BIO2 and set the flow to ~ 20 gpm.

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2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/16/2023	KTV	MCC-MOM	OPR-WTO	Reviewed excess rain flow storage transfer with CEA and overall progress. UVT is low but began trending down prior to transfer. Increased pre-cl2 to compensate and increased Alum from 70% to 100%. Reviewed trends and decided to remove EQ smoothing so that I can run EQ higher to accommodate the unmetered flow going directly into BIO2. Started with A Ratio at 1.30. Also started making space in the old EQ by transferring to BIO1 while transferring from BIO1 to BIO2.
03/16/2023	CEA	MCC-MOM	CMT-GLB	Unit checked- okay. Unit checked- okay. Unit checked- okay. Unit checked- okay. Unit checked- okay. Unit checked- okay, verify flow- normal. Unit checked- okay.
03/16/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs. Adjusted A ratio and chlorine multiplier.
03/16/2023	CEA	MCC-MOM	PMT-INT	Completed equipment calibrations.
03/16/2023	CEA	MCC-MOM	GMT-HSK	Inspect confined space entry equipment, and wash harnesses and equipment. Clean up and organize containers, and check for spare parts inventory.
03/16/2023	CEA	MCC-MOM	SAM-WTO	Effluent and process quality check - OK. Collect daily Effluent compliance samples for lab analysis, and set up a cooler for PCL pick up. Eff quality MCC lab testing.
03/16/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/16/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/16/2023	CEA	MCC-MOM	OPR-WTO	Monitoring plant processes checks enabled EQ level smoothing and set A Ratio to 1.00, disabled transfer pumps, pick up and clean up the job site.
03/17/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks, monitoring plant processes in preparation for transferring of extra product from the storage tank to BIO2. Bluff and legacy Parks pumping stations, and IW2 checks.
03/17/2023	CEA	MCC-MOM	CMT-GLB	Repiping storage tank transfer pump discharge to plant drain and decanting.
03/17/2023	KTV	MCC-MOM	OPR-WTO	Started transferring from BIO1 to BIO2 - calculated flow leaving BIO1 ~70 gpm and manually set system flow to +70 gpm to process out the excess. Noticed UV dose was low at the higher flow, so discussed with CEA who will start cleaning all UV units. Manually adjusted system flow down to maintain dose while CEA was performing maintenance. Reviewed system status with GXK on arrival.
03/17/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, reviewed logbook, compliance review.
03/17/2023	EJT	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/17/2023	EJT	MCC-MOM	OPR-WTO	Reviewing log book, sample sign sheet, process log. Assisting Carlos with setup for UV clean,
03/17/2023	EJT	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/17/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/17/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/17/2023	EJT	MCC-MOM	GMT-HSK	House keeping.
03/17/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
03/17/2023	EJT	MCC-MOM	OPR-WTO	Changed Bio train1 transfer pump from pumping to the emergency storage tank to PDPS.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/17/2023	EJT	MCC-MOM	SAM-WTO	Collection daily EFF sample, calibration of pH/EC prob, ran analysis of final effluent, recorded results to COC and process log, iced and delivered sample and COC to pat-chem pick up box and updated sample sign sheet.
03/17/2023	EJT	MCC-MOM	GMT-HSK	Continuing house keeping,
03/17/2023	EJT	MCC-MOM	OPR-WTO	Headworks- changed compactor and course screen trash, sprayed down rotary drum screen 1and 2.
03/17/2023	EJT	MCC-MOM	OPR-TRN	Online safety training.
03/17/2023	EJT	MCC-MOM	GEN-ADM	Reviewing daily Time entry and submitting time sheet.
03/17/2023	GXK	MCC-MOM	OPR-WTO	Cleaning up in the lab. Inventory of lab supplies. Continue to try and extract the microC pump stripped screw. Talked to RRV about the last major rain event. We agreed we need to expedite the wall coring between BIO2 and BIO1 post anox 2 tanks.
03/18/2023	KTV	MCC-MOM	OPR-WTO	Remote SCADA and trend review okay.
03/19/2023	KTV	MCC-MOM	OPR-WTO	Responded to high NTU alarm. Arrived onsite and replaced cuvette, which helped but didn't solve the problem. Calibrated AIT-4002 and cleaned the cuvette and turbidity went back to normal.
03/19/2023	CEA	MCC-MOM	OPR-WTO	An alarm was received and acknowledged, remotely logged-in plant status check revealed the cause of the alarm Eff high turbidity, I contacted KTV he was already onsite.
03/19/2023	EDM	MCC-MOM	SAM-WTO	Calibrated pH / EC, Took daily EFF samples and prepared sample paperwork for lab pick-up. Took daily pH and EC reads and added results to sample COC & log.
03/20/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reduced the A ratio from 1.6 to 1.2 due to low EQT level and recirculation to the land drain. Adjusted the P8130 multiplier accordingly.
03/20/2023	CEA	MCC-MOM	OPR-WTO	Plant operations and process trends checks, BIO2 low DO < 1.00, increased PAB pressure from 6.6 to 6.7 psi B-5320 speed increased from 63 to 66.6%. Headworks, MBT, and UV performance checks. Bluff and Legacy parks pumping station and IW2 checks.
03/20/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, compliance overview, logbook review. After this consulted with KTV about current status of MCC & MPP. Due to irregular flow from rainy days, modified A ratio is below 1. Along with this UVT is extremely low at 55% however it seems UVT cleaning has helped, and UVT is steadily increasing. We are currently preparing for more rain by creating more room in our BIO1 & also clearing out our storage tank.
03/20/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA-process,
03/20/2023	CEA	MCC-MOM	PMT-GLB	Hauled 2,500 gallons from Solids Storage Tank.
03/20/2023	EJT	MCC-MOM	OPR-WTO	Historical trending, compliance overview, plant walk-HP system, order control bed's, chemical room, MBR and backwash tank, electrical room 3000/4000, Bio train1/2, lower/upper distribution pump's, UV station, EFF compositor, intermediate pump station, PDPS, INF pump station, MBT, electrical room 2000/7000, headworks, percolation ponds, empty compactor/course screening trash, sprayed down inside rotary drum 1/2,
03/20/2023	CEA	MCC-MOM	CMT-GLB	manually exercise the valve, flush WAS and RAS lines with high-pressure plant water.
03/20/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/20/2023	JRW	MCC-MOM	OPR-WTO	Plant walkthrough. also refilled paper towel dispensers, and purchased waters/sparkling waters for MCC. Also assisted CEA in setting up for BIO1 transfer.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/20/2023	KTV	MCC-MOM	OPR-WTO	Prepared for rain which is supposed to start overnight by increasing the A Ratio to 1.30 and the hours to smooth from 6 to 3 to increase the smoothing response. There's ~50,000 gallons of available storage space in BIO1 and an additional ~30k in the old storage tank.
03/20/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/20/2023	EJT	MCC-MOM	OPR-GLB	Cleaning bullet pumps and check valves,
03/20/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Adjusted pre-chlorination SP to 5 mg/L and reduced P8130 multiplier to 0.04 due to high chlorine residual. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Resumed BIO1 transfer in preparation for rain overnight. . Review recent DigAlerts emails.
03/20/2023	CEA	MCC-MOM	OPR-WTO	Plant process review with GXK, discussed UVT changes made and disabled alum dose for now.
03/20/2023	KTV	MCC-MOM	PRG-SDA	Made unused alarm lists invisible on the alarm dialer screen. Started PLC4 alarms configuration.
03/20/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/20/2023	JRW	MCC-MOM	SAM-WTO	Calibrated pH & EC probe, then obtained MCC's daily sample.
03/20/2023	CEA	MCC-MOM	PMT-GLB	Hauled 2,500 gallons from Solids Storage Tank.
03/20/2023	GXK	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/20/2023	EJT	MCC-MOM	OPR-WTO	Continuing cleaning pumps and check valves,
03/20/2023	KTV	MCC-MOM	PRG-PLC	Started setting up alarm bypass logic in PLC4.
03/20/2023	CEA	MCC-MOM	OPR-WTO	With JW, Headworks and Plant drain pumps stations checks. Resumed BIO1 transfer to plant drain.
03/20/2023	KTV	MCC-MOM	PRG-PLC	Finished copying alarm bypass logic and assigning all tags.
03/20/2023	EJT	MCC-MOM	OPR-WTO	Monitoring SCADA, and reviewing Google shared drive.
03/20/2023	GXK	MCC-MOM	OPR-WTO	Responded to alarm dialer call reporting active ch.2 alarm conditions. Found the cause for the alarm to be faulted ME2310. Inspected the fine screen at headworks. Silenced the audible alarm fault. Rotated ME2310 out of service and rotated ME2320 into service. Inspected ME2310. Run it in manually and detected no issues. I will keep it out of service for the rest of the night since heavy rain is expected. Started to increase the A ratio in preparation for the rain.
03/20/2023	KTV	MCC-MOM	OPR-WTO	Zone 2 alarm - rotary drum screen lineup selection error. Contacted GXK and confirmed that he is onsite rotating screens which caused the alarm. Briefly discussed screen issues and operation with GXK.
03/21/2023	CEA	MCC-MOM	OPR-WTO	Plant check, reviewing process trends, Headworks operations, and UV performance. Bluff and Legacy park pumping stations, and IW2 checks.
03/21/2023	KTV	MCC-MOM	OPR-WTO	SCADA and trend review okay. EQT level is as low as possible while the rain is starting. Note that system flow is already at 111 gpm, so plan to run the system at 137 gpm once EQ level is around 4 feet with the goal of maintaining EQT level at 4 feet for as long as possible. Heavy rain is forecasted to last all day today followed by lighter rain all day tomorrow.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/21/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA, process, compliance overview, historical trending, plant walk HP system, chemical room, backwash tank, MBR 1/2, electrical room 3000/4000, Bio train1/2, UV station, upper/lower distribution pump's, EFF/INF compositor, EQT, INF pump station, PDPS, MBT, electrical room 2000/7000, order control bed's, percolation ponds, Headworks, empty compactor/course screen trash, sprayed inside rotary drum 1/2.
03/21/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data. Plant walk, inspected chemical storage, odor control, UV system, upper blower rooms, MBT, headworks, and electrical rooms.
03/21/2023	CEA	MCC-MOM	CMT-GLB	Clean and swap cuvette, perform zero calibration, Eff quality analysis check, and verify reading 60.2% vs lab hach 60.8%.
03/21/2023	KTV	MCC-MOM	PRG-PLC	Set up basic tags and UI for PLC4 alarm lists on the alarm dialer screen. Started updating alarm logic for PLC4. Enabled and tested PLC4 alarm bypass logic.
03/21/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/21/2023	CEA	MCC-MOM	OPR-WTO	UV cleaning was completed, put all trains in service and increased production A ratio 1.50. Monitoring plant processes during heavy rain.
03/21/2023	DFH	MCC-MOM	OPR-WTO	Inventory management.
03/21/2023	KTV	MCC-MOM	PRG-PLC	Started assigning PLC4 alarms to list 0.
03/21/2023	EJT	MCC-MOM	OPR-WTO	Monitoring SCADA, and reviewing Google drive.
03/21/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Adjusted the P8130 multiplier throughout the day adjusting for chlorine residual and flows. Adjusted A ratio. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
03/21/2023	DFH	MCC-MOM	SAM-WTO	Prepped filter for MLSS analysis. Collected Weekly A EFF sample and MLSS sample from BIO2. Started MLSS analysis.
03/21/2023	EJT	MCC-MOM	SAM-WTO	Collection of weekly process sample, iced and delivered to pat-chem lock box with COC's.
03/21/2023	CEA	MCC-MOM	OPR-WTO	Continue monitoring plant processes during heavy rain, With GXK discussed MBR production adjustments and UVT performance.
03/21/2023	KTV	MCC-MOM	PRG-PLC	Continued PLC4 alarms list 0.
03/21/2023	DFH	MCC-MOM	SAM-WTO	Completed MLSS analysis. Collected permeate sample and tested for NH3, NO2, NO3, Alk, and Cl2.
03/21/2023	GXK	MCC-MOM	ENG-DSN	Researched for materials to build weatherproof shelters for equipment around the plant. I was researching UV-resistant plastics and how to glue/weld them together.
03/21/2023	EJT	MCC-MOM	SAM-WTO	Collection of daily EFF sample, calibration of pH/EC prob, conducted analysis and recorded pH/Temp on COC, iced samples and placed in Pat-chem lock box.
03/21/2023	EJT	MCC-MOM	OPR-WTO	Monitoring SCADA system UVT has been consistent at 61%, reviewing Google drive site drawings updating samples sign sheet, with Daniel cleaning suction hose on the vactor.
03/21/2023	DFH	MCC-MOM	PMT-INT	Completed equipment calibrations.
03/21/2023	KTV	MCC-MOM	PRG-PLC	Finished PLC4 alarms list 0.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/21/2023	DFH	MCC-MOM	GMT-AUT	Trained EJT on Vactor and cleaned.
03/21/2023	EJT	MCC-MOM	GEN-ADM	Reviewing/submitting daily Time entry.
03/22/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks, review process trends, and mcc_data. Bluff and legacy park pumping stations, and IW2 checks.
03/22/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, MLSS analysis, reviewing SCADA system process, historical trending, compliance overview, plant walk-HP system, odor control beds, chemical room, MBR 1/2, backwash tank, electrical room 3000/4000, Bio train1/2, low/upper distribution pump's, UV station, EFF compositor, EQT, INF pump station, PDPS, MBT, INF compositor, electrical room 2000/7000, Headworks, empty compactor/course screen trash, sprayed inside rotary drum 1/2, odor control bed's, percolation ponds. Monitoring SCADA system,
03/22/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, compliance review, and logbook review. Caught up on time logs, created missing PO, and reviewed PO's. UVT is steadily improving, BIO1 is at 6.4 feet, so we seem to be in a pretty good place in regards to storage for rain. Completed COC paperwork, dropped off sample into dropbox.
03/22/2023	KTV	MCC-MOM	PRG-PLC	Continued PLC4 alarms list 1.
03/22/2023	MAA	MCC-MOM	OPR-WTO	Reviewed logbook, SCADA and trends. Completed safety training module.
03/22/2023	JRW	MCC-MOM	OPR-WTO	Organized all previous COC's on table. After this plant walkthrough, inspected headworks, MBT's, BIO1, BIO2, blower room, electrical room (2000, 3000, 4000, & 7000), upper & lower distribution, and UV system. Also cleaned up spilled ML in Honda Pilot, vacuumed with wet vac then wiped down with disinfecting wipes.
03/22/2023	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs.
03/22/2023	MAA	MCC-MOM	GMT-AUT	Updated Vehicles and Drivers sheet.
03/22/2023	CEA	MCC-MOM	OPR-WTO	MBT process check found some of the diffusers plugged up. Disabled B-72X0 and flushed diffusers, removed loto, and enabled aeration process.
03/22/2023	EJT	MCC-MOM	OPR-WTO	Reviewing historical trending,water balance, quality, MBT, levels,
03/22/2023	DFH	MCC-MOM	GMT-DIG	Updating DigAlert on maps and google drive. Added new DigAlerts and verified no conflicts on B230760705 and B230750355.
03/22/2023	CEA	MCC-MOM	CMT-GLB	GXK reported fine screen failure; Conduct and inspection, adjusted gears and stabilizer wheels inspect trunnion wheels - normal, check gearbox oil level- normal. Manually ran no issues encountered. Put the unit back in service.
03/22/2023	EJT	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/22/2023	KTV	MCC-MOM	PRG-PLC	Finished PLC4 alarms list 1 - PLC4 list is now complete.
03/22/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
03/22/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/22/2023	MAA	MCC-MOM	SAM-WTO	Collected daily EFF sample and weekly INF and EFF-A samples. Iced and stored. Washed down composite containers and updated sample log.
03/22/2023	JRW	MCC-MOM	OPR-GLB	Packed up CSE equipment for MCP CSE per CEA.

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2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/22/2023	DFH	MCC-MOM	GMT-DIG	Updated DigAlert for A230690354 and A230690354.
03/22/2023	EJT	MCC-MOM	GMT-AUT	Jeffy lube work truck oil change.
03/22/2023	JRW	MCC-MOM	OPR-WTO	Returned CSE equipment to container, also worked on truck housekeeping.
03/22/2023	DFH	MCC-MOM	OPR-WTO	Updated google maps collections, MH, distribution, and laterals. Added and updated maintenance layer.
03/22/2023	MAA	MCC-MOM	GMT-AUT	Researched maintenance via HAAKER website for Vactor truck. Sent inquiry for details regarding setting up planned maintenance for Vactor.
03/22/2023	EJT	MCC-MOM	PMT-GLB	Hauled 15,000 gallons from Solids Storage Tank.
03/22/2023	KTV	MCC-MOM	PRG-PLC	Set up and tested PLC5 alarm bypass logic.
03/22/2023	EJT	MCC-MOM	GMT-AUT	Cleaned inside vactor tank.
03/22/2023	JRW	MCC-MOM	OPR-WTO	After this reviewed new sampling bottle inventory & compared to PCL bottle sheet. It seems we only received around half of the sampling bottles today. Cut & flattened all cardboard boxes received from sampling bottles for trash. Then worked on safety courses.
03/22/2023	MAA	MCC-MOM	CMT-ELT	BFV-3204; set "manual/auto" pull lever into "Auto" and tested valve with power; ok. There is a faint "knocking" sound when and after travel so further investigation required. Left Valve powered on. KTV notified valves 3104 and 3204 do not operate when powered. Troubleshooting BFV-3104. Checked for proper voltage from CB to valve; ok. When testing, motor is heard moving but valve shaft does not turn, possibility that inner gears are detached. Removed MOV cover and inspected motor, gears, and retested. Motor does turn but gears and valve shaft do not. Inspected "manual" pull lever; valve is stuck in "manual" mode which prevents it from moving when powered. Tested and verified pull lever back to "Auto". Valve opens to 40% as it was set when originally programmed. With KTV, tested at 80%, verified MOV travel. Left Valve powered on.
03/22/2023	JAA	MCC-MOM	CMT-ELT	Assisting MAA testing functionality of the butterfly valve. Assist MAA troubleshooting and test butterfly valve.
03/22/2023	DFH	MCC-MOM	OPR-WTO	Continued updating google maps maintenance layer.
03/22/2023	EJT	MCC-MOM	GEN-ADM	Reviewing and submitting daily Time entry, and PO's.
03/22/2023	KTV	MCC-MOM	PRG-PLC	Assisted MAA testing PFV-3104 and BFV-3204 command from PLC3. Continued PLC5 alarm bypass and list configuration.
03/22/2023	GXK	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/22/2023	RRV	MCC-MOM	OPR-WTO	2316 Alarm: Zone 4 - Membrane Alarm according to dialer, but no active membrane alarms on review. There were several Membrane Air Flow Anomaly alarms recorded in the alarm history at the time of the alarm call though, so that's probably the cause. In each case, the anomaly was briefly higher than expected air flow of about 210 scfm, vs. typical leap high flow of 200 to 210 scfm. It's not a problem that requires immediate resolution, so it can be checked out in the morning.
03/23/2023	CEA	MCC-MOM	OPR-WTO	Plant check, review of last night's alarms related to membrane air flow anomaly, check membrane air supply process trends, and B-46X0 performance- all normal. Bluff and Legacy park pumping stations, and IW2 checks.
03/23/2023	KTV	MCC-MOM	PRG-PLC	Realized that the original PLC5 comms are INTs instead of DINTs, so created new comms logic and tags for DINTs since the alarms integration is based on DINTs. Started PLC5 alarms list 0. Prepared for P-1250 communications card installation, and BFV-3X04 programming.

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2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/23/2023	CEA	MCC-MOM	CMT-GLB	Clean and swap cuvettes, perform zero calibration, Eff quality analysis check, and verify reading 61.2% vs lab hach 60.8%.
03/23/2023	JRW	MCC-MOM	OPR-WTO	SCADA systems check, compliance review, & logbook review.
03/23/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA system, process, historical trending, compliance overview, quality, levels, plant walk - HP system, order control bed's, chemical room, MBR/backwash tank, electrical room 3000/4000, Bio train1/2, lower/upper distribution pump's, UV station, EFF compositor, EQT, INF pump station, PDPS, MBT, INF compositor, electrical room 2000/7000, Headworks -
03/23/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data.
03/23/2023	MAA	MCC-MOM	OPR-WTO	Log review and SCADA checks. Reviewed FIT 3104 and FIT 3204 trends before and after powering up BFV's 3104 and 3204; Slight increase in scfm on BIO1, BIO2 remained between 175 and 180 scfm.
03/23/2023	DFH	MCC-MOM	CMT-ELT	With KTV, MAA, and EJT. Reviewed P-1250 operations with EQ smoothing. KTV disabled EQ smoothing, took P-1250 offline, and placed P-1220 in auto while we work on P-1250 VFD. With MAA and EJT, Opened breaker to P-1250 and verified dead inside panel. Installed new comm card in VFD and rewired. Researched VFD settings to change IP, operation command, and frequency command.
03/23/2023	MAA	MCC-MOM	CMT-ELT	With DFH and EJT: LOTO P-1250. Installed Comm card on G4 VFD and verified IP address and set frequency control to Comm card. Notified KTV.
03/23/2023	EJT	MCC-MOM	CMT-INT	with Daniel/Mario, Installation of Com-card and Ethernet cable.
03/23/2023	KTV	MCC-MOM	PRG-PLC	Supervised MAA and DFH installation of P-1250 ethernet communications card. Verified connection to PLC once they confirmed proper communications between the VFD and switch. Updated P-1250 program to control run/stop, reset and speed command through the VFD, and updated speed feedback to reference the VFD so that the proper speed feedback displays on SCADA. Tested all changes are functional. The VFD can now be reset remotely by putting the HOA in the OFF position.
03/23/2023	DFH	MCC-MOM	CMT-ELT	With MAA and EJT, continued diagnosing network issue as KTV and MAA are unable to detect the comm card on the network. Tested ethernet cable which shows a short. Remade RJ45 connectors and MAA verified IP settings on VFD which appeared to have reverted or were not accepted the first time. Tested connection and verified with KTV. Monitored VFD performance locally as KTV remotely controls. Cleaned up worksite.
03/23/2023	JRW	MCC-MOM	OPR-WTO	With EJT, worked on spraying down drum screens, emptying solids, and then cleaning up sand/dirt from area around PDPs drain. Used dry vac to clean.
03/23/2023	MAA	MCC-MOM	CMT-ELT	KTV notified that pump was not available on logic and unable to ping. Troubleshooting ethernet cabling; tester indicated short on a few pairs. Replaced ends and verified correct color configuration. Re-tested ethernet cable; ok. Rechecked IP address; last octet remained at .10 instead of .121, so made change and verified. Tested by pinging via my PC; ok. Notified KTV; tested remotely; ok.
03/23/2023	EJT	MCC-MOM	OPR-WTO	Empty compactor/course screen trash, sprayed inside rotary drum 1/2, cleaned rocks and dirt drive area.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/23/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
03/23/2023	EJT	MCC-MOM	CMT-INT	With Daniel/Mario, Resetting Ethernet cable.
03/23/2023	MAA	MCC-MOM	OPR-GLB	Discussed and looked up materials for welder with GXK.
03/23/2023	KTV	MCC-MOM	PRG-PLC	Updated communications between PLC5 and PLC6 for DINT alarm words and tested comms are functional. Started PLC5 alarms list 0.
03/23/2023	EJT	MCC-MOM	SAM-WTO	Collection of daily EFF sample, calibration of pH/EC prob, ran analysis recorded pH/Temp on COC iced and stored in Pat-chem lock box, updated sample sign sheet and process log.
03/23/2023	DFH	MCC-MOM	OPR-WTO	Received message from KTV to research and request quote for MX-3130 cable gland. Searched for mixer inventory and reviewed parts list with MAA. Found spare o-rings but no seal sleeves. Removed cable gland, verified parts, and MAA will send quote request to vendor.
03/23/2023	JRW	MCC-MOM	GMT-HSK	Worked on housekeeping for zone 3000/4000 & also cleaned up truck.
03/23/2023	MAA	MCC-MOM	OPR-GLB	With DFH; looked up existing inventory and parts for MX-3130 cable gland. Verified what is on hand and what is needed; placed quote request with Flygt.
03/23/2023	EJT	MCC-MOM	OPR-WTO	Monitoring SCADA
03/23/2023	EJT	MCC-MOM	OPR-WTO	Monitoring SCADA system process, historical trending, UV station, reviewing site layout Google drive.
03/23/2023	DFH	MCC-MOM	OPR-WTO	Inventory management.
03/23/2023	KTV	MCC-MOM	PRG-PLC	Finished PLC5 alarms lists 0 and 1.
03/23/2023	MAA	MCC-MOM	GEN-ADM	Continued equipment maintenance updates.
03/23/2023	JRW	MCC-MOM	OPR-WTO	Plant walk-through. Continuation of housekeeping. Discussion with GXK & MAA regarding welding.
03/23/2023	EJT	MCC-MOM	GMT-HSK	Empty trash and pulled weeds from odor control bed's.
03/23/2023	DFH	MCC-MOM	GMT-AUT	Truck maintenance.
03/23/2023	EJT	MCC-MOM	OPR-WTO	Reviewed daily Time entry, and ordered Hannah supplies
03/23/2023	KTV	MCC-MOM	PRG-PLC	Finished PLC5 alarm list 2.
03/24/2023	CEA	MCC-MOM	OPR-WTO	Plant check. Bluff and Legacy park pumping stations and IW2 checks.
03/24/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/24/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/24/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/24/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data. Review SC-23XX I/O with MAA and sourced possible PLC replacements. Measured tank innage to start transferring from storage tank back to Plant drain.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/24/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA system, process, historical trending, compliance overview, level, water balance, quality, plant walk -hp system, odor control beds, chemical room, MBR 1/2, backwash tank, electrical room 3000/4000, Bio train1/2, Lowe/upper distribution pump's, UV station, EFF compositor, EQT, INF pump station, PDPS, MBT, electrical room 2000/7000, INF compositor, Headworks - emptied course screen/compactor trash, sprayed inside rotary drum 1/2.
03/24/2023	MAA	MCC-MOM	OPR-WTO	SCADA checks. Reviewed SC-2310 I/O and looked up possible Click PLC's to replace existing controllers. Measured old EQ outage and began transferring via sump pump.
03/24/2023	CEA	MCC-MOM	SAM-WTO	Conduct Eff quality analysis of turbidity and UVT. Calibrating handheld turbidity meter, lab housekeeping.
03/24/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/24/2023	DFH	MCC-MOM	OPR-WTO	With MAA, LOTO SC-2310 and began accessing LCP. Began mapping wiring using schematic and locating relays, fault inputs, and reset button inputs.
03/24/2023	MAA	MCC-MOM	OPR-WTO	LOTO SC-2310: Opened up LCP, verified voltage of existing controller inputs. With drawings; traced and confirmed PB2 reset wiring.
03/24/2023	EJT	MCC-MOM	SAM-WTO	Collection of daily EFF sample, pH/EC analysis recorded on COC, iced and delivered sample to pat-chem lock box, updated sample sign sheet and process log.
03/24/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reduced P8130 multiplier to 0.04 due to high chlorine residual. Cleared alarms. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
03/24/2023	DFH	MCC-MOM	OPR-WTO	Continued wire mapping SC-2310 in LCP. With KTV, MAA, and EJT, confirmed wiring findings and reviewed where to install DPDT ice cube relay. Will need to verify in IPC storage of necessary parts.
03/24/2023	MAA	MCC-MOM	OPR-WTO	Continued mapping wiring at SC-2310 LCP. Discussed current wiring with KTV, DFH and EJT. Plan is to install BRX PLC but will need to install additional ice cube relays to allow for remote reset of SC-2310 VFD. Will need to identify where to intercept hots for each relay.
03/24/2023	EJT	MCC-MOM	OPR-WTO	With Daniel and Mario, identifying PLC wiring on rotary drum 1,
03/24/2023	KTV	MCC-MOM	PRG-PLC	Investigated causes of MBR air flow alarms and UV3 running constantly at 100%. Tested disabling low UVT alarm for UV3, but still wasn't able to reset the condition. Unsure why the problem exists when UV1 and 2 don't have the same latched low UVT condition. MBR air flow alarms appear to be related to the lead/lag logic swap running both blowers for 5 minutes instead of 5 seconds (this is the setpoint on the HMI). Reviewed logic but was unable to determine why the swap would take longer than 5 seconds. Will have to monitor a swap live. Didn't see a time indication in the logic, but will be able to identify swap times from alarms over the weekend.
03/24/2023	DFH	MCC-MOM	OPR-WTO	With MAA, reviewed in SC-2310 where the ice cube relay would be installed and how it would intercept the other wires. Began reinstalling LCP panel and removed LOTO.
03/24/2023	EJT	MCC-MOM	OPR-WTO	Continuing identification of PLC configuration for remote access allowing system reset of rotary drums.
03/24/2023	MAA	MCC-MOM	OPR-WTO	Took measurements of existing ice cube relays at SC-2310, there is enough space at LCP-2310 for an additional 2. DFH will check inventory for stock. Re-sealed LCP and removed LOTO.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/24/2023	KTV	MCC-MOM	OPR-WTO	Zone 4 alarm - MBR air flow anomaly. Acknowledged alarm and verified email receipt.
03/25/2023	CEA	MCC-MOM	OPR-WTO	Plant check, and review last night's alarm, no corrective action is necessary. Bluff and Legacy parks pumping stations, and IW2 checks.
03/25/2023	KTV	MCC-MOM	OPR-WTO	Zone 4 alarm - MBR air flow anomaly. Acknowledged alarm and verified email receipt. Plan to monitor the swap Monday at 1100 since the change appears to happen every 12 hours at 1100 and 2300. For now, permanently disabled the alarm.
03/26/2023	EDM	MCC-MOM	SAM-WTO	Calibrated pH / EC.
03/26/2023	CEA	MCC-MOM	OPR-WTO	Plant process checks. BIO2 low DO concentration increased B-35X0 pressure from 6.6 to 6.7 psig. Bluff and legacy parks pumping stations, and IW2 operations checks.
03/26/2023	EDM	MCC-MOM	SAM-WTO	Collected daily EFF samples and prepared sample paperwork for lab pick-up. pH @ 7.55
03/27/2023	CEA	MCC-MOM	OPR-WTO	Plant check. Bluff and Legacy park pumping station, and IW2 checks.
03/27/2023	DFH	MCC-MOM	OPR-WTO	Updated DigAlerts. Plant operations check, review level, trends, log and lab sampling data. Plant walk, inspected chemical storage, odor control, UV system, upper blower rooms, MBT, headworks, and electrical rooms. Inspected all PLCs, and I/O cards for later list. Inspected SC-2320, removed trash, and sprayed down drum of debris. Started transferring from old storage tank to PD and removed pump from BIO1.
03/27/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA system, process, historical trending, compliance overview,
03/27/2023	KTV	MCC-MOM	PRG-PLC	Updated PLC5 alarms to include remote Click PLC communications.
03/27/2023	KTV	MCC-MOM	PRG-PLC	Updated PLC4 telltale logic to be latching. Added PAT level control to SCADA and updated vortex manual valves alarms.
03/27/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Adjusted process parameters. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Clean up lab.
03/27/2023	DFH	MCC-MOM	OPR-WTO	Put away transfer pump that was BIO1 and its associated hoses. Monitored storage tank pump and level. Started inventory list and research on PLC's and I/O cards.
03/27/2023	KTV	MCC-MOM	PRG-PLC	Observed MBR blower lead/lag swap. Still unsure why it takes so long for the swap to happen, but was able to discover more related timers, so there appears to be some sort of cascade happening. For now, wrote logic to suppress the alarm during lead/lag swapping. Investigated LCP-41 and 42 panel intrusion alarms and determined that they are NC, so rewrote the logic to reflect that and enabled the alarms.
03/27/2023	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested permeate sample for pH, EC, NH3, NO2, NO3, Alk, and Cl2.
03/27/2023	CEA	MCC-MOM	CMT-GLB	Inspection of MBT process: Shut down the aeration process and hang LOTO. Flushed and cleared blockage air diffusers.
03/27/2023	DFH	MCC-MOM	CMT-GLB	Started replacing cores in OPS, main electrical room, and upper blower room. Cleaned and tested door operation.
03/27/2023	CEA	MCC-MOM	CMT-GLB	VFD in fault "Low at decel": Inspect B-7220 blower - okay, reset VFD fault and restart- normal. Monitoring FIT- 7240 airflow -normal. Inspection of B-72X0: cleaned air filter, check V-belts, and oil levels - all normal.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/27/2023	DFH	MCC-MOM	CMT-GLB	Continued changing cores and cylinders to OPS electrical room, headworks, lower electrical room, and MBT blower room.
03/27/2023	CEA	MCC-MOM	CMT-GLB	CP-6X00: Manually ran the compressors, and exercise valves.
03/27/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/28/2023	DFH	MCC-MOM	GMT-DIG	DigAlert B230030236 and A230690354.
03/28/2023	KTV	MCC-MOM	PRG-SDA	Updated Bio-Reactors screens with positionable air flow valves and changed Post Anoxic Tank 2 level control from start/stop to stop only. Start level is derived in the program from the stop level to prevent irrational setpoints. Updated MOV-3104 and MOV-3204 controls so they can be adjusted from SCADA in HAND.
03/28/2023	JAA	MCC-MOM	OPR-WTO	Review SCADA and trends. Walk through the plant for visuals checks.
03/28/2023	DFH	MCC-MOM	CMT-GLB	Noticed Irrigation zone C-14 dumping a lot of water ono the pavement. Inspected area and found sprinkler broken at top threaded nut. Shut off system to C-14 and searched MCC storage for replacement and found similar one. Researched difference between two which seems to be only a check valve. Replaced sprinkler, tested arc, water discharge, and adjusted accordingly.
03/28/2023	JAA	MCC-MOM	OPR-WTO	Continue analyzing trend to get more familiarity how the process is working.
03/28/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
03/28/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data. Plant walk, inspected chemical storage, odor control, UV system, upper blower rooms, MBT, headworks, and electrical rooms.
03/28/2023	KTV	MCC-MOM	PRG-PLC	Discussed high MBR air flow issue with GXK. Still unable to diagnose the actual reason why lead/lag swapping is taking longer than 5 seconds. Attempted to shift the lead/lag swap so it won't happen at the same time as the leap aeration - this shift didn't work, so further investigation is required. Modified the logic to again try and prevent the alarm during normal lead/lag rotation. Observed another lead/lag swap and this appears that it will work.
03/28/2023	DFH	MCC-MOM	SAM-WTO	Collect daily EFF, Weekly EFF A, and Process sample and tested permeate sample for pH and EC. Collected ML sample from BIO2 and MBT for MLSS analysis.
03/28/2023	JAA	MCC-MOM	GMT-AUT	Clean truck and perform maintenance to the tools.
03/28/2023	DFH	MCC-MOM	SAM-WTO	Started MLSS analysis of BIO2 and MBT.
03/28/2023	DFH	MCC-MOM	OPR-WTO	Completed MLSS analysis of MBT and BIO2. Updated AA-3253 and AA-7001 factor.
03/28/2023	JAA	MCC-MOM	GMT-AUT	Clean and wash the vactor.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/29/2023	RRV	MCC-MOM	OPR-WTO	0221 Alarm: PDPS Excessive 15-Minute Level Increase. Alarm is due to rain input to PDPS. Bypassed alarm on time and monitored status to ensure no adverse impact. EQ Tank level increased 1.25 feet (8,000 gallons) in 90 minutes due to rain, for a period average of 90 gpm when normally there would be practically no flow. Trend review indicates the PDPS and the IPS are pumping in concert, indicating substantial rain input to LPPS as well as the PDPS. The weather forecast indicates rain will stop around 0700 hrs, but return in the evening and last overnight again, and that rain will be harder and last longer than this one. The EQ smoothing program is working well in response to the increased flow, so no change is currently required. Please expend efforts at maximizing available storage today in preparation for the expected rain event tonight.
03/29/2023	CEA	MCC-MOM	OPR-WTO	Plant status check EQT level at 7.4 feet and quickly increasing in heavy rainy conditions, enabled P-1210 and resumed transferring to BIO1, monitoring closely EQT and BIO1 levels. Bluf and Legacy park pumping stations, and IW2 checks.
03/29/2023	JAA	MCC-MOM	OPR-WTO	Read the logbook, review SCADA and trends.
03/29/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data. Inspected MH-B6 and sent video of current status to RRV. Inspected lower gate area around call box and noticed the earth is giving away around gate and callbox. Will need to pick up sandbags to divert water away from area to prevent further damage.
03/29/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA system, process, historical trending, compliance overview,
03/29/2023	JAA	MCC-MOM	CMT-GLB	Assisting DHF to fill and place sand bags down the road by the lower call gate box.
03/29/2023	CEA	MCC-MOM	CMT-GLB	Setting up the transfer pump in BIO1 and resuming transfer to the emergency storage tank.
03/29/2023	DFH	MCC-MOM	CMT-GLB	Picked up empty burlap sandbags from supply store to divert water away from lower gate call box. With JAA, filled sandbags and placed down the road of the lower gate call box.
03/29/2023	JAA	MCC-MOM	CMT-GLB	Assist CEA to set up the transfer pump at BIO1 to the emergency storage tank.
03/29/2023	CEA	MCC-MOM	OPR-WTO	Headworks and MBT process checks.
03/29/2023	JAA	MCC-MOM	CMT-GLB	With CEA replacing motor belts, and adjusting position of the motor.
03/29/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reduced P8130 multiplier to 0.04 due to high chlorine residual. Decreased pre-chlorination SP from 5 to 4 mg/L due to improved UVT. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
03/29/2023	CEA	MCC-MOM	CMT-GLB	Replace motor 2 v-belts, lined up sheaves and adjusted the position of the motor.
03/29/2023	KTV	MCC-MOM	PRG-PLC	Noticed PLC5 alarms aren't dialing out - investigated and corrected the issue (alarm dial out was referencing the wrong alarm words). Further investigation of MBR high air flow alarms since I received another alarm overnight despite the most recent change.
03/29/2023	EJT	MCC-MOM	SAM-GLB	Collection of weekly EFF B, weekly INF, daily EFF, calibration of pH/EC prob conducted analysis of daily EFF sample, recorded pH/Temp on COC, updated sample sign sheet, process log, iced and stored samples in IPC North lock box for pat-chem pick up, cleaning of INF/EFF compositors.
03/29/2023	JAA	MCC-MOM	GMT-AUT	Assist MAA pulling truck out of the mud.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/29/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/29/2023	KTV	MCC-MOM	PRG-PLC	Decided to try shifting MBR blower rotation using the rotation delay setpoint, but it was unsuccessful. This indicates the rotation is coming from outside the AOI, so further investigation is needed to correct.
03/29/2023	EJT	MCC-MOM	GEN-ADM	Training with Daniel on downloading receipt for PO'S. Also setting up a USA blue book account.
03/29/2023	DFH	MCC-MOM	OPR-WTO	Assisted EJT with ordering supplies. Assisted CEA loading equipment into service truck.
03/29/2023	CEA	MCC-MOM	OPR-WTO	Monitoring plant process, EQT levels, MBR, and UV performance.
03/29/2023	CEA	MCC-MOM	CMT-GLB	BIO1- disabled transfer pump, pick up hoses.
03/29/2023	EJT	MCC-MOM	GEN-ADM	Reviewing/submitting daily Time entry.
03/29/2023	DFH	MCC-MOM	OPR-WTO	Stored spare Seepex pump into MCC storage area.
03/29/2023	MAA	MCC-MOM	GMT-HSK	Placed Seepex pump back to storage. Organized and marked laundry.
03/29/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Prepared the plant for an expected overnight rain storm.
03/29/2023	GXK	MCC-MOM	OPR-WTO	Rain started. Logged in remotely. Checked plant functions OK. Inspected trends are normal. Increased A ratio to 1.2.
03/29/2023	GXK	MCC-MOM	OPR-WTO	Rain started. Logged in remotely. Checked plant functions OK. Inspected trends are normal. Increased A ratio to 1.8 bringing the plant production up to 152 GPM.
03/30/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA system, process, historical trending, compliance overview, I noticed we are in offspec at the moment, plant walk- HP system, odor control bed's, chemical room, MBR, backwash tank, electrical room 3000/4000, biology train 1/2, lower/upper distribution pump's, UV station, EFF/ INF compositor, EQT, INF pump station, PDPS, MBT, electrical room 2000/7000, Headworks- sprayed inside rotary drum 1/2, empty compactor/course screen trash.
03/30/2023	JAA	MCC-MOM	OPR-WTO	Read logbook, review SCADA and trends. Walk through the plant for visuals checks.
03/30/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data with EJT. Plant walk, inspected chemical storage, odor control, UV system, upper blower rooms, MBT, headworks, and electrical rooms.
03/30/2023	DFH	MCC-MOM	GMT-HSK	General Housekeeping.
03/30/2023	JAA	MCC-MOM	GMT-HSK	General housekeeping at the Lab and the bathroom.
03/30/2023	EJT	MCC-MOM	GMT-JAN	Cleaning laboratory,
03/30/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Reduced A ratio from 1.8 to 0.8. Increased P8130 multiplier from 0.06 to 0.1 due to low residual chlorine. Play with the new BIO aeration control valves and increased the airflow to BIO2 from 162 to 172 SCFM. Increased P3211 from 97 to 100% due to low ORP. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
03/30/2023	EJT	MCC-MOM	OPR-WTO	System checks,
03/30/2023	DFH	MCC-MOM	GMT-DIG	DigAlert update on map and verified A230890173 no conflict.
03/30/2023	EJT	MCC-MOM	SAM-GLB	Collection of daily EFF sample, calibration of pH/EC prob, conducted analysis and recorded on COC, updated sample sign sheet, process log, delivered sample to IPC North lock box for pat-chem pick.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/30/2023	GXK	MCC-MOM	OPR-WTO	Asked DFH to perform IW2 backwash clean. Monitored the MBR2 acid clean cycle. Following the IW2 responded to high-level and high-inflow alarms. Following the MBR2 cleaning responded to drop in UVT. Manually cycled the off-spec valve for 30 minutes to flush out the post-acid clean low UVT effluent. I also restarted the Alum pump at 100% speed. Increased A ratio from 0.8 to 1, bringing the production flow to 150 GPM and forcing both membranes into operation.
03/30/2023	DFH	MCC-MOM	OPR-WTO	Inventory management.
03/30/2023	EJT	MCC-MOM	OPR-WTO	Reviewing and submitted daily Time entry.
03/31/2023	CEA	MCC-MOM	OPR-WTO	Plant operations checks. Bluff and Legacy parks pumping stations, and IW2 checks.
03/31/2023	JAA	MCC-MOM	OPR-WTO	Review logs. Review SCADA and trends. Walk through the plant for visuals checks.
03/31/2023	EJT	MCC-MOM	OPR-WTO	Reviewed log book, sample sign sheet, process log, SCADA system, process, historical trending, compliance overview,
03/31/2023	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data.
03/31/2023	EJT	MCC-MOM	OPR-WTO	plant walk-HP system, order control bed's, chemical room, MBR, backwash tank, electrical room 3000/4000, Bio train1/2, lower/upper distribution pump's, UV station, EFF/INF compositor, EQT, IPS, PDPS, MBT, electrical room 2000/7000, Headworks - empty compactor/course screen trash, sprayed inside rotary drum 1/2,
03/31/2023	DFH	MCC-MOM	OPR-WTO	Reviewed DigAlerts and updated maps. Removed time-lapse camera from MH-B6, reviewed footage and uploaded to google drive. With KTV, reviewed making autocad drawing of enclosure and parts.
03/31/2023	JAA	MCC-MOM	OPR-GLB	Assisting CEA performing drums screen rotation and clean testing alarms fro headworks. Perform some housekeeping on headworks.
03/31/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/31/2023	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
03/31/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails. Reduced P8130 multiplier due to high chlorine residual. Increased it back to 0.05 once the residual level was back in the normal range. Verified MBT was back in service and pumps are primed. Reduced the MBT production timer from 50 to 30% run time due to low UVT. Alum doesn't seem to have any effect on the low UVT so I suspended the Alum pump. Reduced P-3211 speed from 100 to 90% to see how it will affect the low ORP in Pre-Anox 1. I detected no dramatic effect.
03/31/2023	CEA	MCC-MOM	OPR-WTO	Set up decant pump and resumed BIO1 transfer to PDPS. MBT solids storage tank running at normal operating level purged P-7320 and resumed filtration.
03/31/2023	DFH	MCC-MOM	CMT-GLB	Searched storage container for spare parts and found an enclosure, click plc, alarm dialer, power supply and wiring. Began removal of terminal blocks power supply and radio. Removed alarm dialer from its original storage enclosure to fit into new enclosure.

INTEGRATED PERFORMANCE CONSULTANTS

2023 Q1 MCC ONM Report

Period: 01/01/2023 - 03/31/2023

Date	Name	Job	Task	Notes
03/31/2023	KTV	MCC-MOM	GEN-ADM	Updated VM Ware and Factory Talk Activation manager on surface. Tested clone of my VM and it is functional although the clone is old and pre-activation - unable to activate windows due to digital license instead of product key license, so will have to make a new clone. Reconfigured my VM so that it uses a local account rather than my individual Microsoft account. Copied the clone to an external HDD and plan to install and test Monday.
03/31/2023	JAA	MCC-MOM	GMT-AUT	Testing battery of the service truck since few days ago when DHF was using the service truck the battery died. Test both batteries; batteries are good.
03/31/2023	JAA	MCC-MOM	GMT-HSK	Wash and do housekeeping at the chemicals room.
03/31/2023	DFH	MCC-MOM	CMT-ELT	Continued working on mounting alarm dialer into enclosure. Started wiring power supply and alarm dialer to PLC.
03/31/2023	DFH	MCC-MOM	CMT-ELT	Continued wiring enclosure. Reviewed electrical wire routing with GXK. Completed wiring PLC, power supply, breaker, convenience receptacle, and alarm dialer. Everything powers up and seems to be working. Connected to PLC, restored it to factory settings, and changed IP address at KTV's request. Left enclosure unplugged for now.
03/31/2023	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Cleaned and zero-calibrated the UVT analyzer. No improvement in UVT. It is still low at 58.5%T.



Malibu Civic Center Wastewater Treatment Facility

First Quarter 2023 Long-Term Groundwater and Surface Water Monitoring Report

prepared by

Rincon Consultants, Inc.

prepared for

City of Malibu
23825 Stuart Ranch Road
Malibu, California 90265

April 30, 2023

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April 21, 2023
Project No: 20-09665

Yolanda Bundy
Environmental Sustainability Department Director
Building Official
City of Malibu
23825 Stuart Ranch Road
Malibu, California 90265

Subject: First Quarter 2023 Long-Term Groundwater and Surface Water Monitoring Report, Malibu Civic Center Wastewater Treatment Facility – City of Malibu, California

Dear Ms. Bundy:

Rincon Consultants, Inc. has prepared the First Quarter 2023 Long-Term Groundwater and Surface Water Monitoring Report for the Malibu Civic Center Wastewater Treatment Facility (CCWTF) located in Malibu, California. The CCWTF began discharging treated wastewater in the third quarter of 2018. Therefore, Long-Term Monitoring of Groundwater and Surface Water Quality Monitoring (Task II) was triggered and quarterly groundwater monitoring was initiated.

The objective of the work program is to implement and manage a basin-wide groundwater and surface water monitoring and reporting program. The monitoring program has been designed to identify potential impacts due to land disposal of treated wastewater via injection and landscape irrigation or percolation on the receiving water quality of the local groundwater aquifers, Santa Monica Bay, Malibu Creek, and Malibu Lagoon.

Please contact us with any questions you may have regarding the results of the First Quarter 2023 Long-Term Groundwater and Surface Water Monitoring Report.

Sincerely,
Rincon Consultants, Inc.

This document has been digitally signed by Kiernan Brtalik, CPSWQ, QSP/D on 1/16/2023.

Kiernan Brtalik, CPSWQ, QSP/D
Director, Watershed Sciences



This document has been digitally signed and sealed by Torin Snyder, PG, CHG, TOR, QSD/P on 1/16/2023.

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Principal

Certification

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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 a fine and imprisonment."

Executed on the 25 day of April at Malibu, CA

Yolanda Bundy
Signature

Environmental Sustainability Director/ Building Official
Title

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1 Introduction

This report presents the results of groundwater and surface water monitoring activities conducted during the first quarter of 2023 for the Malibu Civic Center Wastewater Treatment Facility (CCWTF) located in Malibu, California (Figure 1). The CCWTF began discharging treated wastewater in the third quarter of 2018, triggering Long-Term Monitoring of Groundwater and Surface Water Quality Monitoring (Task II). The objective of the work program is to implement and manage a basin-wide groundwater and surface water monitoring and reporting program. The monitoring program has been designed to identify potential impacts resulting from land disposal of treated wastewater via injection and landscape irrigation or percolation on the receiving water quality of the local groundwater aquifers, Santa Monica Bay, Malibu Creek, and Malibu Lagoon.

This report was prepared by Rincon Consultants, Inc. (Rincon) and presents the geologic and hydrogeologic setting, groundwater elevations and gradient, surface water and groundwater sampling methodologies, and water quality data results.

2 Background

On-site wastewater disposal systems (OWDS) have allegedly contributed to the non-point source pollution of Malibu Creek and Lagoon located in the Civic Center Area of the City of Malibu (Figure 2). The City of Malibu designed and constructed a new wastewater treatment facility to comply with regulatory actions taken by the Los Angeles Regional Water Quality Control Board (LARWQCB) and the State Water Resources Control Board (SWRCB) to prohibit discharges from OWDS in the Civic Center area.

To establish baseline groundwater and surface water quality conditions prior to operation and discharge of treated wastewater, the LARWQCB required basin-wide, baseline groundwater and surface water monitoring. The water quality monitoring program was driven by several factors:

- Timelines established through regulatory action
- Proposed programs to fulfill anticipated future regulatory requirements associated with the development of the CCWTF
- The distribution of Recycled Water in the Prohibition area in conformance with California Code of Regulations, Title 22
- Protection of the Malibu Valley Groundwater Basin, Malibu Creek, Malibu Lagoon, and the near shore environment of Santa Monica Bay

Following activation of the CCWTF operations, baseline monitoring activities (Task I) were completed and long-term monitoring activities (Task II) were triggered. The objective of long-term monitoring is to identify impacts that land disposal of recycled water, via injection and landscape irrigation or percolation, may have on the water quality of the receiving groundwater aquifers, Santa Monica Bay, Malibu Creek, and Malibu Lagoon.

The basin-wide long-term monitoring program consists of four of the original five water quality monitoring tasks that occur in the Civic Center area of the City of Malibu. All five monitoring tasks were designed to provide a comprehensive basin-wide groundwater and surface water monitoring program. Below is a general description of each task.

Task I – Baseline Groundwater and Surface Water Quality Monitoring of the Civic Center Area *(Completed)*

The baseline groundwater and surface water quality monitoring task involved monitoring groundwater in nine shallow and deep groundwater wells and monitoring surface water quality at ten locations. The objective of this task was to develop baseline, ambient shallow and deep groundwater, and surface water conditions prior to the implementation of the CCWTF, as required by the Monitoring and Reporting Program (MRP) No. CI 10042, issued by the LARWQCB (LARWQCB 2015).

Task II – Long-Term Monitoring of Groundwater and Surface Water Quality Monitoring of the Civic Center Area

The long-term groundwater and surface water quality monitoring task involves monitoring groundwater in nine shallow and deep groundwater wells and surface water quality at 10 locations on a quarterly basis. Depending on quarterly flows of recycled water from the CCWTF to the percolation ponds, the number of samples collected for a given quarter may be reduced from nine to seven groundwater monitoring wells. This reduced number of groundwater monitoring wells is allowed when no more than 10 percent greater than the permitted flows are discharged to the percolation ponds.

The objective of long-term monitoring is to identify impacts, if any, that land disposal of recycled water, via injection and landscape irrigation or percolation, have on the water quality of the receiving groundwater aquifers, Santa Monica Bay, Malibu Creek, and Malibu Lagoon and to comply with the project-specific Waste Discharge Requirement (WDR). The mix of shallow and deeper monitoring wells were chosen to provide adequate spatial and vertical coverage of the basin near the CCWTF injection to monitor for potential adverse impacts. This sampling is required by the MRP No. CI 10042, issued by the LARWQCB (LARWQCB 2015).

Task III – Salt and Nutrient Management Plan Monitoring Program

The Salt and Nutrient Management Plan (SNMP) monitoring program builds upon the baseline and long-term groundwater and surface water monitoring programs described above (Tasks I and II). Task III involves performing semi-annual groundwater monitoring at 16 groundwater monitoring wells (both shallow and deep) located in the Civic Center area of the City of Malibu and in a small area in unincorporated Los Angeles County. The objective of the SNMP is to monitor potential impacts that recycled water, introduced through irrigation and injection, may have on the Malibu Groundwater Basin. The SNMP also provides data to assess the various phases of the CCWTF implementation as the collection system and treatment plant connections increase, and as OWDS-related discharges cease (RMC Water 2015a).

Task IV – Memorandum of Understanding Compliance Monitoring

Compliance with the Memorandum of Understanding (MOU) the City of Malibu has with the LARWQCB corresponds with baseline and long-term groundwater and surface water monitoring programs described in Tasks I through III above. Task IV involves performing semi-annual monitoring at fourteen groundwater wells located in the City of Malibu's Civic Center area. The objective of the MOU is to monitor for potential impacts to the Shallow Alluvium due to CCTWF implementation (LARWQCB 2014).

Task V – Civic Center Groundwater Elevation Monitoring Program

The groundwater elevation monitoring program assesses the groundwater elevations in the Malibu Groundwater Basin and in Winter Canyon. The objective of this task is to provide an understanding of the groundwater elevation conditions in the Civic Center Area, including elevation trends related to precipitation, tidal, and lagoon influences (LARWQCB 2015).

3 Geologic and Hydrogeologic Setting

3.1 Hydrology

The project is in the Los Angeles hydrologic region, as defined by the LARWQCB. The Los Angeles hydrologic region encompasses all coastal drainages flowing to the Pacific Ocean between Rincon Point and the eastern Los Angeles County line. The study area covers the Malibu Creek and Winter Canyon Creek watersheds. Most of the study area addressed in this report is located within the 109-square-mile Malibu Creek watershed, which is the second largest watershed draining to the Santa Monica Bay. The Malibu Creek watershed contains mostly undeveloped mountain areas, residential properties, and natural streams (LARWQCB 2011). Malibu Lagoon, a 13-acre brackish estuary, is located at the terminus of the Malibu Creek watershed and is one of only two remaining coastal marshes in Los Angeles County.

3.2 Geology

The study area is located within the Santa Monica Mountains in the northwestern corner of the Los Angeles basin. The study area lies at the juncture of the Peninsular Ranges geomorphic province, consisting of a northwest-oriented structural grain, and the Transverse Ranges geomorphic province, which features a predominantly east-west-oriented structural grain.

The 45-mile-long Santa Monica Mountains range is part of the southernmost portion of the western Transverse Ranges province. It forms an east-west range of low mountains along the southern California Coast from the Oxnard Plain to Los Angeles. The Santa Monica Mountain range is characterized by long, south-draining canyons on its south flank and short, north-draining canyons on its north flank. The Malibu Canyon and Winter Canyon are two canyons in the study area that drain to the south.

3.3 Hydrogeology

The Malibu Valley Groundwater Basin (Department of Water Resources [DWR] groundwater basin no. 4-22) is a 613-acre alluvial basin. The groundwater basin is bounded by the Pacific Ocean to the south and the Santa Monica Mountains to the north, east, and west. The basin is composed of non-water-bearing Tertiary age rocks.

Water bearing geologic formations in the Malibu Valley Groundwater Basin include Holocene alluvium, consisting of clays, silts, sands, and gravels overlying impermeable bedrock. The unconsolidated alluvium in the Civic Center area by Malibu Creek and other small drainages is estimated to range in thickness from a thin layer near the valley walls to about 175 feet in the central part of the main body of the alluvium. The alluvium can be subdivided into three categories or zones: 1) a shallow zone of permeable alluvial sediments, 2) underlain by a sequence of fine-

grained estuarine deposits, and 3) an underlying coarse-grained stratum commonly referred to as the "Civic Center Gravels" (GeoSoils 1989, Leighton 1994, ECI 2000, Ambrose and Orme 2000, Fugro West, Inc. 2005, Geosyntec Consultants 2007). Depth to groundwater in the alluvium is typically 5 to 20 feet below grade and is deeper in the upland canyon areas.

4 Completed Activities During First Quarter 2023

The following activities were completed during the first quarter of 2023:

- Rincon measured depth to water in groundwater monitoring wells on January 24, February 21, and March 11, 2023 (Task V)
- Rincon collected and analyzed groundwater samples for WDR/MRP (Task II) compliance on March 14, 15, and 16, 2023
- Rincon collected and analyzed surface water samples for WDR/MRP (Task II) compliance on March 15, 2023

5 Groundwater Elevations and Gradients

During each month of the quarter, Rincon measured the depth to water at 42 groundwater monitoring wells using an electronic water level indicator (summarized in the table below; also see Table 1 and Appendix A).

Groundwater Monitoring Locations

Shallow Zone (32 wells)[1]				
C-1[2]	C-2	CCPE	CCPNE	CCPSW
CCW-4	GH6-M1	GH8-M3	M6-1	M6-2
M7-1	M7-2	MBCMW-5[3]	MBCMW-7	MBCMW-8
MBCMW-9	MBCMW-10	MCWP-MW04S	MCWP-MW07S	MCWP-MW08
MCWP-MW10	P-4	P-9[2]	SMBRP-2	SMBRP-6
SMBRP-7B	SMBRP-8 (EC1-RC-MW01)	SMBRP-9[2]	SMBRP-12	SMBRP-13
SMBRP-15B[3]	SMBRP-16			
Deep Zone (8 wells)				
MCWP-MW01	MCWP-MW02	MCWP-MW03	MCWP-MW04D	MCWP-MW05
MCWP-MW06	MCWP-MW07D	MCWP-MW09		
Winter Canyon (2 wells)				
LAMW-5S	SMBRP-11			

[1] Three wells have been removed from the original monitoring network: GH9-M4 has been buried as of the September 2018 monitoring event, MBCMW-6 was removed following grading activities in 2019, and SMBRP-10C was removed during the development of a sidewalk in March 2021

[2] C-1, P-9, and SMBRP-9 were inaccessible during the December monitoring event

[3] MBCMW-5 and SMBRP-15B were dry during each month of the monitoring period

5.1 Shallow Zone

Groundwater elevation measurements from each shallow monitoring well are included in Table 1 and shown on Figures 3, 4, and 5. The following table summarizes the shallow groundwater elevation ranges observed during the first quarter of 2023, changes in elevation compared to the fourth quarter of 2022, and historical groundwater elevation range.

Summary of Groundwater Elevations – Shallow Zone

1st Quarter 2023			4th Quarter 2022			Historical	
Minimum	**Maximum**	**Average**	**Minimum**	**Maximum**	**Average**	**Minimum**	**Maximum**
1.58 (MBCMW-5)	25.15 (SMBRP-8)	8.68	3.03 (MCWP-MW10)	18.84 (SMBRP-8)	7.77	1.09 (CCPE, 05/2020)	25.38 (SMBRP-8, 05/2017)

Changes from January to March 2023						
Decrease			Increase			
# Observed	**Maximum**	**Average**	**# Observed**	**Maximum**	**Average**	**Average Change**
24	-2.69 (SMBRP-6)	-1.34	8	4.65 (SMBRP-8)	1.70	-0.05

Note: Elevations measured in feet above mean sea level

The shallow groundwater gradient was calculated, and flow direction estimated based on the groundwater elevation data in SMBRP-2, SMBRP-9, and SMBRP-12 and summarized in the table below (Figures 3, 4, and 5).

Summary of Groundwater Gradients

Month	**Gradient** (feet per foot)	**Flow Direction**
January[1]	0.0025	Southeast
February[1]	0.0031	Southeast
March	0.0035	Southeast

[1] GH8-M3 was used to calculate the January and February gradients as SMBRP-9 was inaccessible

5.2 Deep Zone

Groundwater elevation measurements from each deep monitoring well are included in Table 1. The following table summarizes the deep groundwater elevation ranges observed in the first quarter of 2023, changes in elevation compared to the fourth quarter of 2022, and historical groundwater elevation ranges:

Summary of Groundwater Elevations – Deep Zone

1st Quarter 2023			4th Quarter 2022			Historical	
Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum
4.32 (MCWP-MW07D)	11.41 (MCWP-MW09)	7.45	5.86 (MCWP-MW02)	10.75 (MCWP-MW09)	7.41	3.73 (MCWP-MW07D, 3/2022)	11.55 (MCWP-MW09, 12/2015)

Changes from January to March 2023						
Decrease			Increase			Average Change
# Observed	Maximum	Average	# Observed	Maximum	Average	
8	-1.59 (MCWP-MW04D)	-1.30	0	-	-	-1.30

Note: Elevations measured in feet above mean sea level

5.3 Winter Canyon

Groundwater elevation measurements from each Winter Canyon monitoring well are included in Table 1. The following table summarizes the Winter Canyon groundwater elevation ranges observed in the first quarter of 2023, changes in elevation compared to the fourth quarter of 2022, and historical groundwater elevation ranges.

Summary of Groundwater Elevations – Winter Canyon

1st Quarter 2023			4th Quarter 2022			Historical	
Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum
9.10 (SMBRP-11)	45.02 (LAMW-5S)	26.85	9.54 (SMBRP-11)	46.20 (LAMW-5S)	27.76	8.65 (SMBRP-11, 08/2021)	58.65 (LAMW-5S, 03/2019)

Changes from January to March 2023						
Decrease			Increase			Average Change
# Observed	Maximum	Average	# Observed	Maximum	Average	
0	-	-	0	4.30 (LAMW-5S)	2.23	2.23

Note: Elevations measured in feet above mean sea level

6 Water Quality Sampling Analysis

This section presents laboratory analytical results for samples collected during the first quarter 2023 monitoring event. Included below are the constituents required by the WDR for surface water monitoring, which are also analyzed in groundwater samples. This includes total and fecal coliform, nitrate as nitrogen, nitrite as nitrogen, organic nitrogen, ammonia, total Kjeldahl nitrogen (TKN), and total phosphorous. Ammonia (NH_3^+) is the primary form of nitrogen in OWDS effluent, and it is converted to nitrate during the leaching process through the vadose zone. A schematic of this process is provided as Figure 6.

Surface water and groundwater monitoring locations and corresponding laboratory analyses are shown in the Groundwater and Surface Water Analytical Matrix (Table 2). The laboratory analytical results for the first quarter 2023 monitoring event are provided in Table 3 and Table 4. Analytical laboratory reports are included as Appendix B of this report.

6.1 Surface Water

A total of 10 surface water samples were collected on March 15, 2023. Four ocean water samples were collected from the Near Shore sampling locations (N-001 through N-004) and six surface water samples were collected from the Malibu Lagoon and Creek (L-001 through L-006) in accordance with the WDR/MRP (Task II) monitoring requirements, as summarized in the table below.

Surface Water Sampling Locations

Near Shore	Malibu Lagoon and Creek
N-001	L-001
N-002	L-002
N-003	L-003
N-004	L-004
-	L-005
-	L-006

Sampling Methodology

The Near Shore ocean water samples were collected from each location at a depth of approximately 3-6 inches (ankle deep). Surface water samples from Malibu Lagoon and Creek monitoring locations were collected from each location at a depth of approximately 12 inches below the surface of the water.

All surface water samples were collected up-current of sampling personnel to minimize potential contamination of surface water samples with bacteria originating from field personnel. Surface water samples were collected directly into lab-supplied containers when possible, or into a field sampling container and then transferred into preserved and non-preserved containers supplied by Enthalpy Analytical (Enthalpy), a California-accredited analytical laboratory located in Orange, California. The containers were capped, labeled, placed in Ziploc bags, and stored on ice in a cooler and delivered via courier to Enthalpy under chain-of-custody documentation.

Laboratory Analyses

Near Shore

The following table summarizes constituent detections in surface water samples collected from the four Near Shore sampling locations. This table presents the number of samples detected above the laboratory detection limit (RDL), the minimum and maximum concentrations detected above the RDL, and average concentration for each detected constituent.[1]

Summary of Detected Concentrations in Surface Water – Near Shore

Constituent	Number Detected	Minimum Detected	Maximum Detected	Average	Units
Total Coliform	4	100 (N-002)	2,400 (N-003 through N-004)	1,300	MPN/100 mL
Fecal Coliform	2	-	2400 (N-003)	610	MPN/100 mL
Nitrate as Nitrogen	4	0.050 (N-001)	0.82 (N-004)	-	mg/L
Nitrite as Nitrogen	0	-	-	-	mg/L
Organic Nitrogen	4	0.38 L-002) (N-003)	1.30 (N-003)	0.69	mg/L
Ammonia Nitrogen	1	-	0.08 (N-003)	0.059	mg/L
Total Kjeldahl Nitrogen	4	0.38 (N-002)	1.40 (N-003)	0.72	mg/L
Total Phosphorous	4	0.15 (N-003)	1.30 (N-004)	0.61	mg/L

MPN/100 mL – Most Probable Number per 100 milliliters
mg/L – milligrams per liter

Malibu Lagoon and Creek

The following table summarizes constituent detections in surface water samples collected from the six Malibu Lagoon and Creek monitoring locations.

Summary of Detected Concentrations in Surface Water – Malibu Lagoon and Creek

Constituent	Number Detected	Minimum Detected	Maximum Detected	Average	Units
Total Coliform	6	1,000 (L-002)	>2,400 (L-001, L-003, L-004, L-005, L-006)	2,200	MPN/100 mL
Fecal Coliform	6	760 (L-001)	1,600 (L-005)	1,200	MPN/100 mL
Nitrate as Nitrogen	6	0.25 (L-006)	0.64 (L-002 and L-003)	-	mg/L
Nitrite as Nitrogen	5	-	0.02 (L-001 through L-004	-	mg/L
Organic Nitrogen	6	0.22 L-002)	4.50 (L-006)	1.24	mg/L
Ammonia Nitrogen	2	-	0.053 (L-006)	0.051	mg/L
Total Kjeldahl Nitrogen	6	0.22 (L-002)	4.50 (L-006)	1.27	mg/L
Total Phosphorous	6	0.330 (L-006)	0.59 (L-001)	0.48	mg/L

MPN/100 mL – Most Probable Number per 100 milliliters
mg/L – milligrams per liter

[1] Averages throughout this report are calculated using the upper detection limit value for results that exceeded the upper detection limit and half of the RDL for results that were not detected.

6.2 Groundwater

A total of 7 groundwater monitoring wells were sampled during the first quarter of 2023 in accordance with the WDR/MRP (Task II) monitoring requirements.

Groundwater Sampling Locations

Well ID	Zone	Task	Sampling Frequency
SMBRP-9	Shallow	II, III, IV	Quarterly
SMBRP-12	Shallow	II, III, IV	Quarterly
MCWP-MW04S	Shallow	II, III, IV	Quarterly
MCWP-MW07S	Shallow	II, III, IV	Quarterly
MCWP-MW04D	Deep	II, III, IV	Quarterly
MCWP-MW07D	Deep	II, III, IV	Quarterly
MCWP-MW09	Deep	II, III, IV	Quarterly
SMBRP-11	Winter Canyon	II, III, IV	Quarterly[1]
LAMW-5S	Winter Canyon	II, III, IV	Quarterly[1]
CCPE	Shallow	III, IV	Semi-Annually
SMBRP-7B	Shallow	III, IV	Semi-Annually
SMBRP-13	Shallow	III, IV	Semi-Annually
MBCMW-9	Shallow	III, IV	Semi-Annually
MCWP-MW10	Shallow	III, IV	Semi-Annually
MCWP-MW05	Deep	III	Semi-Annually
MCWP-MW06	Deep	III	Semi-Annually

[1] – Depending on quarterly flows of recycled water from the CCWTF to the percolation ponds, the number of Long-Term groundwater monitoring samples collected for a given quarter may be reduced. The reduced sampling is allowed when no more than 10 percent greater than the permitted flows are discharged to the percolation ponds, per page 12 and 13 of the MRP No. CI 10042.

Sampling Methodology

Prior to sampling, a minimum of three casing volumes were purged from each well using a submersible pump or by hand bailing. Purging stopped when consecutive water quality measurements (temperature, electrical conductivity, and pH) varied by less than 10 percent or until the well purged dry, whichever occurred first. Field equipment was decontaminated between each well. Purged groundwater and decontamination water were stored in a 100-gallon and 250-gallon high-density polyethylene tank during field activities, and properly disposed at the CCWTF.

Once each well was purged, groundwater samples were collected using preserved and non-preserved containers supplied by Enthalpy. The containers were capped, labeled, placed in Ziploc bags, and stored on ice in coolers pending delivery to Enthalpy. Field data sheets are included in Appendix A.

Laboratory Analyses

The following table summarizes constituent detections in groundwater samples collected in the first quarter of 2023. For comparison, this table presents results for constituents also analyzed for in

surface water samples. In addition to those constituents, results for total dissolved solids (TDS), which represents the total concentration of dissolved substances in water and is commonly associated with OWDS effluent, are presented below. For a complete list of analytical results from groundwater samples, please refer to Appendix B.

Summary of Detected Concentrations in Groundwater

Constituent	Number Analyzed	Number Detected	Minimum Detected	Maximum Detected	Average	Units
Total Coliform	14	14	1.0 (SMBRP-9, CCPE)	>2,400 (MCWP-MW04D, MBCMW-)	593	MPN/ 100 mL
Fecal Coliform	14	4	1.0 (MCWP-MW07S, MBCMW-9)	38 (SMBRP-7B)	3.4	MPN/ 100 mL
Nitrate as Nitrogen	16	15	0.0060 (SMBRP-12)	20 (LAM-5S)	3.1	mg/L
Nitrite as Nitrogen	14	9	0.0080 (MBCMW-9)	0.080 (SMBRP-11)	0.040	mg/L
Organic Nitrogen	13	13	0.17 (MCWP-MW07S, MCWP-MW07D)	2.8 (SMBRP-12)	0.55	mg/L
Ammonia Nitrogen	13	6	0.046 (LAM-5S)	9.2 (SMBRP-12)	1.1	mg/L
Total Kjeldahl Nitrogen	13	13	0.22 (SMBRP-13)	12 (SMBRP-12)	1.7	mg/L
Total Phosphorous	14	14	0.023 (SMBRP-9)	1.1 (SMBRP-12)	0.42	mg/L
Total Dissolved Solids	16	16	290 (SMBRP-13)	4,600 (MBCMW-9)	1,800	mg/L

MPN/100 mL – Most Probable Number per 100 milliliters
mg/L – milligrams per liter

6.3 Analytical Laboratory QA/QC

Enthalpy performed quality assurance/quality control (QA/QC) measures including the recovery of surrogates. Enthalpy followed all QA/QC procedures per method requirements. The notes column of the analytical reports also has the QC flags. Any issues that are not covered by the qualifier flags (definitions page found below the analytical tables), are addressed as part of the case narrative.

7 Scheduled Activities for the Second Quarter of 2023

The following activities will be completed during the second quarter of 2023:

- Prepare and submit this First Quarter 2023 Long-Term Groundwater and Surface Water Monitoring Report to the LARWQCB
- Collect and analyze groundwater and surface water samples for WDR/MRP (Task II), SNMP (Task III), and MOU (Task IV) compliance
- Measure depth to water in the groundwater monitoring wells in April, May, and June 2023 (Task V)

8 Summary of Monitoring Activities

8.1 Groundwater Elevations

Consistent with past observations, shallow groundwater generally flows southeast. During the first quarter of 2023, groundwater elevations decreased in 54 percent of shallow wells (13 out of 24), decreased in all of the deep wells (8 out of 8), and increased in both Winter Canyon wells, with a total average change of 2.23 feet. In addition, based on observations made throughout the monitoring period, Rincon recommends general maintenance of the groundwater monitoring wells to protect the well casings from surface water inflow.

8.2 Surface Water Quality

Total coliform concentrations in the Near Shore and Malibu Lagoon and Creek exceeded the upper detection limit of 2,400 MPN/100 mL in eight of the 10 samples collected. Surface water samples showed an average decrease of 250 MPN/100 mL of total coliform compared to the fourth quarter of 2022.

Fecal coliform concentrations in the Near Shore increased with an average concentration of 610 MPN/100 mL compared to the average concentration of 20.6 MPN/100 mL observed in the fourth quarter of 2022. In the Malibu Lagoon and Creek locations, fecal coliform concentrations increased with an average concentration of 1,200 MPN/100 mL compared to the average concentration of 165 MPN/100 mL observed in the fourth quarter of 2022.

Nitrate as nitrogen averaged 0.38 mg/L in Near Shore samples and 0.55 mg/L in Malibu Lagoon and Creek samples. Nitrite as nitrogen was not detected above the reporting limit in Near Shore samples and averaged 0.032 mg/L in Malibu Lagoon and Creek samples. Neither nitrate as nitrogen nor nitrite as nitrogen were detected above the reporting limit in the Near Shore or Malibu Lagoon and Creek samples during the fourth quarter of 2022. Organic nitrogen averaged 0.69 mg/L in Near Shore samples and 1.24 mg/L in Malibu Lagoon and Creek samples. When compared to the fourth quarter of 2022, organic nitrogen concentrations had an average decrease of 0.15 and increase of 0.59 mg/L in the Near Shore and Malibu Lagoon and Creek samples, respectively.

Phosphorous concentrations increased with an average concentration of 0.53 mg/L compared to the average concentration of 0.14 mg/L observed in the fourth quarter of 2022.

8.3 Groundwater Quality

When comparing analytical results, note that 16 groundwater monitoring wells were sampled during the first quarter of 2023 (Task II), and seven wells were sampled during the fourth quarter of 2022 (Task II, III, and IV). Of the seven wells sampled during both periods, total coliform increased in five wells and decreased in two wells. The total average increase compared to the fourth quarter of 2022 was 240 MPN/100 mL.

Fecal coliform was detected above the reporting limit in five of the 16 wells during the first quarter of 2023, with an average concentration of 3.4 MPN/100 mL.

When compared to the fourth quarter of 2022, nitrate concentrations increased in three wells and decreased in four wells. The average concentration increased by 0.9 mg/L when compared to the fourth quarter of 2022.

When compared to the fourth quarter of 2022, average TDS concentrations in groundwater samples decreased from an average of 2,800 mg/L to 1,800 mg/L in the first quarter of 2023.

9 Limitations

This report has been prepared for and is intended for the exclusive use of the City of Malibu. The contents of this report should not be relied upon by any other party without the written consent of Rincon Consultants, Inc.

Our conclusions regarding the site are based on observations of existing site conditions, our interpretation of site usage information, and the results of a limited subsurface sampling and chemical testing program. The concentrations of contaminants measured at any given location may not be representative of conditions at other locations intermediate to the locations sampled. Furthermore, conditions may change at any location as a function of time in response to natural conditions, chemical reactions, and other events. Conclusions regarding the condition of the site do not represent a warranty that all areas within the site are like those sampled.

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Tables

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	**Date**	**TOC Elevation** (ft)	**Depth to Water** (ft bTOC)	**Groundwater Elevation**
C-1	1/11/2023	11.47	N/A	-
C-1	2/21/2023	11.47	dry	-
C-1	3/13/2023	11.47	N/A	-
C-2	1/11/2023	11.19	5.89	5.30
C-2	2/21/2023	11.19	5.59	5.60
C-2	3/13/2023	11.19	7.28	3.91
CCPE	1/11/2023	12.94	7.22	5.72
CCPE	2/21/2023	12.94	7.26	5.68
CCPE	3/13/2023	12.94	8.62	4.32
CCPNE	1/11/2023	13.68	7.45	6.23
CCPNE	2/21/2023	13.68	8.17	5.51
CCPNE	3/13/2023	13.68	8.75	4.93
CCPSW	1/11/2023	13.67	7.11	6.56
CCPSW	2/21/2023	13.67	8.20	5.47
CCPSW	3/13/2023	13.67	8.15	5.52
CCW-4	1/11/2023	15.77	4.70	11.07
CCW-4	2/21/2023	15.77	4.42	11.35
CCW-4	3/13/2023	15.77	1.85	13.92
GH6-M1	1/11/2023	-	30.10	-
GH6-M1	2/21/2023	-	29.30	-
GH6-M1	3/13/2023	-	28.92	-
GH8-M3	1/11/2023	40.21	29.17	11.04
GH8-M3	2/21/2023	40.21	28.46	11.75
GH8-M3	3/13/2023	40.21	27.90	12.31
M6-1	1/11/2023	-	4.58	-
M6-1	2/21/2023	-	6.25	-
M6-1	3/13/2023	-	4.92	-
M6-2	1/11/2023	-	1.58	-
M6-2	2/21/2023	-	3.75	-
M6-2	3/13/2023	-	1.51	-
M7-1	1/11/2023	-	5.18	-
M7-1	2/21/2023	-	7.17	-
M7-1	3/13/2023	-	5.04	-
M7-2	1/11/2023	-	3.97	-
M7-2	2/21/2023	-	6.20	-
M7-2	3/13/2023	-	3.48	-
MBCMW-5	1/11/2023	19.40	dry	-
MBCMW-5	2/21/2023	19.40	dry	-
MBCMW-5	3/13/2023	19.40	17.82	1.58
MBCMW-7	1/11/2023	16.64	9.16	7.48
MBCMW-7	2/21/2023	16.64	11.10	5.54
MBCMW-7	3/13/2023	16.64	10.79	5.85
MBCMW-8	1/11/2023	16.53	4.72	11.81
MBCMW-8	2/21/2023	16.53	6.45	10.08
MBCMW-8	3/13/2023	16.53	3.55	12.98
MBCMW-9	1/11/2023	17.71	7.09	10.62
MBCMW-9	2/21/2023	17.71	6.70	11.01
MBCMW-9	3/13/2023	17.71	4.95	12.76

Table 1
Groundwater Elevations

Deep Groundwater Monitoring Wells				
Well ID	**Date**	**TOC Elevation** (ft)	**Depth to Water** (ft bTOC)	**Groundwater Elevation**
MCWP-MW01	1/11/2023	17.90	8.23	9.67
MCWP-MW01	2/21/2023	17.90	9.85	8.05
MCWP-MW01	3/13/2023	17.90	10.20	7.70
MCWP-MW02	1/11/2023	18.06	10.90	7.16
MCWP-MW02	2/21/2023	18.06	12.00	6.06
MCWP-MW02	3/13/2023	18.06	11.78	6.28
MCWP-MW03	1/11/2023	15.31	6.85	8.46
MCWP-MW03	2/21/2023	15.31	8.93	6.38
MCWP-MW03	3/13/2023	15.31	7.32	7.99
MCWP-MW04D	1/11/2023	15.43	7.38	8.05
MCWP-MW04D	2/21/2023	15.43	8.95	6.48
MCWP-MW04D	3/13/2023	15.43	9.38	6.05
MCWP-MW05	1/11/2023	13.92	5.65	8.27
MCWP-MW05	2/21/2023	13.92	7.77	6.15
MCWP-MW05	3/13/2023	13.92	7.36	6.56
MCWP-MW06	1/11/2023	16.05	7.77	8.28
MCWP-MW06	2/21/2023	16.05	9.80	6.25
MCWP-MW06	3/13/2023	16.05	9.63	6.42
MCWP-MW07D	1/11/2023	13.21	6.70	6.51
MCWP-MW07D	2/21/2023	13.21	8.89	4.32
MCWP-MW07D	3/13/2023	13.21	7.23	5.98
MCWP-MW09	1/11/2023	16.30	4.89	11.41
MCWP-MW09	2/21/2023	16.30	6.41	9.89
MCWP-MW09	3/13/2023	16.30	5.85	10.45

Table 1
Groundwater Elevations

Winter Canyon Groundwater Monitoring Wells				
Well ID	**Date**	**TOC Elevation** (ft)	**Depth to Water** (ft bTOC)	**Groundwater Elevation**
LAMW-5S	1/11/2023	104.55	60.52	44.03
LAMW-5S	2/21/2023	104.55	57.54	47.01
LAMW-5S	3/13/2023	104.55	56.22	48.33
SMBRP-11	1/11/2023	18.35	7.80	10.55
SMBRP-11	2/21/2023	18.35	8.45	9.90
SMBRP-11	3/13/2023	18.35	7.65	10.70

Notes:

Elevations measured in feet above mean sea level

Three shallow wells have been removed from the original monitoring network; GH9-M4 has been buried as of the

-: No data available

ft bTOC: Feet below top of well casing

N/A: Depth to water was not measured; groundwater monitoring well was not accessible

TOC: Top of well casing

Table 2
Groundwater and Surface Water Analytical Matrix

Groundwater	Long-Term, SNMP, MOU (Tasks II, III, IV)									SNMP, MOU (Tasks III, IV)					SNMP (Task III)	
	Shallow Zone				Deep Zone			Winter Canyon		Shallow Zone					Deep Zone	
Laboratory Analysis[1]	*SMBRP-9*	*SMBRP-12*	*MCWP-MW04S*	*MCWP-MW07S*	*MCWP-MW04D*	*MCWP-MW07D*	*MCWP-MW09*	*SMBRP-11*[2]	*LAMW-5S*	*CCPE*	*SMBRP-7B*	*SMBRP-13*	*MBCMW-9*[3]	*MCWP-MW10*	*MCWP-MW05*	*MCWP-MW06*
General Chemistry (Long-Term sampled quarterly, SNMP and MOU sampled semi-annually)																
General Chemistry (pH, Total Dissolved Solids, Sulfate, Chloride, Boron, Methylene Blue Active Substances [MBAS]/Foaming Agents)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓ (TDS only)	-	-	-	✓ (TDS only)	✓ (TDS only)	✓ (TDS only)
Biological Oxygen Demand (BOD)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Turbidity (includes color and odor)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Total and Fecal Coliform	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	-	-
Total Suspended Solids	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Residual Chlorine	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Total Organic Carbon	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Oil and Grease	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Nitrate as Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	✓
Nitrite as Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	-	-
Nitrate and Nitrite as Nitrogen (calculation)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Ammonia Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	-	-
Kjeldahl Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	-	-
Organic Nitrogen (calculation)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	-	-
Total Nitrogen (includes TKN)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Total Phosphorous	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	-	-
Constituents listed in Attachments A1 to A5 of MRP CI 10042 (Long-Term sampled annually)																
Metals (aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, mercury, nickel, selenium, thallium)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Asbestos	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Cyanide	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Perchlorate	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Fluoride	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Combined Radium-226 and Radium-228	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Gross Alpha and Beta Particle Activity	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Tritium	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Strontium-90	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Uranium	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Volatile Organic Compounds (EPA Method 524.2)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB) (EPA Method 504.1)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-

Table 2
Groundwater and Surface Water Analytical Matrix

Groundwater	Long-Term, SNMP, MOU (Tasks II, III, IV)									SNMP, MOU (Tasks III, IV)					SNMP (Task III)	
	Shallow Zone				Deep Zone			Winter Canyon		Shallow Zone					Deep Zone	
Laboratory Analysis[1]	*SMBRP-9*	*SMBRP-12*	*MCWP-MW04S*	*MCWP-MW07S*	*MCWP-MW04D*	*MCWP-MW07D*	*MCWP-MW09*	*SMBRP-11*[2]	*LAMW-5S*	*CCPE*	*SMBRP-7B*	*SMBRP-13*	*MBCMW-9*[3]	*MCWP-MW10*	*MCWP-MW05*	*MCWP-MW06*
Constituents listed in Attachments A1 to A5 of MRP CI 10042 (Long-Term sampled annually)																
Chlordane, Endrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Hexachloro-cyclopentadiene, Lindane, Methoxychlor, Polychlorinated Biphenyls, Toxaphene (EPA Method 505)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Alachlor, Atrazine, Simazine (EPA Method 507)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Bentazon, 2,4-D, Dalapon, Dinoseb, Pentachlorophenol, Picloram, 2,4,5-TP (Silvex) (EPA Method 515.3)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Benzo(a)pyrene, Di(2-ethylhexyl)adipate, Di(2-ethylhexyl)phthalate, Molinate, Thiobencarb (EPA Method 525.2)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Carbofuran, Oxamyl (EPA Method 531.1)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Glyphosate (EPA Method 547)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Endothall (EPA Method 548.1)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Diquat (EPA Method 549.2)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
2,3,7,8-TCDD (Dioxin) (EPA Method 1613)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Trihalomethanes	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Haloacetic Acids	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Bromate	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Chlorite	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Metals (aluminum, copper, iron, manganese, silver, zinc) (included in metals above)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Color and Odor (included in turbidity above)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Foam agents (MBAS) (included above)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Methyl-tert-butyl ether (MTBE) (included in VOCs above)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Thiobencarb (included in EPA Method 525.2 above)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Constituents of Emerging Concern in Attachment C of MRP CI 10042 (Long-Term sampled annually)																
17β-Estradiol	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Caffeine	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
n-Nitrosodimethylamine (NDMA)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Triclosan	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
n,n-Diethyl-meta-toluamide (DEET)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Sucralose	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-

Table 2
Groundwater and Surface Water Analytical Matrix

Groundwater	Long-Term, SNMP, MOU (Tasks II, III, IV)									SNMP, MOU (Tasks III, IV)					SNMP (Task III)	
	Shallow Zone				Deep Zone			Winter Canyon		Shallow Zone					Deep Zone	
Laboratory Analysis[1]	*SMBRP-9*	*SMBRP-12*	*MCWP-MW04S*	*MCWP-MW07S*	*MCWP-MW04D*	*MCWP-MW07D*	*MCWP-MW09*	*SMBRP-11*[2]	*LAMW-5S*	*CCPE*	*SMBRP-7B*	*SMBRP-13*	*MBCMW-9*[3]	*MCWP-MW10*	*MCWP-MW05*	*MCWP-MW06*
Priority Pollutants listed in Attachment D of MRP CI 10042 (Long-Term sampled annually)																
Metals (antimony, arsenic, barium, beryllium, cadmium, chromium (III), copper, lead, mercury, nickel, selenium, silver, thallium, zinc) (included above)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Chromium VI	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Cyanide (included above)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Asbestos (included above)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
2,3,7,8-TCDD (included above)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Volatile Organic Compounds (EPA Method 624)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Semivolatile Organic Compounds (EPA Method 625)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Pesticides (EPA Method 625)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-
Polychlorinated Biphenyls (included above)	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-

Surface Water	Long-Term (Task II)									
	Near Shore Ocean				Malibu Lagoon and Creek					
Laboratory Analysis (quarterly)	*N-001*	*N-002*	*N-003*	*N-004*	*L-001*	*L-002*	*L-003*	*L-004*	*L-005*	*L-006*
Total and Fecal Coliform	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Nitrate as Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Nitrite as Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ammonia Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Organic Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Kjeldahl Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Total Phosphorous	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes:

Task II: Long-Term Monitoring of Groundwater and Surface Water Quality Monitoring of the Civic Center Area
Task III: Salt and Nutrient Management Plan (SNMP) Monitoring Program
Task IV: Memorandum of Understanding (MOU) Compliance Monitoring

[1]: Depending on quarterly flows of recycled water from the CCWTF to the percolation ponds, the number of Long-Term Groundwater Monitoring samples collected for a given quarter may be reduced from nine (9) to seven (7) groundwater monitoring wells. This reduced number of groundwater monitoring wells is allowed when no more than 10 percent greater than the permitted flows are discharged to the percolation ponds, per page 12 and 13 of the Monitoring and Reporting Program (MRP) No. CI 10042

[2]: TY-MW-1 was replaced by SMBRP-11 per LARWQCB correspondence with City of Malibu dated May 18, 2018

[3]: A sample was not collected from MBWMW-9 due to an insufficient recovery of water from the well during the purging process

✓: Laboratory analysis completed

- : Sampling & analysis not required

Table 3
Surface Water Analytical Results

Location	Monitoring Depth	Sample ID	Sample Date	Coliform Bacteria Analysis (MPN/100 mL)		Inorganic Analysis (mg/L)					
				Total	Fecal	Nitrate Nitrogen	Nitrite Nitrogen	Organic Nitrogen	Ammonia Nitrogen	Kjeldahl Nitrogen	Total Phosphorous
Near Shore	Ankle Depth	N-001	3/15/2023	= **210**	< 1	= **0.050 J**	< 1.0	= **0.63**	< 0.10	= **0.63**	= **0.15**
Near Shore	Ankle Depth	N-002	3/15/2023	= **100**	< 1	= **0.080 J**	< 1.0	= **0.38**	< 0.10	= **0.38 J**	= **0.15**
Near Shore	Ankle Depth	N-003	3/15/2023	> **2,400**	> **2,400**	= **0.57**	< 0.10	= **1.3**	= **0.084 J**	= **1.40**	= **0.83**
Near Shore	Ankle Depth	N-004	3/15/2023	> **2,400**	= **36**	= **0.82 J**	< 1.0	= **0.45**	< 0.10	= **0.45**	= **1.3**
Malibu Lagoon and Creek	1 foot BSW	L-001	3/15/2023	> **2,400**	= **1,200**	= **0.62**	= **0.020 J**	= **0.84**	< 0.10	= **0.84**	= **0.59**
Malibu Lagoon and Creek	1 foot BSW	L-002	3/15/2023	> **2,400**	= **1,000**	= **0.64**	= **0.020 J**	= **0.22**	< 0.10	= **0.22 J**	= **0.42**
Malibu Lagoon and Creek	1 foot BSW	L-003	3/15/2023	> **2,400**	= **1,300**	= **0.64**	= **0.020 J**	= **0.54**	= **0.070 J**	= **0.61**	= **0.48**
Malibu Lagoon and Creek	1 foot BSW	L-004	3/15/2023	> **2,400**	= **760**	= **0.60**	= **0.020 J**	= **0.33**	< 0.10	= **0.33 J**	= **0.49**
Malibu Lagoon and Creek	1 foot BSW	L-005	3/15/2023	> **2,400**	= **1,400**	= **0.56**	= **0.010 J**	= **1.0**	= **0.057 J**	= **1.1**	= **0.58**
Malibu Lagoon and Creek	1 foot BSW	L-006	3/15/2023	> **2,400**	= **1,600**	= **0.25**	< 0.10	= **4.5**	< 0.10	= **4.5**	= **0.33**

Notes:

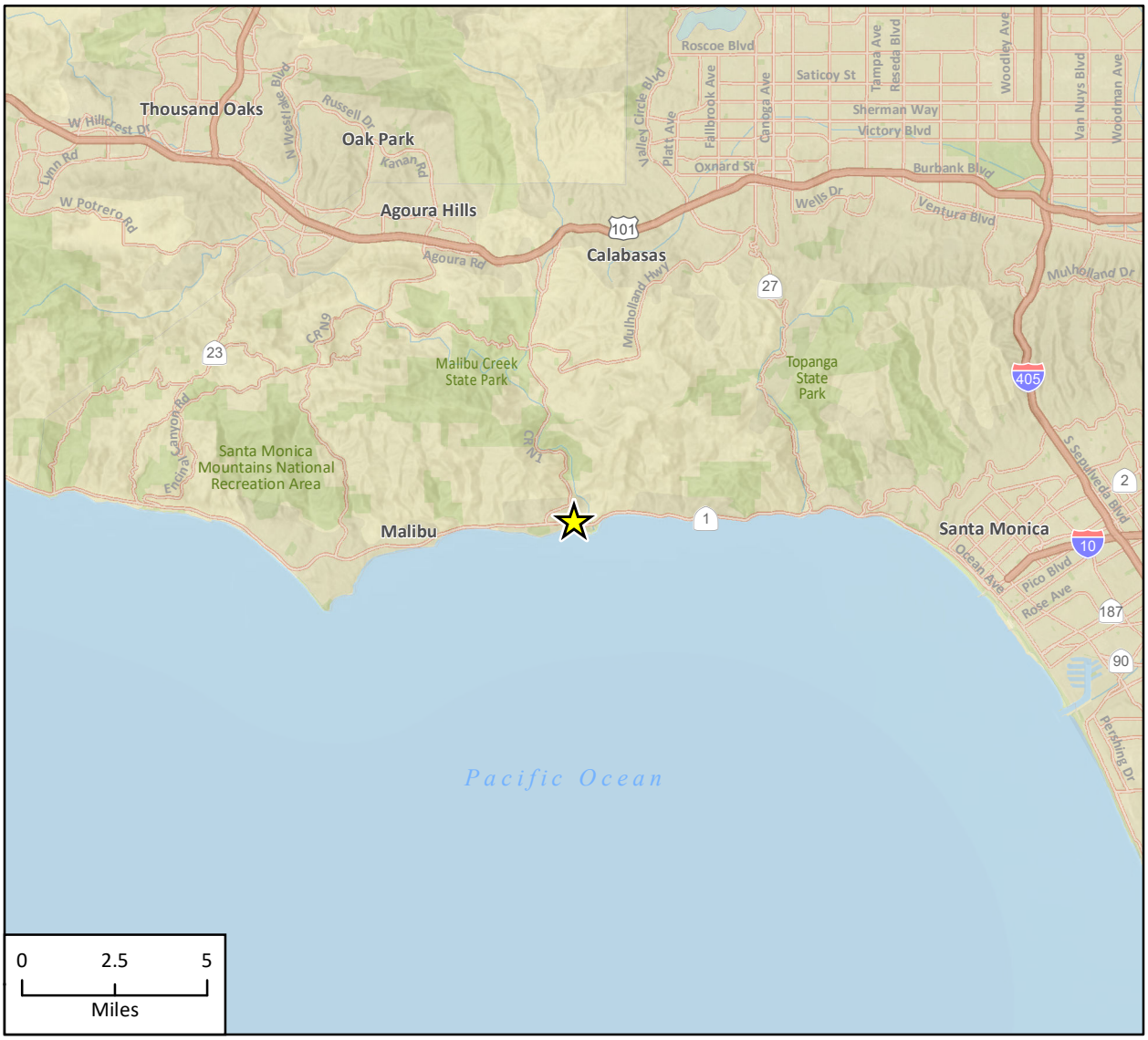
bold: Constituent detected above Reporting Detection Limit (RDL)
=: Constituent detected at reported concentration
<: Constituent not detected above the RDL
>: Constituent detected above the laboratory upper detection limit
BSW: Below surface of water
J: Estimated value; the consituent was detected above the method detection limit, but below the RDL
H: Holding time was exceeded
mg/L: Milligrams per liter

Table 4
Groundwater Analytical Results

Well ID	Well Depth (feet bgs)	Sample Date	Coliform Bacteria (MPN/100 mL)		Inorganic Analyses (mg/L)										
			Total	Fecal	Nitrate Nitrogen	Nitrite Nitrogen	Organic Nitrogen	Ammonia Nitrogen	Total Kjeldahl Nitrogen	Total Nitrogen	Total Phosphorous	Boron	Sulfate	Total Dissolved Solids	Chloride
LAMW-5S	73	3/14/2023	= **310**	< 1.0	= **20**	= **0.02**	= **0.26**	= **0.046 J**	= **0.31**	-	= **0.89**	-	-	= **1,100**	-
SMBRP-7B	25	3/14/2023	> **2400**	= **38**	= **1.6**	= **0.020 J**	= **0.25**	< 0.10	= **0.25 J**	-	= **0.25**	-	-	= **2,300**	-
SMBRP-9	45	3/16/2023	= **1.0**	< 1.0	= **10**	< 0.10	= **0.43**	< 0.10	= **0.43**	= **10**	= **0.023**	= **0.63**	= **260**	= **1,300**	= **190**
SMBRP-11	20	3/14/2023	= **73**	< 1.0	= **7.3**	= **0.080 J**	= **0.50**	= **2.1**	= **2.6**	**-**	= **0.31**	**-**	**-**	= **1,800**	**-**
SMBRP-12	25	3/14/2023	= **16**	< 1.0	= **0.0060 B,J**	= **0.020 J**	= **2.8**	= **9.2**	= **12**	= **12**	= **1.1**	= **0.86**	= **510**	= **2,300**	= **640**
SMBRP-13	20	3/15/2023	= **37**	= **2.0**	= **0.15**	< 0.10	= **0.22**	< 0.10	= **0.22 J**	-	= **0.63**	-	-	= **290**	-
MBCMW-9	9.0	3/14/2023	> **2400**	= **1.0**	= **0.020 B,J**	= **0.0080 J**	= **0.74**	< 0.10	= **0.74 B**	-	= **0.67**	-	-	= **4,600**	-
MCWP-MW04S	20	3/14/2023	= **390**	< 1.0	= **1.4**	= **0.060 J**	= **0.72**	< 0.10	= **0.72**	= **2.2**	= **0.27**	= **1.1**	= **1,400**	= **3,200**	= **220**
MCWP-MW04D	145	3/15/2023	> **2400**	< 1.0	= **1.3**	< 0.10	= **0.37**	< 0.10	= **0.37 J**	= **1.7**	= **0.10**	= **0.84**	= **550**	= **1,500**	= **240**
MCWP-MW05	154	3/16/2023	-	-	= **2.0**	-	-	-	-	-	-	-	-	= **1,400**	-
MCWP-MW06	138	3/15/2023	-	-	< 0.10	-	-	-	-	-	-	-	-	= **1,400**	-
MCWP-MW07S	20	3/14/2023	= **30**	= **1.0**	= **3.7**	= **0.030 J**	= **0.17**	= **0.16**	= **0.33 J**	= **4.1**	= **0.29**	= **0.33**	= **240**	= **1,200**	= **190**
MCWP-MW07D	134	3/14/2023	= **100**	< 1.0	= **0.010 B,J**	= **0.010 J**	= **0.17**	= **0.24**	= **0.41**	= **0.43**	= **0.14**	= **0.36**	= **290**	= **1,100**	= **220**
MCWP-MW09	89	3/14/2023	= **2.0**	= **1.0**	= **0.010 B,J**	= **0.010 J**	= **0.20**	= **2.0**	= **2.2**	= **2.2**	= **0.18**	= **0.75**	= **540**	= **1,900**	= **470**
MCWP-MW10	22	3/15/2023	= **140**	< 1.0	= **0.83**	< 0.10	= **0.30**	< 0.10	= **0.30 J**	-	= **0.083**	-	-	= **2,000**	-
CCPE	53	3/16/2023	= **1.0**	< 1.0	= **1.8**	< 0.10	-	-	-	-	= **0.99**	-	-	= **1,400**	-

Notes:
bold: Constituent detected above Reporting Detection Limit (RDL)
=: Constituent detected at reported concentration
<: Constituent not detected above the RDL
>: Constituent detected above the laboratory upper detection limit
-: Constituent not analyzed
bgs: Below ground surface
B: Analyte found in sample and associated blank
J: Estimated value; the consituent was detected above the method detection limit, but below the RDL
mg/L: Milligrams per liter
MPN/100 mL: Most Probable Number per 100 milliliters

Figures



Project Location

N



Vicinity Map

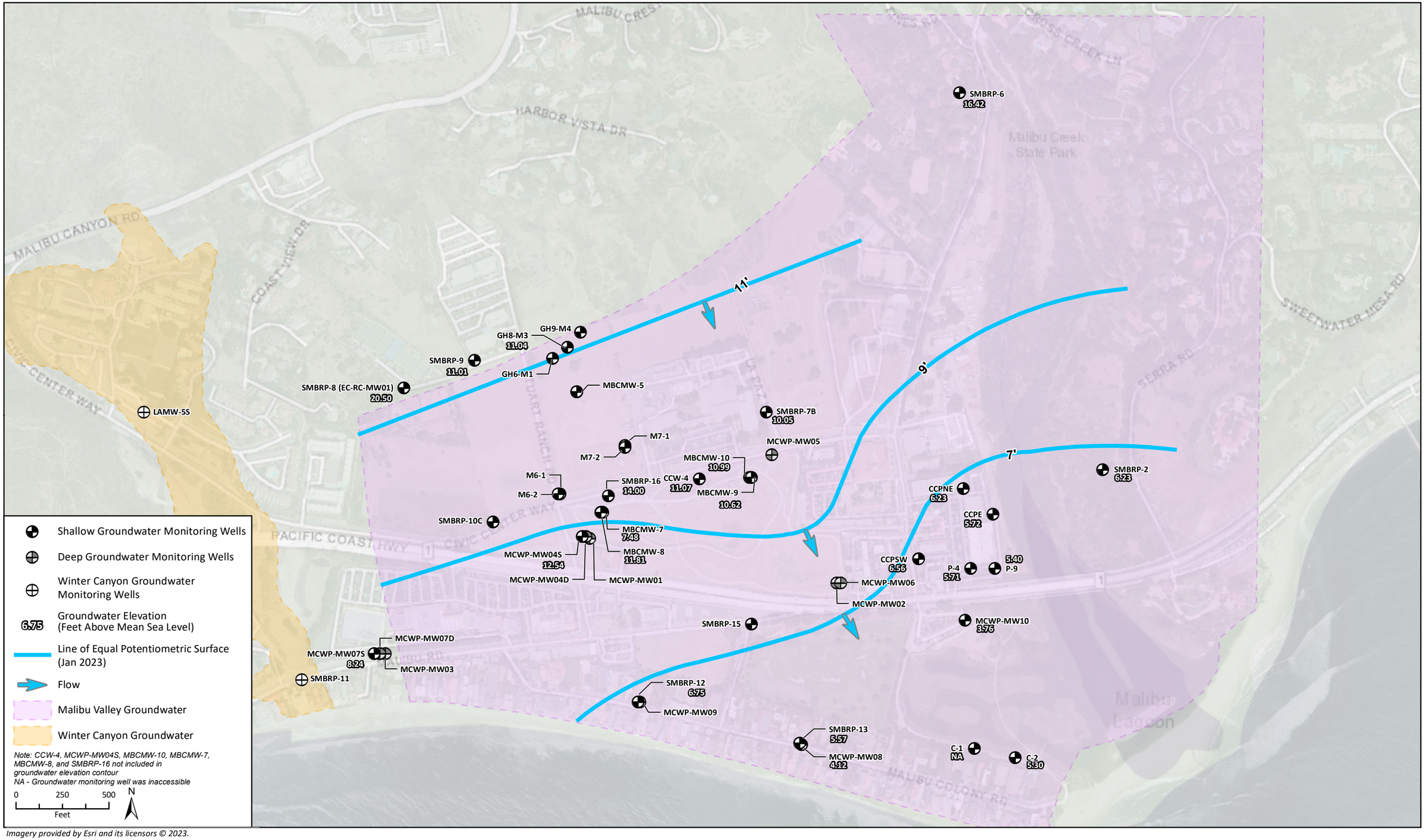
Figure 1



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Site Map - Monitoring Network

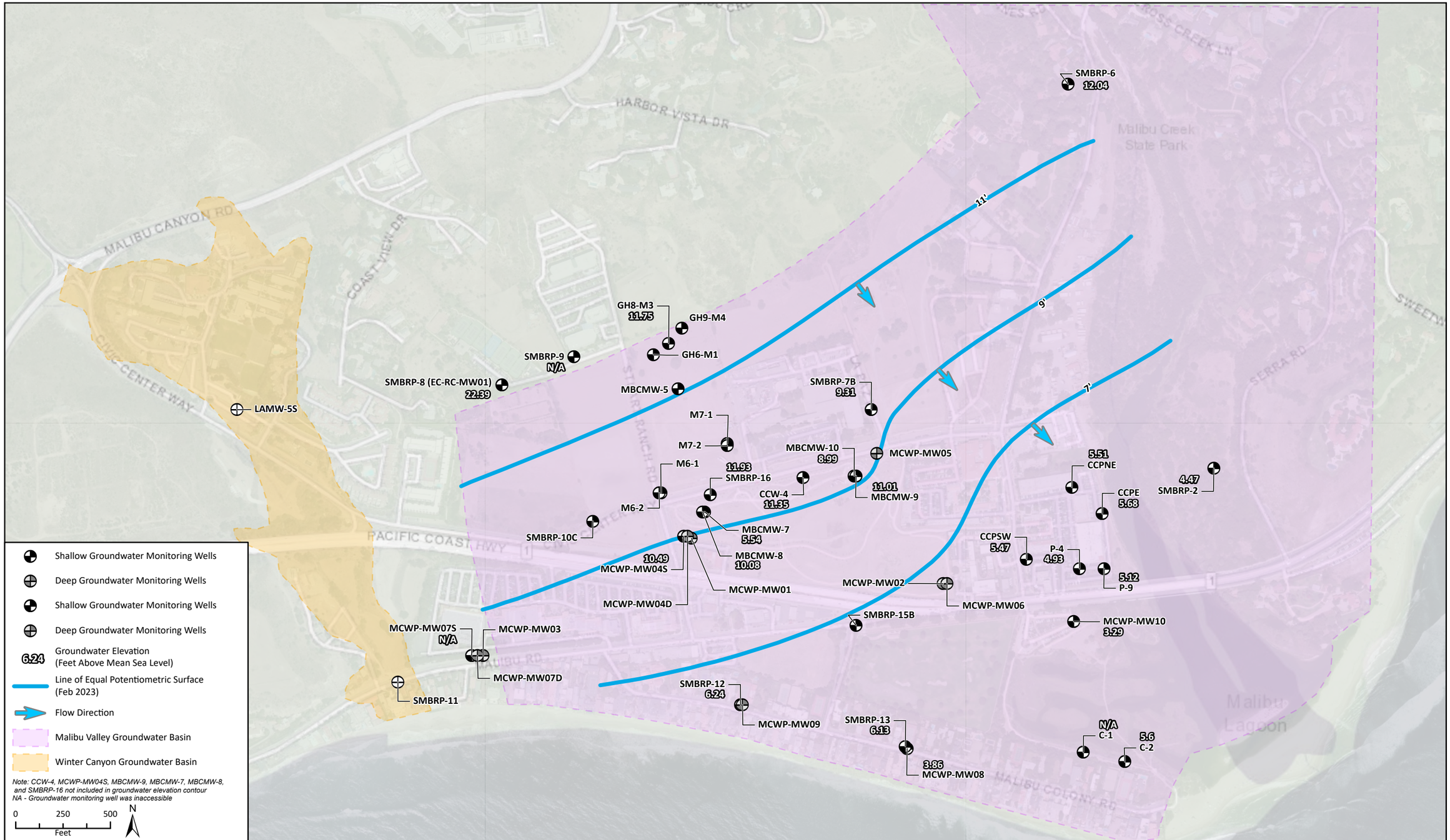
Figure 2



Imagery provided by Esri and its licensors © 2023.

Shallow Groundwater Elevation - January 2023

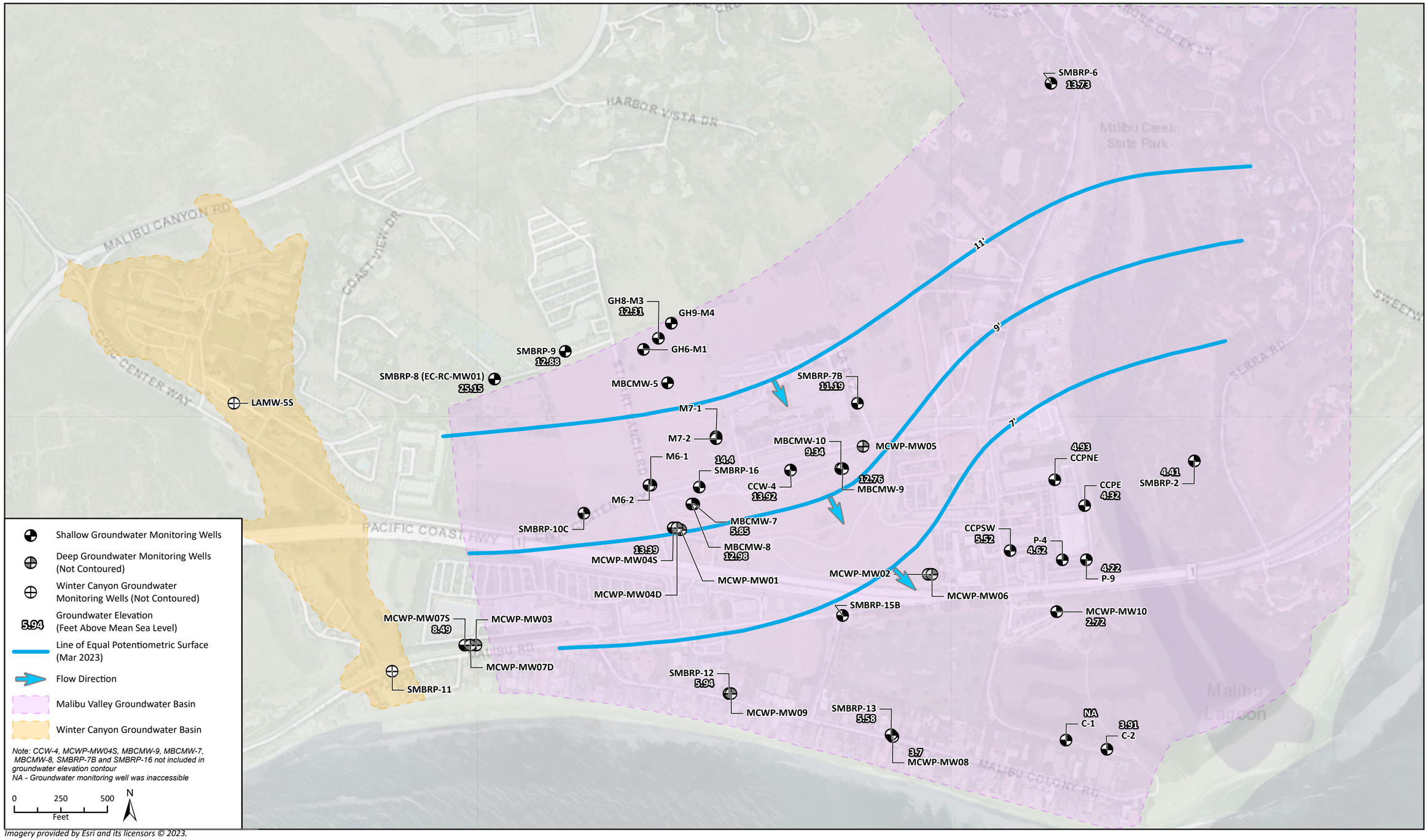
Figure 3



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Shallow Groundwater Elevation - February 2023

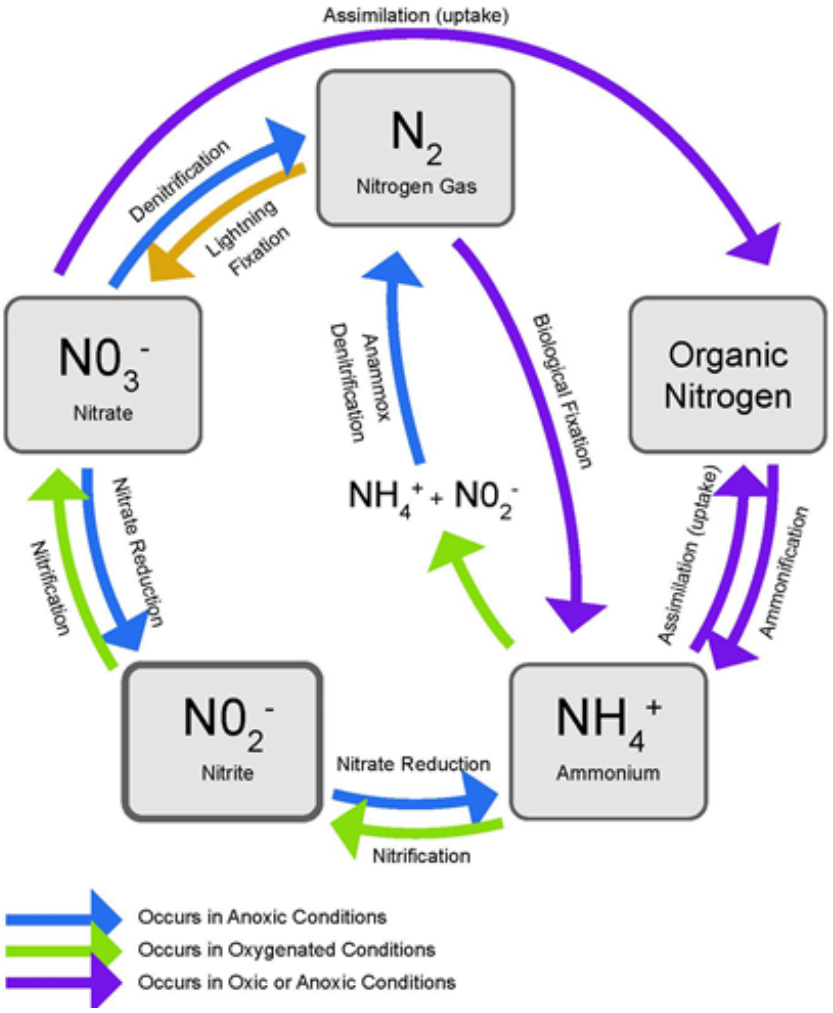
Figure 4



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Shallow Groundwater Elevation - March 2023

Figure 5



The Nitrogen Cycle Figure 6

Appendix A

Groundwater and Surface Water Field Sheets

Well Gauging

Project No.: 20-09665
Date: 1/11/23

Rincon Personnel: Landon L.
Project Name: Malibu Civic Center - January

Begin Time: 1645
End Time: 1650

Well Information

Well ID	Well Diameter (inches)	Time	Depth to Water (ft bTOC)	Total Depth (ft bTOC)		Well Condition	Notes
				Measured	Constructed / Historical		
C-1	4	1220	~~5.40~~	~~5.78~~	14.50		Submerged in Puddle
C-2	4	1230	5.89	13.46	14.20		
CCPE	2	1105	7.22	50.75	52.70		
CCPNE	2	1115	7.45	24.05	24.10		
CCPSW	2	1140	7.11	20.97	19.90		
CCW-4	1	1445	4.70	11.80	12.30		
GH6-M1	2	1405	30.10	34.73	35.20		
GH8-M3	2	1410	29.17	39.27	40.21		
~~GH9-M4~~	—	—	—	—	~~44.29~~	—	—
M6-1	2	1350	4.58	45.12	45.30		
M6-2	2	1355	1.58	19.68	19.40		
M7-1	2	1340	5.18	39.01	39.35		
M7-2	2	1345	3.97	19.40	19.60		
MBCMW-5	2	1400	DRY	18.18	19.40		
~~MBCMW-6~~	—	—	—	—	~~64.26~~	—	—
MBCMW-7	2	1425	9.16	51.87	52.15		
MBCMW-8	2	1430	4.72	11.93	11.95		
MBCMW-9	2	1458	7.09	9.32	9.25		
MBCMW-10	2	1455	6.75	51.25	51.75		
MCWP-MW01	6	1300	6.23	144.95	152.88		
MCWP-MW02	4	1250	10.90	21.99	148.20		Diffent Well ?
MCWP-MW03	6		6.85	132.59	136.65		
MCWP-MW04S	4	1310	2.75	20.45	20.45		

References:
ft bTOC – Feet below top of casing

Scanned with CamScanner

Well Gauging

Project No.: 20-09665

Date: 1/11/23

Well Information

Well ID	Well Diameter (inches)	Time	Depth to Water (ft bTOC)	Total Depth (ft bTOC)		Well Condition	Notes
				Measured	Constructed / Historical		
MCWP-MW04D	4	1305	7.38	145.18	149.20		
MCWP-MW05	4	1450	5.65	151.46	154.40		
MCWP-MW06	2	1240	7.77	136.75	138.15		
MCWP-MW07S	2	1625	5.48	17.15	17.22		
MCWP-MW07D	2	1635	6.70	127.60	129.60		
MCWP-MW08	2	1615	8.09	79.26	79.38		
MCWP-MW09	2	1553	4.89	89.09	89.60		
MCWP-MW10	2	1215	7.35	22.17	22.23		
P-4	4	1138	6.45	10.72	14.57	BAD	
P-9	4	1125	6.77	13.23	13.90		bailed water from box
SMBRP-2	4	1155	6.90	24.76	24.88		
SMBRP-6	2	15.18	10.46	23.35	23.45		
SMBRP-7B	2	1505	8.94	25.03	25.13		
SMBRP-8 (EC1-RC-MW01)	4	1330	28.99	40.29	40.46		
SMBRP-9	2	1320	39.31	44.97	45.40		climbed under car to Acces
~~SMBRP-10C~~	—	—	—	—	~~25.00~~	—	—
SMBRP-12	2	1550	5.87	24.38	24.88		
SMBRP-13	2	1605	8.01	19.38	19.48		
SMBRP-15B	1	1540	DRY	8.30	8.40		
SMBRP-16	2	14.20	0.5	25.20	25.00		
LAMW-5S	4	1045	60.52	74.05	73.43		
SMBRP-11	2	1647	7.80	20.02	20.38		
~~Lagoon~~	—	—	—	—	~~N/A~~	—	—

References:

bTOC – Feet below top of casing

Scanned with CamScanner

Well Gauging

Project No.: 20-09665
Date: 2/21/23

Rincon Personnel: LANDON LUGAN
Project Name: Malibu civic center gauging - FEB

Begin Time: 0940
End Time: 1500

Well Information

Well ID	Well Diameter (inches)	Time	Depth to Water (ft bTOC)	Total Depth (ft bTOC)		Well Condition	Notes
				Measured	Constructed / Historical		
C-1	4	1027	DRY	5.70	14.50		
C-2	4	1030	5.59	13.50	14.20		
CCPE	2	0946	7.26	52.32	52.70	G	
CCPNE	2	0942	8.17	24.08	24.10	G	
CCPSW	2	1008	8.20	20.05	19.90	NO BOLTS	
CCW-4	1	1241	4.42	11.83	12.30		
GH6-M1	2	1203	29.30	34.67	35.20		
GH8-M3	2	1207	28.46	39.30	40.21		
~~GH9-M4~~	—	—	—	—	~~44.29~~	—	—
M6-1	2	1145	6.25	45.11	45.30		
M6-2	2	1147	3.75	19.68	19.40		
M7-1	2	1139	7.17	39.05	39.35		
M7-2	2	1140	6.20	19.32	19.60		
MBCMW-5	2	1155	DRY	18.28	19.40		
~~MBCMW-6~~	—	—	—	—	~~64.26~~	—	—
MBCMW-7	2	1222	11.10	51.86	52.15		
MBCMW-8	2	1224	6.45	11.95	11.95		
MBCMW-9	2	1236	6.70	9.32	9.25		
MBCMW-10	2	1234	8.75	51.29	51.75		
MCWP-MW01	6	1105	9.85	144.90	152.88		
MCWP-MW02	4	1042	12.00	22.05	148.20		
MCWP-MW03	6	1414	8.93	132.61	136.65		
MCWP-MW04S	4	1107	4.80	20.43	20.45		

References:
ft bTOC – Feet below top of casing

Scanned with CamScanner

Project No.: 20-09665

Date: 2/21/23

Well Information

Well ID	Well Diameter (inches)	Time	Depth to Water (ft bTOC)	Total Depth (ft bTOC)		Well Condition	Notes
				Measured	Constructed / Historical		
MCWP-MW04D	4	1053	8.95	145.22	149.20		
MCWP-MW05	4	1246	7.77	151.50	154.40		
MCWP-MW06	2	1044	9.80	136.25	138.15		
MCWP-MW07S	2	1410	N/A	N/A	17.22		Car Parked on Top
MCWP-MW07D	2	1412	8.87	127.58	129.60		
MCWP-MW08	2	1441	8.35	79.25	79.38		
MCWP-MW09	2	1434	6.41	89.00	89.60		
MCWP-MW10	2	1018	7.82	22.17	22.23		
P-4	4	1004	7.23	10.33	14.57		
P-9	4	1000	7.05	13.28	13.90		
SMBRP-2	4	1400	8.66	24.82	24.88		
SMBRP-6	2	1338	14.84	23.37	23.45		
SMBRP-7B	2	1250	9.68	25.03	25.13		
SMBRP-8 (EC1-RC-MW01)	4	1130	26.30	40.29	40.46		
SMBRP-9	2	N/A	N/A	N/A	45.40		Parked on by Porch car
~~SMBRP-10C~~	—	—	—	—	~~25.00~~	—	—
SMBRP-12	2	1426	6.38	14.48	24.88		
SMBRP-13	2	1444	7.45	19.35	19.48		
SMBRP-15B	1	1452	DRY	8.40	8.40		
SMBRP-16	2	1220	2.57	25.00	25.00		
LAMW-5S	4	1115	57.54	73.51	73.43		
SMBRP-11	2	1426	8.45	20.05	20.38		
~~Lagoon~~	—	—	—	—	~~N/A~~	—	—

References:

ft bTOC – Feet below top of casing

Scanned with CamScanner

Well Gauging

Project No.: 20-09665
Date: 3/13/23

Rincon Personnel: Landon Lujan
Project Name: Malibu Civic Center GW Q1

Begin Time: 0805
End Time: 1400

Well Information

Well ID	Well Diameter (inches)	Time	Depth to Water (ft bTOC)	Total Depth (ft bTOC)		Well Condition	Notes
				Measured	Constructed / Historical		
C-1	4		DRY	5.70	14.50	Dcd	Submerged in large Puddle
C-2	4	1137	7.28	13.37	14.20	bad	no bolts/nut
CCPE	2	0820	8.62	50.79	52.70	good	
CCPNE	2	0825	8.75	24.06	24.08	bad	2x Bolts
CCPSW	2	0850	0815	20.98	19.90	bad	2x Bolts
~~CCW-4~~	1	1010	1.85	11.79	12.30	bad	2x2 ST
GH6-M1	2	1348	28.92	34.72	35.20	OK	NO bolts 2x Broken off inside tab
GH8-M3	2	1345	27.90	39.30	40.21	OK	NO bolts 2x Broken in tabs
~~GH9-M4~~	—	—			~~44.29~~	—	—
M6-1	2	1320	4.92	45.11	45.30	OK	
M6-2	2	1323	1.51	19.66	19.40	OK	
M7-1	2	1329	5.04	38.94	39.35	OK	
M7-2	2	1332	3.48	19.25	19.60	OK	
MBCMW-5	2	1335	17.82	18.22	19.40	OK	NO Bolts
~~MBCMW-6~~	—	—	—	—	~~64.26~~	—	—
MBCMW-7	2	0948	10.79	51.86	52.15		LID Non-securable, casing too long
MBCMW-8	2	0950	3.55	11.95	11.95		" " "
MBCMW-9	2	1017	4.95	9.31	9.25	bad	2x Bolt 2x ST
MBCMW-10	2	1020	8.40	51.25	51.75	bad	" " "
MCWP-MW01	6	0910	10.20	144.90	152.88	Bad	2x Bolts 2x Str Tabs WATER IN BOX
MCWP-MW02	4	0855	11.74	22.02	148.20	Bad	2x Bolts 2x Str TBS
MCWP-MW03	6	1220	7.32	132.62	136.65	BAD	NO Bolts, 2 Str TABS 6-inch new cap needed
MCWP-MW04S	4	0920	1.90	20.45	20.45	ok	1x Bolt

References:
ft bTOC – Feet below top of casing

Scanned with CamScanner

rincon

Well Gauging

Project No.: 20-09665

Date: 3/13/23

Well Information

Well ID	Well Diameter (inches)	Time	Depth to Water (ft bTOC)	Total Depth (ft bTOC)		Well Condition	Notes
				Measured	Constructed / Historical		
MCWP-MW04D	4	0915	9.38	145.22	149.20	B	2 Str Tabs
MCWP-MW05	4	1025	7.36	151.45	154.40	B	1 Broken Tab, 1 ST
MCWP-MW06	2	0858	9.63	135.89	138.15	bad	2x Bolts missing 2x Str Tabs
MCWP-MW07S	2	1215	5.23	17.15	17.22	BAD	2 Broken TABS 2x Bolts
MCWP-MW07D	2	1217	7.23	127.60	129.60		2 broken Tabs 2x Bolts
MCWP-MW08	2	1255	8.51	79.22	79.38	BAD	1 Broken Tab, 1 ST,
MCWP-MW09	2	1238	5.85	88.90	89.60	BND	1 Br. Tab, 1 Str. TAB water in Box
MCWP-MW10	2	1120	8.39	22.18	22.23		1 Br Tab 1 ST, water in box
P-4	4	0839	7.54	10.05	14.57	Bad	well box completely Destroyed
P-9	4	0830	7.95	13.27	13.90	bad	2x Bolts 2x ST
SMBRP-2	4	1200	8.72	24.82	24.88	OK	1 Str Tab 1 bolt Missing
SMBRP-6	2	1040	13.15	23.37	23.45		~~BAD~~ 1 bolt Missing
SMBRP-7B	2	1028	7.90	25.06	25.13		Cracked apron water in well Box
SMBRP-8 (EC1-RC-MW01)	4	0930	23.54	40.26	40.46	good	
SMBRP-9	2	1310	37.44	44.95	45.40	good	
~~SMBRP-10C~~	—	—	—	—	~~25.00~~	—	—
SMBRP-12	2	1235	6.68	24.39	24.88		2x ST.
SMBRP-13	2	1248	8.00	19.40	19.48	OK	2x TS.
SMBRP-15B	1	1300	DRY	8.44	8.40	BAD	NO LID
SMBRP-16	2	0945	0.10	25.00	25.00	bad	water in box Need new well well casing full to top ESB
LAMW-5S	4	0808	56.22	73.84	73.43	bad	2x ST
SMBRP-11	2	1225	7.65	20.03	20.38	OK	1 Bolt, 2 Str Tabs
~~Lagoon~~	—	—	—	—	~~N/A~~	—	—

References:
bTOC – Feet below top of casing

ST → Stripped Tabs

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/13/23

Rincon Personnel: London Lugan
Project Name: Malibu Civic Center annual GW
Weather Conditions: Cloudy
Well ID: MCWP-MW04S
Begin/End Time: 1400
Start Purge: 1414

Well and Purging Information

Total Well Depth (ft btoc):	20.45	Well Diameter (in):	4
Static Depth to Water (ft btoc):	2.24	Screened Interval (ft btoc):	—
Length of Water Column (ft):	18.21	Pump Inlet Depth (ft btoc):	20.0
One Casing Volume (gal):	11.84	3 Casing Volumes (gal):	35.52
DTW Indicator:	Solinst 102	Type of Pump:	E.S.

References:
0.5" Dia. = 0.01 gal/ft | 1" Dia. = 0.041 gal/ft | 2" Dia. = 0.16 gal/ft | 4" Dia. = 0.65 gal/ft | 6" Dia. = 1.46 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (mS/cm or µS/cm)	pH	Notes
1414	START	0						
1426	1.0	12.0	17.95	20.4	13	4.40	7.37	
1428		~~24.0~~ 36.0 LL	Dewatered @ 14.5 gallons - DTW - 19.55					
Parameters at Sampling:			2.30	18.6	5	4.03	7.38	

Target Well Recovery DTW: 5.70 = Static DTW 2.24 + (0.2 x Max. Drawdown 17.31)

Sample and Misc. Information

Sample Date: 3/14/23	Sample ID: MCWP-MW04S	Sampling Time: 0835
Did Well Dewater: (Yes) No	Field Meter Type: HANNA	Sampling Method: bail
Duplicate Collected: Yes (No)	Meter/Calibration Date: 3/13/23	Laboratory: Enthalpy
Duplicate ID: ——— @	Equipment Blank ID: ——— @	Number of Bottles: 11

Additional Notes:

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/13/23

Rincon Personnel: Landon Lyon
Project Name: Malibu Civic Center annual GW
Weather Conditions: Cloudy/Rainy
Well ID: SMBRP-11
Begin/End Time: 1610
Start Purge: 1615

Well and Purging Information

Total Well Depth (ft btoc):	20.03	Well Diameter (in):	2
Static Depth to Water (ft btoc):	7.68	Screened Interval (ft btoc):	—
Length of Water Column (ft):	12.42	Pump Inlet Depth (ft btoc):	19.5
One Casing Volume (gal):	1.99	3 Casing Volumes (gal):	5.97
DTW Indicator:	Solinst 102	Type of Pump:	E.S.

References: 1" Dia. = 0.041 gal/ft; 4" Dia. = 0.65 gal/ft; 0.5" Dia. = 0.01 gal/ft; 2" Dia. = 0.16 gal/ft; 6" Dia. = 1.46 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. ~~mS/cm~~ or µS/cm)	pH	Notes
1615	START	—	—	—	—	—	—	—
1618	0.75	2.0	8.37	18.9	33	2.22	7.49	
1621	|	4.0	9.30	19.5	69	2.21	7.17	
1623	|	6.0	11.23	20.0	183	2.25	7.10	
		~~8.0~~	1625 —	well dewatered —		~19.5	DTW	
Parameters at Sampling:			7.68	19.2	82	3029 µS/cm	7.08	
Target Well Recovery DTW:			9.98	= Static DTW 7.61		+ (0.2 x Max. Drawdown 11.89)		

Sample and Misc. Information

Sample Date: 3/14/23		Sample ID: SMBRP-11	Sampling Time: 0900
Did Well Dewater: (Yes) No		Field Meter Type: Hanna	Sampling Method: Bail
Duplicate Collected: Yes (No)		Meter/Calibration Date: 3/13/3/14/23	Laboratory: Entnalpy
Duplicate ID: —	@	Equipment Blank ID: — @	Number of Bottles: 5

Additional Notes: DTW on parameters off due to pump cable in way.

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/13/23

Rincon Personnel: Landon Lyon
Project Name: Malibu Civic Center annual GW
Weather Conditions:
Well ID: MBCMW-9
Begin/End Time: 1635
Start Purge: 1640

Well and Purging Information

Total Well Depth (ft btoc):	9.31	Well Diameter (in):	2
Static Depth to Water (ft btoc):	4.93	Screened Interval (ft btoc):	—
Length of Water Column (ft):	4.38	Pump Inlet Depth (ft btoc):	—
One Casing Volume (gal):	0.71	3 Casing Volumes (gal):	2.13
DTW Indicator:	Solinst 102	Type of Pump:	Bail

References:
0.5" Dia. = 0.01 gal/ft
1" Dia. = 0.041 gal/ft
2" Dia. = 0.16 gal/ft
4" Dia. = 0.65 gal/ft
6" Dia. = 1.46 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (~~mS/cm~~ or µS/cm)	pH	Notes
1645	0.22	1.0	6.60	17.0	43	4.87	6.86	
1649	↓	2.0	7.86	17.0	117	5.46	6.92	
1654		3.0	9.00	17.2 Dewatered	194	6.45	6.97	
Parameters at Sampling:			4.95	15.9	23	4.27	7.15	

Target Well Recovery DTW: 5.74 = Static DTW 4.93 + (0.2 x Max. Drawdown 4.07)

Sample and Misc. Information

Sample Date: 3/14/23	Sample ID: MBCMW-9	Sampling Time: 0950
Did Well Dewater: (Yes) No	Field Meter Type: Hanna	Sampling Method: Bail
Duplicate Collected: Yes (No)	Meter/Calibration Date: 3/14/23	Laboratory: Enthalpy
Duplicate ID: ——— @	Equipment Blank ID: ——— @	Number of Bottles:

Additional Notes:

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/10/23

Rincon Personnel: Landon L.
Project Name: Malibu Civic Center annual GW
Weather Conditions: Overcast
Well ID: LAMW-5S
Begin/End Time: 1520
Start Purge: 1527

Well and Purging Information

Total Well Depth (ft btoc):	73.84	Well Diameter (in):	4
Static Depth to Water (ft btoc):	56.18	Screened Interval (ft btoc):	—
Length of Water Column (ft):	17.66	Pump Inlet Depth (ft btoc):	78.0
One Casing Volume (gal):	11.48	3 Casing Volumes (gal):	34.44
DTW Indicator:	Solinst 102	Type of Pump:	E.S.

References: 0.5" Dia. = 0.01 gal/ft; 1" Dia. = 0.041 gal/ft; 2" Dia. = 0.16 gal/ft; 4" Dia. = 0.65 gal/ft; 6" Dia. = 1.46 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (mS/cm or µS/cm)	pH	Notes
1544	0.93	11.5	68.95	20.9	60	1.56	7.01	
1548	—	Dewatered @	17.5 gallons	—		DTW	73.80	—
							~~7.03~~	
Parameters at Sampling:		50.44	19.5	7		1925us	7.03	ms

Target Well Recovery DTW: 59.70 = Static DTW 56.18 + (0.2 x Max. Drawdown 17.62)

Sample and Misc. Information

Sample Date: 3/14/23	Sample ID: LAMW-5S	Sampling Time: 0815
Did Well Dewater: (Yes) No	Field Meter Type: HANNA	Sampling Method: Bailer
Duplicate Collected: Yes (No)	Meter/Calibration Date: 3/13/23	Laboratory: enthalpy
Duplicate ID: @	Equipment Blank ID: @	Number of Bottles: 5

Additional Notes:

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/14/23

Rincon Personnel: LANDON L.
Project Name: Malibu Civic Center ~~annual~~ GW Q1
Weather Conditions: Rain

Well ID: MCWP-MW075
Begin/End Time: 1020
Start Purge: 1029

Well and Purging Information

Total Well Depth (ft btoc):	17.15	Well Diameter (in):	2.
Static Depth to Water (ft btoc):	5.20	Screened Interval (ft btoc):	—
Length of Water Column (ft):	11.95	Pump Inlet Depth (ft btoc):	16.00
One Casing Volume (gal):	1.92	3 Casing Volumes (gal):	5.76
DTW Indicator:	Solinst 102	Type of Pump:	E.S.

References: 0.5" Dia. = 0.01 gal/ft; 1" Dia. = 0.041 gal/ft; 2" Dia. = 0.16 gal/ft; 4" Dia. = 0.65 gal/ft; 6" Dia. = 1.46 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (mS/cm or µS/cm)	pH	Notes
1033	0.29	2.0	11.03	18.4	51	1.99	7.54	
1041	↓	4.0	14.21	19.0	19	1.98	7.52	
1050	↓	6.0	16.00	19.0	7	1.96	7.51	
—	—	—	—	— Dewatered		@ 1051	—	—
Parameters at Sampling:			7.36	19.0	36	2.00	7.44	

Target Well Recovery DTW: 7.36 = Static DTW 5.20 + (0.2 x Max. Drawdown 10.8)

Sample and Misc. Information

Sample Date: 3/14/23	Sample ID: MCWP-MW075	Sampling Time: 1115
Did Well Dewater: (Yes) No	Field Meter Type: HANNA	Sampling Method: Ded. Tubing
Duplicate Collected: Yes (No)	Meter/Calibration Date: 3/14/23	Laboratory: Enthalpy
Duplicate ID: — @	Equipment Blank ID: — @	Number of Bottles: 11

Additional Notes:

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/14/23

Rincon Personnel: LANDON L.
Project Name: Malibu Civic Center ~~annual~~ GW Q1
Weather Conditions: Rain
Well ID: SMBRP-12
Begin/End Time: 1300
Start Purge: 1319

Well and Purging Information

Total Well Depth (ft btoc):	24.39	Well Diameter (in):	2
Static Depth to Water (ft btoc):	6.70	Screened Interval (ft btoc):	—
Length of Water Column (ft):	17.69	Pump Inlet Depth (ft btoc):	15.0
One Casing Volume (gal):	2.83	3 Casing Volumes (gal):	8.49
DTW Indicator:		Type of Pump:	

References: 1" Dia. = 0.041 gal/ft; 4" Dia. = 0.65 gal/ft; 0.5" Dia. = 0.01 gal/ft; 2" Dia. = 0.16 gal/ft; 6" Dia. = 1.46 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (mS/cm or µS/cm)	pH	Notes
1323	0.93	3.0	7.17	19.9	75	3.84	7.10	
1327	|	6.0	7.20	19.4	9	3.86	7.05	
1331	|	9.0	7.20	19.5	8	3.87	7.09	
1336	|	12.0	7.18	19.5	5	3.85	7.06	
Parameters at Sampling:			6.75	18.5	15	3.86	7.07	

Target Well Recovery DTW: 6.80 = Static DTW 6.70 + (0.2 x Max. Drawdown 0.5)

Sample and Misc. Information

Sample Date: 3/14/23	Sample ID: SMBRP-12	Sampling Time: 1350
Did Well Dewater: Yes (No)	Field Meter Type: HANNA	Sampling Method: Ded. tubing
Duplicate Collected: Yes (No)	Meter/Calibration Date: 3/14/23	Laboratory: Enthalpy
Duplicate ID: ——— @	Equipment Blank ID: ——— @	Number of Bottles: 11

Additional Notes:

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/14/23

Rincon Personnel: LANDON L.
Project Name: Malibu Civic Center annual GW
Weather Conditions: Rain
Well ID: SMBRP-13
Begin/End Time: 1425
Start Purge: 1436

Well and Purging Information

Total Well Depth (ft btoc):	19.40	Well Diameter (in):	2
Static Depth to Water (ft btoc):	8.05	Screened Interval (ft btoc):	—
Length of Water Column (ft):	11.35	Pump Inlet Depth (ft btoc):	12.0
One Casing Volume (gal):	1.82	3 Casing Volumes (gal):	5.46
DTW Indicator:	Solinst 102	Type of Pump:	E.S.

References: 1" Dia. = 0.041 gal/ft; 2" Dia. = 0.16 gal/ft; 4" Dia. = 0.65 gal/ft; 6" Dia. = 1.46 gal/ft; 0.5" Dia. = 0.01 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (~~mS/cm~~ or µS/cm)	pH	Notes
1438	0.84	2.0	8.11	17.7	9	8.13	6.99	
1441	|	4.0	8.11	18.0	10	10.00	6.94	
1444	|	6.0	8.11	18.2	7	11.18	6.90	
1446	|	8.0	8.11	18.3	5	11.69	6.87	
1450	|	10.0	8.12	18.3	5	12.0	6.89	
							~~7.36~~	
Parameters at Sampling:			6.60	16.0	15	0.54	7.36	

Target Well Recovery DTW: 8.06 = Static DTW 8.05 + (0.2 x Max. Drawdown 0.07)

Sample and Misc. Information

Sample Date: 3/15/23	Sample ID: SMBRP-13	Sampling Time: 0830
Did Well Dewater: Yes (No)	Field Meter Type: HANNA	Sampling Method: Bail
Duplicate Collected: Yes (No)	Meter/Calibration Date: 3/15/23	Laboratory: Enthalpy
Duplicate ID: — @	Equipment Blank ID: — @	Number of Bottles: 5

Additional Notes: Some water in well box

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665

Date: 3/14/23

Rincon Personnel:	LANDON L.	**Well ID:**	SMBRP-7B
Project Name:	Malibu Civic Center annual GW	**Begin/End Time:**	0915
Weather Conditions:	Rain	**Start Purge:**	0921

Well and Purging Information

Total Well Depth (ft btoc):	25.06	**Well Diameter (in):**	2
Static Depth to Water (ft btoc):	7.84	**Screened Interval (ft btoc):**	—
Length of Water Column (ft):	17.22	**Pump Inlet Depth (ft btoc):**	24.0
One Casing Volume (gal):	2.76	**3 Casing Volumes (gal):**	8.28
DTW Indicator:	Solinst 102	**Type of Pump:**	E.S.

Notes: 1" Dia. = 0.041 gal/ft; 4" Dia. = 0.65 gal/ft; dia. = 0.01 gal/ft; 2" Dia. = 0.16 gal/ft; 6" Dia. = 1.46 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (mS/cm or µS/cm)	pH	Notes
0925	0.67	3.0	12.95	18.9	51	0.8	7.63	
0929	|	6.0	16.91	20.0	33	1.54	7.22	
0933	|	9.0	19.80	20.4	34	2.54	7.15	
	|	~~12.0~~ 24.0		20.4	325	2.46	7.17	
	——	Drawdown	@0939	→ DTW: 24.0 + 0.12 gallons				
Parameters at Sampling:		11.07	19.5	95	2.78	7.25		
Target Well Recovery DTW:		11.07	= Static DTW 7.84 + (0.2 x Max. Drawdown 16.16)					

Sample and Misc. Information

Sample Date:	3/14/23	**Sample ID:**	SMBRP-7B	**Sampling Time:**	1155
Did Well Dewater:	(Yes) No	**Field Meter Type:**	HANNA	**Sampling Method:**	Bailer
Duplicate Collected:	Yes (No)	**Meter/Calibration Date:**	3/14/23	**Laboratory:**	Enthalpy
Duplicate ID:	—— @	**Equipment Blank ID:**	—— @	**Number of Bottles:**	5

Additional Notes:

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/14/23

Rincon Personnel: LANDON L.
Project Name: Malibu Civic Center annual GW
Weather Conditions: Rain
Well ID: MCWP-MW07d
Begin/End Time: 1020
Start Purge: 1029

Well and Purging Information

Total Well Depth (ft btoc):	127.60	Well Diameter (in):	2
Static Depth to Water (ft btoc):	8.04	Screened Interval (ft btoc):	25.0
Length of Water Column (ft):	119.56	Pump Inlet Depth (ft btoc):	
One Casing Volume (gal):	19.13	3 Casing Volumes (gal):	57.39
DTW Indicator:	Solinst 102	Type of Pump:	E.S.

References: 1" Dia. = 0.041 gal/ft; 4" Dia. = 0.65 gal/ft; 0.5" Dia. = 0.01 gal/ft; 2" Dia. = 0.16 gal/ft; 6" Dia. = 1.46 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (mS/cm or µS/cm)	pH	Notes
1050	1.25	20.0	7.85	21.6	3	1.82	7.50	
1105	1	40.0	7.85	21.8	2	1.87	7.48	
1117	1	60.0	7.85	21.4	2	1.86	7.47	
Parameters at Sampling:			8.04	21.4	2	1.85	7.47	

Target Well Recovery DTW: 8.04 = Static DTW 8.04 + (0.2 x Max. Drawdown 0.0)

Sample and Misc. Information

Sample Date: 3/14/23	Sample ID: MCWP-MW07d	Sampling Time: 1125
Did Well Dewater: Yes (No)	Field Meter Type: HANNA	Sampling Method: Ded. Tubing
Duplicate Collected: Yes (No)	Meter/Calibration Date: 3/14/23	Laboratory: Enthalpy
Duplicate ID: —@	Equipment Blank ID: —@	Number of Bottles: 11

Additional Notes:

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665

Date: ~~3/14/23~~ 3/14/23

Rincon Personnel: LINDON LYNN / KRISTINA C.
Project Name: Malibu Civic Center annual GW
Weather Conditions: CLOUDY
Well ID: MCWP-MW09
Begin/End Time: 1300
Start Purge: 1315

Well and Purging Information

Total Well Depth (ft btoc):	88.90	Well Diameter (in):	2
Static Depth to Water (ft btoc):	6.06	Screened Interval (ft btoc):	—
Length of Water Column (ft):	82.84	Pump Inlet Depth (ft btoc):	20.0
One Casing Volume (gal):	13.26	3 Casing Volumes (gal):	39.78
DTW Indicator:	Solinst 102	Type of Pump:	E.S.

References: 1" Dia. = 0.041 gal/ft; 2" Dia. = 0.16 gal/ft; 4" Dia. = 0.65 gal/ft; 6" Dia. = 1.46 gal/ft; 0.5" Dia. = 0.01 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (mS/cm or µS/cm)	pH	Notes
1327	1.06	13.5	6.63	19.3	2	3233	8.23	
1342	|	27.0	6.58	19.7	1	3294	7.74	
1353	|	40.5	6.18	20.2	1	3328	7.70	
1406	⊥	54.0	6.16	20.0	1	3365	7.75	

Parameters at Sampling:	6.23	20.4	2	3376	7.69	
Target Well Recovery DTW:	6.17	= Static DTW 6.06	+ (0.2 x Max. Drawdown 0.57)			

Sample and Misc. Information

Sample Date: 3/14/23		Sample ID: MCWP-MW09	Sampling Time: 1415
Did Well Dewater:	Yes (No)	Field Meter Type: HANNA	Sampling Method: Ded. tubing
Duplicate Collected:	Yes (No)	Meter/Calibration Date: 3/14/23	Laboratory: Enthalpy
Duplicate ID:	@	Equipment Blank ID:	@ Number of Bottles:

Additional Notes:

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/15/23

Rincon Personnel: LANDON L./KRYSTINA C.
Project Name: Malibu Civic Center annual GW
Weather Conditions: Misting/Cloudy

Well ID: MCWP-MW06
Begin/End Time: 0750
Start Purge: 0807

Well and Purging Information

Total Well Depth (ft btoc):	135.89	Well Diameter (in):	2
Static Depth to Water (ft btoc):	8.37	Screened Interval (ft btoc):	—
Length of Water Column (ft):	127.52	Pump Inlet Depth (ft btoc):	40.0
One Casing Volume (gal):	20.41	3 Casing Volumes (gal):	61.23
DTW Indicator:	Solinst 102	Type of Pump:	E.S.

References:
0.5" Dia. = 0.01 gal/ft | 1" Dia. = 0.041 gal/ft | 2" Dia. = 0.16 gal/ft | 4" Dia. = 0.65 gal/ft | 6" Dia. = 1.46 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (mS/cm or µS/cm)	pH	Notes
0824	1.91	21	8.48	18.4	0	2084	7.74	
0842	1	42	8.50	18.8	~~0~~ 1	2174	7.65	
0857	1	63	8.52	19.1	1	2213	7.70	
Parameters at Sampling:			8.53	19.2	1	2246	7.70	
Target Well Recovery DTW:			8.90	= Static DTW 9.37		+ (0.2 x Max. Drawdown 0.95)		

Sample and Misc. Information

Sample Date: 3/15/23		Sample ID: MCWP-MW06	Sampling Time: 0905
Did Well Dewater:	Yes (No)	Field Meter Type: Hanna	Sampling Method: Ded. Tubing
Duplicate Collected:	Yes (No)	Meter/Calibration Date: 3/15/23	Laboratory: Enthalpy
Duplicate ID: ———	@	Equipment Blank ID: ——— @	Number of Bottles: 2

Additional Notes:

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/15/23

Rincon Personnel: Landon L.
Project Name: Malibu Civic Center annual GW
Weather Conditions: Cloudy / Misty
Well ID: MCWP-MW 10
Begin/End Time: 0920
Start Purge: 0930

Well and Purging Information

Total Well Depth (ft btoc):	22.18	Well Diameter (in):	2
Static Depth to Water (ft btoc):	7.67	Screened Interval (ft btoc):	——
Length of Water Column (ft):	14.51	Pump Inlet Depth (ft btoc):	11.0
One Casing Volume (gal):	2.33	3 Casing Volumes (gal):	6.99
DTW Indicator:	Solinst 102	Type of Pump:	E.S.

References:
0.5" Dia. = 0.01 gal/ft
1" Dia. = 0.041 gal/ft
2" Dia. = 0.16 gal/ft
4" Dia. = 0.65 gal/ft
6" Dia. = 1.46 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (mS/cm or µS/cm)	pH	Notes
0933	1.07	2.5	7.77	19.4	2	3.20	7.35	
0937	↓	5.0	~~7.77~~	19.6	1	3.22	7.34	DTW: 7.78
0940	↓	7.5	7.77	20.0	0	3.24	7.33	
Parameters at Sampling:			7.67	20.1	1	3.26	7.34	

Target Well Recovery DTW: 7.69 = Static DTW 7.67 + (0.2 x Max. Drawdown 0.1)

Sample and Misc. Information

Sample Date: 3/15/23	Sample ID: MCWP-MW10	Sampling Time: 0950
Did Well Dewater: Yes (No)	Field Meter Type: Hanna	Sampling Method: Ded. Tubing
Duplicate Collected: Yes (No)	Meter/Calibration Date: 3/15/23	Laboratory: Enthalpy
Duplicate ID: ——— @	Equipment Blank ID: ——— @	Number of Bottles: 5

Additional Notes:

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/15/23

Rincon Personnel: LANDON L.
Well ID: ~~MCWP-MW04D~~ MCWP-MW04D
Project Name: Malibu Civic Center annual GW
Begin/End Time: 1000
Weather Conditions: MISTY
Start Purge: 1016

Well and Purging Information

Total Well Depth (ft btoc):	~~127.60~~ 145.22	Well Diameter (in):	4
Static Depth to Water (ft btoc):	8.32	Screened Interval (ft btoc):	—
Length of Water Column (ft):	136.90	Pump Inlet Depth (ft btoc):	150
One Casing Volume (gal):	89.99	3 Casing Volumes (gal):	266.95
DTW Indicator:	Solinst 102	Type of Pump:	E.S. x2

References:
0.5" Dia. = 0.01 gal/ft
1" Dia. = 0.041 gal/ft
2" Dia. = 0.16 gal/ft
4" Dia. = 0.65 gal/ft
6" Dia. = 1.46 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond (mS/cm or µS/cm)	pH	Notes
1047	5.45	89	8.32	19.1	1	2.22	7.43	
1114	1	178	8.38	19.5	0	2.23	7.37	
1136	1	267	8.32	19.3	1	2.22	7.35	
Parameters at Sampling:			8.32	19.2	0	2.42	7.37	

Target Well Recovery DTW: 8.32 = Static DTW 8.32 + (0.2 x Max. Drawdown 0)

Sample and Misc. Information

Sample Date: 3/15/23		Sample ID: MCWP-MW04D	Sampling Time: 1145
Did Well Dewater:	Yes (No)	Field Meter Type: HANNA	Sampling Method: Ded. tubing
Duplicate Collected:	Yes (No)	Meter/Calibration Date: 3/15/23	Laboratory: Enthalpy
Duplicate ID:	@	Equipment Blank ID:	@ Number of Bottles: 11

Additional Notes:
- Needs New Dedicated tubing, Crack in tubing
- Water in well box, needs new well cap

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/16/23

Rincon Personnel: LANDON L.
Project Name: Malibu Civic Center ~~annual~~ GW Q1
Weather Conditions: Cloudy

Well ID: MCWP-MW05
Begin/End Time: 1010
Start Purge: 1019

Well and Purging Information

Total Well Depth (ft btoc):	151.45	Well Diameter (in):	4
Static Depth to Water (ft btoc):	6.17	Screened Interval (ft btoc):	—
Length of Water Column (ft):	145.28	Pump Inlet Depth (ft btoc):	25.0
One Casing Volume (gal):	94.44	3 Casing Volumes (gal):	283.32
DTW Indicator:	Solinst 102	Type of Pump:	E.S. x2

References: 0.5" Dia. = 0.01 gal/ft; 1" Dia. = 0.041 gal/ft; 2" Dia. = 0.16 gal/ft; 4" Dia. = 0.65 gal/ft; 6" Dia. = 1.46 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (mS/cm or µS/cm)	pH	Notes
1050	3.1	95.0	6.25	18.6	0	2.09	7.21	
1125	1	190.0	6.28	18.4	0	2.08	7.20	Pump Malfunction/switch Pumps
1222	1	285.0	6.35	17.8	0	2.08	7.21	
Parameters at Sampling:			6.18	18.2	0	2.06	7.22	

Target Well Recovery DTW: 6.20 = Static DTW 6.17 + (0.2 x Max. Drawdown 0.18)

Sample and Misc. Information

Sample Date: 3/16/23	Sample ID: MCWP-MW05	Sampling Time: 1230
Did Well Dewater: Yes (No)	Field Meter Type: HANNA	Sampling Method: Ded. Tubing
Duplicate Collected: Yes (No)	Meter/Calibration Date: 3/16/23	Laboratory: Enthalpy
Duplicate ID: — @	Equipment Blank ID: — @	Number of Bottles: 2

Additional Notes:

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/16/23

Rincon Personnel: LANDON L.
Project Name: Malibu Civic Center ~~annual~~ GW Q1
Weather Conditions: CLOUDY
Well ID: CCPE
Begin/End Time: 0920
Start Purge: 0928

Well and Purging Information

Total Well Depth (ft btoc):	50.79	Well Diameter (in):	2
Static Depth to Water (ft btoc):	8.90	Screened Interval (ft btoc):	—
Length of Water Column (ft):	41.89	Pump Inlet Depth (ft btoc):	15.0
One Casing Volume (gal):	6.70	3 Casing Volumes (gal):	20.1
DTW Indicator:	Solinst 102	Type of Pump:	E.S.

References: 1" Dia. = 0.041 gal/ft; 2" Dia. = 0.16 gal/ft; 4" Dia. = 0.65 gal/ft; 6" Dia. = 1.46 gal/ft; 0.5" Dia. = 0.01 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (mS/cm or µS/cm)	pH	Notes
0934	1.75	7.0	8.90	18.1	1	2.17	7.16	
0940		14.0	8.90	18.2	0	2.16	7.14	
0946		21.0	8.90	18.3	0	2.16	7.09	
Parameters at Sampling:			8.90	18.3	0	2.17	7.21	

Target Well Recovery DTW: 8.90 = Static DTW 8.90 + (0.2 x Max. Drawdown 0)

Sample and Misc. Information

Sample Date: 3/16/23	Sample ID: CCPE	Sampling Time: 0950
Did Well Dewater: Yes (No)	Field Meter Type: HANNA	Sampling Method: Ded. Tubing
Duplicate Collected: Yes (No)	Meter/Calibration Date: 3/16/23	Laboratory: Enthalpy
Duplicate ID: —@	Equipment Blank ID: —@	Number of Bottles: 5

Additional Notes:

Scanned with CamScanner

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 3/16/23

Rincon Personnel: L ANDON L.
Project Name: Malibu Civic Center ~~annual~~ GW Q1
Weather Conditions: Cloudy

Well ID: SMBRP-9
Begin/End Time: 0800
Start Purge: 0816

Well and Purging Information

Total Well Depth (ft btoc):	44.95	Well Diameter (in):	2
Static Depth to Water (ft btoc):	37.34	Screened Interval (ft btoc):	—
Length of Water Column (ft):	7.61	Pump Inlet Depth (ft btoc):	43.8
One Casing Volume (gal):	1.22	3 Casing Volumes (gal):	3.65
DTW Indicator:	Solinst 102	Type of Pump:	E.S.

References:
0.5" Dia. = 0.01 gal/ft 1" Dia. = 0.041 gal/ft 2" Dia. = 0.16 gal/ft 4" Dia. = 0.65 gal/ft 6" Dia. = 1.46 gal/ft

Purge and Indicator Data

Purge Time	Flow Rate (gal/min)	Volume Purged (gal)	DTW (ft btoc)	Temp. (C)	Turbidity (NTU)	Cond. (mS/cm or µS/cm)	pH	Notes
0820	0.58	1.5	40.65	21.4	23	2.62	6.98	
0824	|	3.0	41.40	21.7	12	2.59	7.13	
0827	|	4.5	42.59	21.9	20	2.58	7.16	
0830	|	6.0	43.40	21.8	53	2.58	7.20	
0833	—	7.5	43.80	— Dewatered —				
Parameters at Sampling:			37.83	21.9	18	2.27	7.17	
Target Well Recovery DTW:			38.63	= Static DTW 37.34 + (0.2 x Max. Drawdown 6.46)				

Sample and Misc. Information

Sample Date: 3/16/23	Sample ID: SMBRP-9	Sampling Time: 0900
Did Well Dewater: (Yes) No	Field Meter Type: HANNA	Sampling Method: Ped. tubing
Duplicate Collected: Yes (No)	Meter/Calibration Date: 3/16/23	Laboratory: Enthalpy
Duplicate ID: ——— @	Equipment Blank ID: ——— @	Number of Bottles: 11

Additional Notes:

Scanned with CamScanner

Surface Water Sampling

Job No: 20-09665	**Event:** First Quarter
Project: Malibu CCWTF	**Date:** March 15, 2023
Location: Malibu, CA	**Sampled By:** Lindsey Stockton

CONDITIONS

Weather: Overcast	**Wind:** Slight Breeze
Estuary Berm: Open	

DAILY TIDES

LOW	Time: 11:59	Feet: -0.08	**HIGH**	Time: 03:21	Feet: 4.27

VISUAL OBSERVATIONS

Location	Time	Sea State	Water Clarity	Water Color	Odors	Floatables	Birds/Wildlife
							Type, # On Land # In Water
N-001	10:50	Calm	Clear	Clear	None	None	N/A, ,
N-002	11:00	Calm	Clear	Clear	None	None	N/A, ,
N-003	11:15	Calm	Clear	Clear	None	None	N/A, ,
N-004	10:00	Calm	Cloudy	Clear	None	None	N/A, ,
L-001	12:00	Calm	Cloudy	Brown	None	None	N/A, ,
L-002	12:15	Calm	Cloudy	Brown	None	None	N/A, ,
L-003	12:25	Calm	Cloudy	Brown	None	None	N/A, ,
L-004	11:40	Calm	Cloudy	Brown	None	None	Pelican , 15, 0
L-005	11:25	Calm	Cloudy	Brown	None	None	N/A, ,
L-006	10:25	Calm	Cloudy	Brown	None	Garbage	N/a, ,

Appendix B

Analytical Laboratory Reports

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

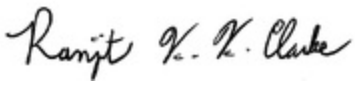
Lab Job Number:	481518
Report Level:	II
Report Date:	03/28/2023

Analytical Report *prepared for:*

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Project: MALIBU - Malibu - Semi-Annual

Authorized for release by:



Ranjit K Clarke, Client Services Manager
(714) 771-9906
Ranjit.Clarke@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #:	481518
Project No:	MALIBU
Location:	Malibu - Semi-Annual
Date Received:	03/14/23

Sample ID	Lab ID	Collected	Matrix
SMBRP-12	481518-001	03/14/23 13:50	Water
MCWP-MW04S	481518-002	03/14/23 08:35	Water
MCWP-MW07S	481518-003	03/14/23 11:15	Water
MCWP-MW07D	481518-004	03/14/23 11:25	Water
MCWP-MW09	481518-005	03/14/23 14:15	Water

Case Narrative

Rincon Consultants - Ventura 2060 Knoll Drive Unit B Ventura, CA 93001 Kiernan Brtalik	Lab Job Number: 481518 Project No: MALIBU Location: Malibu - Semi-Annual Date Received: 03/14/23

This data package contains sample and QC results for five water samples, requested for the above referenced project on 03/14/23. The samples were received cold and intact.

Metals (EPA 200.8):
No analytical problems were encountered.

Ion Chromatography (EPA 300.0):

- Chloride and nitrogen, nitrate were detected between the MDL and the RL in the method blank for batch 309714; these analytes were either not detected in samples at or above the RL, or detected at a level at least 10 times that of the blank.
- No other analytical problems were encountered.

Total Carbon by High-Temperature Combust (SM 5310B):
No analytical problems were encountered.

Total Phosphorus as P (SM 4500-P-B5-E):
No analytical problems were encountered.

Total Nitrogen, by Calculation (TOTAL NITROGEN):
No analytical problems were encountered.

Organic Nitrogen, by Calculation (ORGANIC NITROGEN):
No analytical problems were encountered.

Total Dissolved Solids (TDS) (SM2540C):
No analytical problems were encountered.

Total Suspended Solids (TSS) (SM2540D):
No analytical problems were encountered.

Free Chlorine (SM 4500-CL-G):
No analytical problems were encountered.

pH of Aqueous Samples (SM 4500-H+ B):
No analytical problems were encountered.

Odor (SM 2150B):
No analytical problems were encountered.

Turbidity (SM2130B):
No analytical problems were encountered.

Color by Visual Comparison (SM2120B):
No analytical problems were encountered.

Total Coliform / E. coli by Quanti-Tray (SM 9223Bb):
No analytical problems were encountered.

Ammonia and TKN- Semi-Automated Method (SM 4500-NH3-G):

- Low recovery was observed for nitrogen, total kjeldahl in the MSD for batch 309979; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits.
- No other analytical problems were encountered.

EPA 1664A Total O&G - OUT (EPA 1664A):
Eurofins Southwest in Tustin, CA performed the analysis (see sublab report section for certifications). Please see the Eurofins Southwest case narrative.

BOD (SM 5210B):
Eurofins Southwest in Tustin, CA performed the analysis (see sublab report section for certifications). Please see the Eurofins Southwest case narrative.

Surfactants (MBAS) (SM5540C):
Eurofins Southwest in Tustin, CA performed the analysis (see sublab report section for certifications). Please see the Eurofins Southwest case narrative.

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
931 W. Barkley Ave., Orange, CA 92868	Lab No: 481518	Standard: X / 4 Day: / 3 Day:
Phone: (714) 771-6900 Fax: (714) 538-1209	Page: 1 of 1	2 Day: / 1 Day: / Same Day:
Billing: ~~Enthalpy - SoCal~~	Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other
c/o Montrose Environmental Group		
1 Park Plaza, Suite 1000, Irvine, CA 92614		

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Name:	~~Malibu - Semi-Annual~~
Report To:	Kiernan Brtalik	Number:	
Email:		P.O. #:	
Address:	180 N. Ashwood Ave.	Address:	
	Ventura, CA 93003		
Phone:		Global ID:	
Cell:		Sampled By:	LANDON L./KRYSTINA K.

Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Total /Fecal Coliforms - SM 9223 Quantitray	EPA 200.7 (B)	EPA 300.0: Cl,NO2,NO3,SO4	TKN; NH3; Phosphorus	SM 5310C TOC; BOD; TSS; TDS	pH; Residual Cl; MBAS; Turbidity; Color; Odor	EPA 1664A Oil & Grease	Organic Nitrogen, Total Nitrogen
~~SMBRP-9~~													
SMBRP-12	3/14/23	1350	GW	11		X	X	X	X	X	X	X	X
MCWP-MW04S	3/14/23	0835	GW	11		X	X	X	X	X	X	X	X
~~MCWP-MW04D~~													
MCWP-MW07S	3/14/23	1115	GW	11		X	X	X	X	X	X	X	X
MCWP-MW07D	3/14/23	1125	GW	11		X	X	X	X	X	X	X	X
MCWP-MW09	3/14/23	1415	GW	11		X	X	X	X	X	X	X	X

Test Instructions / Comments:

3 Coolers
3.5/2.6
5.5/3.2
4.8/2.7

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	[signature]	Krystina Collins	Rincon	3/14/23 1430
1 Received By:	[signature]	GEAWAY	EA	3.14.23 1430
2 Relinquished By:	[signature]	GEAWAY	EA	3.14.23 1653
2 Received By:	[signature]	~~ZACH~~ DANIELA	EA/GL	3/14/23 1653
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants Project: _____

Date Received: 3/14/23 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 3 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 3.5 #2: 5.5 #3: 4.8 #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 2.6 #2: 3.2 #3: 2.7 #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✔		
Are sample IDs present?	✔		
Are sampling dates & times present?	✔		
Is a relinquished signature present?	✔		
Are the tests required clearly indicated on the COC?	✔		
Are custody seals present?		✔	
If custody seals are present, were they intact?			✔
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	✔		
Did all samples arrive intact? If no, indicate in Section 4 below.	✔		
Did all bottle labels agree with COC? (ID, dates and times)	✔		
Were the samples collected in the correct containers for the required tests?	✔		
Are the containers labeled with the correct preservatives?	✔		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✔
Was a sufficient amount of sample submitted for the requested tests?	✔		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 3/14/23

ENTHALPY ANALYTICAL

Analysis Results for 481518

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #: 481518
Project No: MALIBU
Location: Malibu - Semi-Annual
Date Received: 03/14/23

Sample ID: SMBRP-12 **Lab ID: 481518-001** **Collected: 03/14/23 13:50**
Matrix: Water

481518-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.8 Prep Method: EPA 200.8										
Boron	**860**		ug/L	50	6.1	10	309769	03/15/23	03/15/23	JCP
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**640**		mg/L	10	0.26	10	309714	03/14/23 17:04	03/15/23 01:44	RKV
Nitrogen, Nitrite	**0.02**	J	mg/L	0.10	0.008	1	309714	03/14/23 17:04	03/15/23 01:25	RKV
Nitrogen, Nitrate	**0.006**	B,J	mg/L	0.10	0.005	1	309714	03/14/23 17:04	03/15/23 01:25	RKV
Sulfate	**510**		mg/L	10	1.4	10	309714	03/14/23 17:04	03/15/23 01:44	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	**12**		mg/L	2.0	0.35	5	309979	03/17/23	03/17/23	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**2.8**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 2150B										
Odor	ND		TON	1.0		1	309730	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM 4500-CL-G										
Chlorine, Total Residual	ND	H	mg/L	0.10	0.026	1	309965	03/16/23 12:23	03/16/23 12:23	ATP
Method: SM 4500-H+ B										
pH	**6.89**	H	SU			1	309793	03/15/23 12:37	03/15/23 12:37	JRT
Temperature	**20.10**	H	deg C	1.00		1	309793	03/15/23 12:37	03/15/23 12:37	JRT
Method: SM 4500-NH3-G										
Ammonia-N	**9.2**		mg/L	2.0	0.90	20	310320	03/23/23	03/23/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**1.1**		mg/L	0.040	0.011	2	310106	03/22/23	03/22/23	ATP
Method: SM 5310B										
Total Organic Carbon	**8.4**		mg/L	1.0	0.23	1	310081	03/18/23	03/18/23	PWM
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Coliform, Total	**16**		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Method: SM2120B										
Color	**35**		ColorUnits	5		1	309731	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM2130B										
Turbidity	**26**		NTU	0.10	0.02	1	309729	03/14/23 18:52	03/14/23 18:52	LVL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481518

481518-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**2,300**		mg/L	20		2	309897	03/16/23	03/17/23	GKD
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	**17**		mg/L	0.6		1.1	309927	03/16/23	03/16/23	DNA
Method: TOTAL NITROGEN										
Total Nitrogen	**12**		mg/L			1	310589	03/27/23	03/27/23	SLL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481518

Sample ID: MCWP-MW04S	Lab ID: 481518-002	Collected: 03/14/23 08:35
	Matrix: Water	

481518-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.8 Prep Method: EPA 200.8										
Boron	**1,100**		ug/L	50	6.1	10	309769	03/15/23	03/15/23	JCP
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**220**		mg/L	10	0.26	10	309714	03/14/23 17:04	03/15/23 02:23	RKV
Nitrogen, Nitrite	**0.06**	J	mg/L	0.10	0.008	1	309714	03/14/23 17:04	03/15/23 02:03	RKV
Nitrogen, Nitrate	**1.4**		mg/L	0.10	0.005	1	309714	03/14/23 17:04	03/15/23 02:03	RKV
Sulfate	**1,400**		mg/L	50	6.8	50	310422	03/24/23 13:48	03/24/23 23:35	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	**0.72**		mg/L	0.40	0.070	1	309979	03/17/23	03/17/23	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.72**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 2150B										
Odor	ND		TON	1.0		1	309730	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM 4500-CL-G										
Chlorine, Total Residual	ND	H	mg/L	0.10	0.026	1	309965	03/16/23 12:23	03/16/23 12:23	ATP
Method: SM 4500-H+ B										
pH	**7.27**	H	SU			1	309793	03/15/23 12:37	03/15/23 12:37	JRT
Temperature	**20.30**	H	deg C	1.00		1	309793	03/15/23 12:37	03/15/23 12:37	JRT
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.27**		mg/L	0.020	0.0054	1	310106	03/22/23	03/22/23	ATP
Method: SM 5310B										
Total Organic Carbon	**5.1**		mg/L	1.0	0.23	1	310081	03/18/23	03/18/23	PWM
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Coliform, Total	**390**		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Method: SM2120B										
Color	**35**		ColorUnits	5		1	309731	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM2130B										
Turbidity	**3.4**		NTU	0.10	0.02	1	309729	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**3,200**		mg/L	20		2	309897	03/16/23	03/17/23	GKD
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	**4.3**		mg/L	0.6		1.1	309927	03/16/23	03/16/23	DNA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481518

481518-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: TOTAL NITROGEN										
Total Nitrogen	**2.2**		mg/L			1	310589	03/27/23	03/27/23	SLL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481518

Sample ID: MCWP-MW07S	Lab ID: 481518-003	Collected: 03/14/23 11:15
	Matrix: Water	

481518-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.8 Prep Method: EPA 200.8										
Boron	**330**		ug/L	50	6.1	10	309769	03/15/23	03/15/23	JCP
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**190**		mg/L	10	0.26	10	309714	03/14/23 17:04	03/15/23 03:02	RKV
Nitrogen, Nitrite	**0.03**	J	mg/L	0.10	0.008	1	309714	03/14/23 17:04	03/15/23 02:42	RKV
Nitrogen, Nitrate	**3.7**		mg/L	0.10	0.005	1	309714	03/14/23 17:04	03/15/23 02:42	RKV
Sulfate	**240**		mg/L	10	1.4	10	309714	03/14/23 17:04	03/15/23 03:02	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	**0.33**	J	mg/L	0.40	0.070	1	309979	03/17/23	03/17/23	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.17**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 2150B										
Odor	ND		TON	1.0		1	309730	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM 4500-CL-G										
Chlorine, Total Residual	ND	H	mg/L	0.10	0.026	1	309965	03/16/23 12:23	03/16/23 12:23	ATP
Method: SM 4500-H+ B										
pH	**7.37**	H	SU			1	309793	03/15/23 12:37	03/15/23 12:37	JRT
Temperature	**20.30**	H	deg C	1.00		1	309793	03/15/23 12:37	03/15/23 12:37	JRT
Method: SM 4500-NH3-G										
Ammonia-N	**0.16**		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.29**		mg/L	0.020	0.0054	1	310106	03/22/23	03/22/23	ATP
Method: SM 5310B										
Total Organic Carbon	**7.6**		mg/L	1.0	0.23	1	310081	03/18/23	03/18/23	PWM
Method: SM 9223Bb										
Fecal Coliform	**1.0**		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Coliform, Total	**30**		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Method: SM2120B										
Color	**25**		ColorUnits	5		1	309731	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM2130B										
Turbidity	**23**		NTU	0.10	0.02	1	309729	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**1,200**		mg/L	20		2	309897	03/16/23	03/17/23	GKD
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	**12**		mg/L	0.6		1.1	309927	03/16/23	03/16/23	DNA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481518

481518-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: TOTAL NITROGEN										
Total Nitrogen	**4.1**		mg/L			1	310589	03/27/23	03/27/23	SLL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481518

Sample ID: MCWP-MW07D	Lab ID: 481518-004	Collected: 03/14/23 11:25
	Matrix: Water	

481518-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.8 Prep Method: EPA 200.8										
Boron	**360**		ug/L	50	6.1	10	309769	03/15/23	03/15/23	JCP
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**220**		mg/L	10	0.26	10	309714	03/14/23 17:04	03/15/23 03:40	RKV
Nitrogen, Nitrite	**0.01**	J	mg/L	0.10	0.008	1	309714	03/14/23 17:04	03/15/23 03:21	RKV
Nitrogen, Nitrate	**0.01**	B,J	mg/L	0.10	0.005	1	309714	03/14/23 17:04	03/15/23 03:21	RKV
Sulfate	**290**		mg/L	10	1.4	10	309714	03/14/23 17:04	03/15/23 03:40	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	**0.41**		mg/L	0.40	0.070	1	309979	03/17/23	03/17/23	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.17**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 2150B										
Odor	ND		TON	1.0		1	309730	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM 4500-CL-G										
Chlorine, Total Residual	ND	H	mg/L	0.10	0.026	1	309965	03/16/23 12:23	03/16/23 12:23	ATP
Method: SM 4500-H+ B										
pH	**7.35**	H	SU			1	309793	03/15/23 12:37	03/15/23 12:37	JRT
Temperature	**20.30**	H	deg C	1.00		1	309793	03/15/23 12:37	03/15/23 12:37	JRT
Method: SM 4500-NH3-G										
Ammonia-N	**0.24**		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.14**		mg/L	0.020	0.0054	1	310106	03/22/23	03/22/23	ATP
Method: SM 5310B										
Total Organic Carbon	**5.4**		mg/L	1.0	0.23	1	310081	03/18/23	03/18/23	PWM
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Coliform, Total	**100**		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Method: SM2120B										
Color	**10**		ColorUnits	5		1	309731	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM2130B										
Turbidity	**0.64**		NTU	0.10	0.02	1	309729	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**1,100**		mg/L	20		2	309897	03/16/23	03/17/23	GKD
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	**4.2**		mg/L	0.6		1.1	309927	03/16/23	03/16/23	DNA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481518

481518-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: TOTAL NITROGEN										
Total Nitrogen	**0.43**		mg/L			1	310589	03/27/23	03/27/23	SLL

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481518

Sample ID: MCWP-MW09	Lab ID: 481518-005	Collected: 03/14/23 14:15
	Matrix: Water	

481518-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.8 Prep Method: EPA 200.8										
Boron	**750**		ug/L	50	6.1	10	309769	03/15/23	03/15/23	JCP
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**470**		mg/L	10	0.26	10	309714	03/14/23 17:04	03/15/23 04:58	RKV
Nitrogen, Nitrite	**0.01**	J	mg/L	0.10	0.008	1	309714	03/14/23 17:04	03/15/23 04:00	RKV
Nitrogen, Nitrate	**0.01**	B,J	mg/L	0.10	0.005	1	309714	03/14/23 17:04	03/15/23 04:00	RKV
Sulfate	**540**		mg/L	10	1.4	10	309714	03/14/23 17:04	03/15/23 04:58	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	**2.2**		mg/L	0.40	0.070	1	309979	03/17/23	03/17/23	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.20**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 2150B										
Odor	ND		TON	1.0		1	309730	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM 4500-CL-G										
Chlorine, Total Residual	ND	H	mg/L	0.10	0.026	1	309965	03/16/23 12:23	03/16/23 12:23	ATP
Method: SM 4500-H+ B										
pH	**7.33**	H	SU			1	309793	03/15/23 12:37	03/15/23 12:37	JRT
Temperature	**19.30**	H	deg C	1.00		1	309793	03/15/23 12:37	03/15/23 12:37	JRT
Method: SM 4500-NH3-G										
Ammonia-N	**2.0**		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.18**		mg/L	0.020	0.0054	1	310106	03/22/23	03/22/23	ATP
Method: SM 5310B										
Total Organic Carbon	**4.9**		mg/L	1.0	0.23	1	310081	03/18/23	03/18/23	PWM
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Coliform, Total	**2.0**		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Method: SM2120B										
Color	**10**		ColorUnits	5		1	309731	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM2130B										
Turbidity	**2.4**		NTU	0.10	0.02	1	309729	03/14/23 18:52	03/14/23 18:52	LVL
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**1,900**		mg/L	20		2	309897	03/16/23	03/17/23	GKD
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	**2.0**		mg/L	0.6		1.1	309927	03/16/23	03/16/23	DNA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481518

481518-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: TOTAL NITROGEN										
Total Nitrogen	**2.2**		mg/L			1	310589	03/27/23	03/27/23	SLL

< Value is less than indicated concentration
B Contamination found in associated Method Blank
H Holding time was exceeded
J Estimated value
ND Not Detected

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	**Lab ID:** QC1052179	**Batch:** 309769
Matrix: Water	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052179 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Boron	ND		ug/L	5.0	0.61	03/15/23	03/15/23

Type: Matrix Spike	**Lab ID:** QC1052180	**Batch:** 309769
Matrix (Source ID): Water (481393-001)	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052180 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Boron	90.88	ND	100.0	ug/L	91%		70-130	10

Type: Matrix Spike Duplicate	**Lab ID:** QC1052181	**Batch:** 309769
Matrix (Source ID): Water (481393-001)	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052181 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Boron	83.44	ND	100.0	ug/L	83%		70-130	9	20	10

Type: Lab Control Sample	**Lab ID:** QC1052182	**Batch:** 309769
Matrix: Water	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052182 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Boron	90.68	100.0	ug/L	91%		85-115

Type: Matrix Spike	**Lab ID:** QC1052183	**Batch:** 309769
Matrix (Source ID): Water (481472-001)	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052183 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Boron	213.3	121.1	100.0	ug/L	92%		70-130	10

Type: Matrix Spike Duplicate	**Lab ID:** QC1052184	**Batch:** 309769
Matrix (Source ID): Water (481472-001)	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052184 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Boron	227.5	121.1	100.0	ug/L	106%		70-130	6	20	10

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	**Lab ID:** QC1054134	**Batch:** 310422
Matrix: Water	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1054134 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Sulfate	ND		mg/L	1.0	0.14	03/24/23 13:48	03/24/23 14:15

Type: Lab Control Sample	**Lab ID:** QC1054135	**Batch:** 310422
Matrix: Water	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1054135 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Sulfate	24.36	25.00	mg/L	97%		90-110

Type: Matrix Spike	**Lab ID:** QC1054136	**Batch:** 310422
Matrix (Source ID): Water (482154-001)	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1054136 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Sulfate	234.6	239.0	10.00	mg/L	-43%	E,NM	80-120	1

Type: Matrix Spike Duplicate	**Lab ID:** QC1054137	**Batch:** 310422
Matrix (Source ID): Water (482154-001)	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1054137 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Sulfate	234.6	239.0	10.00	mg/L	-43%	E,NM	80-120		20	1

Type: Matrix Spike	**Lab ID:** QC1054158	**Batch:** 310422
Matrix (Source ID): Water (482171-002)	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1054158 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Sulfate	45.43	34.30	10.00	mg/L	111%		80-120	1

Type: Matrix Spike Duplicate	**Lab ID:** QC1054159	**Batch:** 310422
Matrix (Source ID): Water (482171-002)	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1054159 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Sulfate	44.52	34.30	10.00	mg/L	102%		80-120	2	20	1

ENTHALPY ANALYTICAL

Batch QC

Type:	**Blank**	**Lab ID:**	**QC1052022**	**Batch:**	**309714**
Matrix:	**Drinking Water**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052022 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Chloride	0.027	J	mg/L	1.0	0.026	03/14/23 17:04	03/14/23 18:19
Nitrogen, Nitrite	ND		mg/L	0.10	0.008	03/14/23 17:04	03/14/23 18:19
Nitrogen, Nitrate	0.02	J	mg/L	0.10	0.005	03/14/23 17:04	03/14/23 18:19
Sulfate	ND		mg/L	1.0	0.14	03/14/23 17:04	03/14/23 18:19

Type:	**Lab Control Sample**	**Lab ID:**	**QC1052023**	**Batch:**	**309714**
Matrix:	**Drinking Water**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052023 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Chloride	47.12	50.00	mg/L	94%		90-110
Nitrogen, Nitrite	4.327	4.567	mg/L	95%		90-110
Nitrogen, Nitrate	4.338	4.518	mg/L	96%		90-110
Sulfate	24.36	25.00	mg/L	97%		90-110

Type:	**Matrix Spike**	**Lab ID:**	**QC1052024**	**Batch:**	**309714**
Matrix (Source ID):	**Drinking Water (481403-001)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052024 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Chloride	78.79	58.10	20.00	mg/L	103%		80-120	1
Nitrogen, Nitrite	1.706	0.008678	1.827	mg/L	93%		80-120	1
Nitrogen, Nitrate	1.784	0.03417	1.807	mg/L	97%		80-120	1
Sulfate	22.71	12.75	10.00	mg/L	100%		80-120	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1052025**	**Batch:**	**309714**
Matrix (Source ID):	**Drinking Water (481403-001)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052025 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Chloride	78.91	58.10	20.00	mg/L	104%		80-120	0	20	1
Nitrogen, Nitrite	1.708	0.008678	1.827	mg/L	93%		80-120	0	20	1
Nitrogen, Nitrate	1.800	0.03417	1.807	mg/L	98%		80-120	1	20	1
Sulfate	22.62	12.75	10.00	mg/L	99%		80-120	0	20	1

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike**	**Lab ID:**	**QC1052026**	**Batch:**	**309714**
Matrix (Source ID):	**Drinking Water (481484-006)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052026 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Chloride	187.6	169.3	20.00	mg/L	91%	NM	80-120	1
Nitrogen, Nitrite	1.728	0.01006	1.827	mg/L	94%		80-120	1
Nitrogen, Nitrate	2.235	0.4595	1.807	mg/L	98%		80-120	1
Sulfate	9.526	ND	10.00	mg/L	95%		80-120	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1052027**	**Batch:**	**309714**
Matrix (Source ID):	**Drinking Water (481484-006)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052027 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Chloride	187.6	169.3	20.00	mg/L	91%	NM	80-120	0	20	1
Nitrogen, Nitrite	1.737	0.01006	1.827	mg/L	95%		80-120	1	20	1
Nitrogen, Nitrate	2.239	0.4595	1.807	mg/L	98%		80-120	0	20	1
Sulfate	9.565	ND	10.00	mg/L	96%		80-120	0	20	1

Type:	**Lab Control Sample**	**Lab ID:**	**QC1052751**	**Batch:**	**309979**
Matrix:	**Water**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1052751 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Total Kjeldahl	2.558	2.500	mg/L	102%		90-110

Type:	**Blank**	**Lab ID:**	**QC1052752**	**Batch:**	**309979**
Matrix:	**Water**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1052752 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Total Kjeldahl	ND		mg/L	0.20	0.035	03/17/23	03/17/23

Type:	**Matrix Spike**	**Lab ID:**	**QC1052753**	**Batch:**	**309979**
Matrix (Source ID):	**Water (481380-001)**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1052753 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	12.44	0.5805	12.50	mg/L	95%		90-110	2.5

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1052754**	**Batch:**	**309979**
Matrix (Source ID):	**Water (481380-001)**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1052754 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	10.72	0.5805	12.50	mg/L	81%	*	90-110	15	20	2.5

Type:	**Matrix Spike**	**Lab ID:**	**QC1052755**	**Batch:**	**309979**
Matrix (Source ID):	**Water (481518-005)**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1052755 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	14.20	2.233	12.50	mg/L	96%		90-110	2.5

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1052756**	**Batch:**	**309979**
Matrix (Source ID):	**Water (481518-005)**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1052756 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	14.17	2.233	12.50	mg/L	96%		90-110	0	20	2.5

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052064**	**Batch:**	**309730**
Matrix (Source ID):	**Water (481518-001)**	**Method:**	**SM 2150B**		

QC1052064 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Odor	ND	ND	TON			20	1

Type:	**Blank**	**Lab ID:**	**QC1052701**	**Batch:**	**309965**
Matrix:	**Water**	**Method:**	**SM 4500-CL-G**		

QC1052701 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Chlorine, Total Residual	ND		mg/L	0.10	0.026	03/16/23 12:23	03/16/23 12:23

Type:	**Lab Control Sample**	**Lab ID:**	**QC1052702**	**Batch:**	**309965**
Matrix:	**Water**	**Method:**	**SM 4500-CL-G**		

QC1052702 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Chlorine, Total Residual	1.000	1.000	mg/L	100%		80-120

ENTHALPY ANALYTICAL

Batch QC

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052703**
Matrix (Source ID):	**Water (481487-001)**	**Method:**	**SM 4500-CL-G**
			Batch: 309965

QC1052703 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Chlorine, Total Residual	ND	ND	mg/L			20	1

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052230**
Matrix (Source ID):	**Water (481413-001)**	**Method:**	**SM 4500-H+ B**
			Batch: 309793

QC1052230 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
pH	5.980	6.020	SU		1	20	1
Temperature	19.30	19.30	deg C		0	20	1

Type:	**Lab Control Sample**	**Lab ID:**	**QC1053794**
Matrix:	**Water**	**Method:**	**SM 4500-NH3-G**
			Batch: 310320

QC1053794 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Ammonia-N	2.624	2.500	mg/L	105%		80-120

Type:	**Blank**	**Lab ID:**	**QC1053795**
Matrix:	**Water**	**Method:**	**SM 4500-NH3-G**
			Batch: 310320

QC1053795 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Ammonia-N	ND		mg/L	0.10	0.045	03/23/23	03/23/23

Type:	**Matrix Spike**	**Lab ID:**	**QC1053796**
Matrix (Source ID):	**Water (481518-004)**	**Method:**	**SM 4500-NH3-G**
			Batch: 310320

QC1053796 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Ammonia-N	2.804	0.2410	2.500	mg/L	103%		80-120	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1053797**
Matrix (Source ID):	**Water (481518-004)**	**Method:**	**SM 4500-NH3-G**
			Batch: 310320

QC1053797 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Ammonia-N	2.809	0.2410	2.500	mg/L	103%		80-120	0	20	1

ENTHALPY ANALYTICAL

Batch QC

Type: Blank **Lab ID: QC1053157** **Batch: 310106**
Matrix: Water **Method: SM 4500-P-B5-E**

QC1053157 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Phosphorus	ND		mg/L	0.020	0.0054	03/22/23	03/22/23

Type: Lab Control Sample **Lab ID: QC1053158** **Batch: 310106**
Matrix: Water **Method: SM 4500-P-B5-E**

QC1053158 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Phosphorus	0.3940	0.4000	mg/L	99%		80-120

Type: Matrix Spike **Lab ID: QC1053159** **Batch: 310106**
Matrix (Source ID): Water (481518-001) **Method: SM 4500-P-B5-E**

QC1053159 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Phosphorus	2.090	1.060	1.000	mg/L	103%		75-125	2.5

Type: Matrix Spike Duplicate **Lab ID: QC1053160** **Batch: 310106**
Matrix (Source ID): Water (481518-001) **Method: SM 4500-P-B5-E**

QC1053160 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Phosphorus	2.248	1.060	1.000	mg/L	119%		75-125	7	20	2.5

Type: Lab Control Sample **Lab ID: QC1053090** **Batch: 310081**
Matrix: Sea Water **Method: SM 5310B**

QC1053090 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Organic Carbon	9.963	10.00	mg/L	100%		80-120

Type: Blank **Lab ID: QC1053091** **Batch: 310081**
Matrix: Sea Water **Method: SM 5310B**

QC1053091 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Organic Carbon	ND		mg/L	1.0	0.23	03/18/23	03/18/23

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike**	**Lab ID:**	**QC1053099**
Matrix (Source ID):	**Water (481671-001)**	**Method:**	**SM 5310B**
Batch:	**310081**		

QC1053099 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Total Organic Carbon	94.43	10.74	80.00	mg/L	105%		80-120	8

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1053100**
Matrix (Source ID):	**Water (481671-001)**	**Method:**	**SM 5310B**
Batch:	**310081**		

QC1053100 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Total Organic Carbon	92.71	10.74	80.00	mg/L	102%		80-120	2	20	8

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052065**
Matrix (Source ID):	**Water (481518-001)**	**Method:**	**SM2120B**
Batch:	**309731**		

QC1052065 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Color	35.00	35.00	ColorUnits		0	20	1

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052063**
Matrix (Source ID):	**Water (481518-001)**	**Method:**	**SM2130B**
Batch:	**309729**		

QC1052063 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Turbidity	25.60	25.50	NTU		0	20	1

Type:	**Blank**	**Lab ID:**	**QC1052518**
Matrix:	**Water**	**Method:**	**SM2540C**
Batch:	**309897**		
Prep Method:	**METHOD**		

QC1052518 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Dissolved Solids	ND		mg/L	10		03/16/23	03/17/23

Type:	**Lab Control Sample**	**Lab ID:**	**QC1052519**
Matrix:	**Water**	**Method:**	**SM2540C**
Batch:	**309897**		
Prep Method:	**METHOD**		

QC1052519 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Dissolved Solids	984.0	1000	mg/L	98%		90-110

ENTHALPY ANALYTICAL

Batch QC

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052520**	**Batch:**	**309897**
Matrix (Source ID):	**Water (481520-001)**	**Method:**	**SM2540C**	**Prep Method:**	**METHOD**

QC1052520 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Dissolved Solids	4,450	4566	mg/L		3	5	2

Type:	**Blank**	**Lab ID:**	**QC1052595**	**Batch:**	**309927**
Matrix:	**Water**	**Method:**	**SM2540D**	**Prep Method:**	**METHOD**

QC1052595 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Suspended Solids	ND		mg/L	0.5		03/16/23	03/16/23

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052596**	**Batch:**	**309927**
Matrix (Source ID):	**Water (481532-001)**	**Method:**	**SM2540D**	**Prep Method:**	**METHOD**

QC1052596 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Suspended Solids	201.7	198.0	mg/L		2	5	3.3

* Value is outside QC limits
E Response exceeds instrument's linear range
J Estimated value
ND Not Detected
NM Not Meaningful

Laboratory Job Number 481518

Subcontracted Products

Eurofins Southwest

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ranjit Clarke
Enthalpy Analytical LLC
931 W. Barkley Ave
Orange, California 92868

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JOB DESCRIPTION

481518

JOB NUMBER

570-131285-1

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

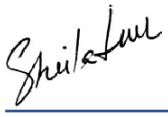
Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

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Authorization



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Definitions/Glossary

Client: Enthalpy Analytical LLC
Project/Site: 481518

Job ID: 570-131285-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client: Enthalpy Analytical LLC
Project/Site: 481518

Job ID: 570-131285-1

Job ID: 570-131285-1

Laboratory: Eurofins Calscience

Narrative

Job Narrative
570-131285-1

Receipt
The samples were received on 3/15/2023 12:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.7º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 1664A: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-312913.
Method: 1664.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Enthalpy Analytical LLC
Project/Site: 481518

Job ID: 570-131285-1

Client Sample ID: SMBRP-12 — Lab Sample ID: 570-131285-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Biochemical Oxygen Demand	6.16		2.00	1.00	mg/L	1		SM 5210B	Total/NA
MBAS	0.163	J	0.200	0.0500	mg/L	1		SM 5540C	Total/NA

Client Sample ID: MCWP-MW04S — Lab Sample ID: 570-131285-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MBAS	0.107	J	0.200	0.0500	mg/L	1		SM 5540C	Total/NA

Client Sample ID: MCWP-MW07S — Lab Sample ID: 570-131285-3

No Detections.

Client Sample ID: MCWP-MW07D — Lab Sample ID: 570-131285-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
MBAS	0.0786	J	0.200	0.0500	mg/L	1		SM 5540C	Total/NA

Client Sample ID: MCWP-MW09 — Lab Sample ID: 570-131285-5

No Detections.

This Detection Summary does not include radiochemical test results.

General Chemistry

Client Sample ID: SMBRP-12
Date Collected: 03/14/23 13:50
Date Received: 03/15/23 12:15

Lab Sample ID: 570-131285-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		1.18	0.605	mg/L		03/20/23 07:25	03/21/23 09:05	1
Biochemical Oxygen Demand (SM 5210B)	**6.16**		2.00	1.00	mg/L		03/15/23 20:13	03/15/23 20:48	1
MBAS (SM 5540C)	**0.163**	**J**	0.200	0.0500	mg/L		03/15/23 19:00	03/15/23 20:40	1

Client Sample ID: MCWP-MW04S
Date Collected: 03/14/23 08:35
Date Received: 03/15/23 12:15

Lab Sample ID: 570-131285-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		1.19	0.610	mg/L		03/20/23 07:25	03/21/23 09:05	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.00	1.00	mg/L		03/15/23 16:06	03/15/23 20:13	1
MBAS (SM 5540C)	**0.107**	**J**	0.200	0.0500	mg/L		03/15/23 19:00	03/15/23 20:41	1

Client Sample ID: MCWP-MW07S
Date Collected: 03/14/23 11:15
Date Received: 03/15/23 12:15

Lab Sample ID: 570-131285-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		1.20	0.612	mg/L		03/20/23 07:25	03/21/23 09:05	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.00	1.00	mg/L		03/15/23 18:40	03/15/23 20:19	1
MBAS (SM 5540C)	ND		0.200	0.0500	mg/L		03/15/23 19:00	03/15/23 20:42	1

Client Sample ID: MCWP-MW07D
Date Collected: 03/14/23 11:25
Date Received: 03/15/23 12:15

Lab Sample ID: 570-131285-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		1.19	0.606	mg/L		03/20/23 07:25	03/21/23 09:05	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.00	1.00	mg/L		03/15/23 18:40	03/15/23 20:26	1
MBAS (SM 5540C)	**0.0786**	**J**	0.200	0.0500	mg/L		03/15/23 19:00	03/15/23 20:43	1

Client Sample ID: MCWP-MW09
Date Collected: 03/14/23 14:15
Date Received: 03/15/23 12:15

Lab Sample ID: 570-131285-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		1.19	0.607	mg/L		03/20/23 07:25	03/21/23 09:05	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.00	1.00	mg/L		03/15/23 20:13	03/15/23 20:55	1
MBAS (SM 5540C)	ND		0.200	0.0500	mg/L		03/15/23 19:00	03/15/23 20:44	1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-312913/1-A
Matrix: Water
Analysis Batch: 313301

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 312913

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.00	0.510	mg/L		03/20/23 07:25	03/21/23 09:05	1

Lab Sample ID: LCS 570-312913/2-A
Matrix: Water
Analysis Batch: 313301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 312913

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM: Oil and Grease	40.0	37.00		mg/L		92	78 - 114

Lab Sample ID: LCSD 570-312913/3-A
Matrix: Water
Analysis Batch: 313301

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 312913

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM: Oil and Grease	40.0	39.00		mg/L		98	78 - 114	5	18

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: LCS 570-311759/2-A
Matrix: Water
Analysis Batch: 313443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311759

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	199	209.1		mg/L		105	84.6 - 115.4

Lab Sample ID: LCS 570-311954/2-A
Matrix: Water
Analysis Batch: 313458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311954

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	199	192.6		mg/L		97	84.6 - 115.4

Lab Sample ID: USB 570-313443/2
Matrix: Water
Analysis Batch: 313443

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.00	1.00	mg/L			03/15/23 11:04	1

Lab Sample ID: USB 570-313458/2
Matrix: Water
Analysis Batch: 313458

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.00	1.00	mg/L			03/15/23 18:33	1

Client: Enthalpy Analytical LLC
Project/Site: 481518

Job ID: 570-131285-1

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 570-312166/5-A
Matrix: Water
Analysis Batch: 312164

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 312166

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MBAS	ND		0.200	0.0500	mg/L		03/15/23 15:30	03/15/23 17:33	1

Lab Sample ID: LCS 570-312166/6-A
Matrix: Water
Analysis Batch: 312164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 312166

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
MBAS			0.500	0.4390		mg/L		88	83 - 122		

Lab Sample ID: LCSD 570-312166/7-A
Matrix: Water
Analysis Batch: 312164

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 312166

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
MBAS			0.500	0.4562		mg/L		91	83 - 122	4	10

QC Association Summary

Client: Enthalpy Analytical LLC
Project/Site: 481518

Job ID: 570-131285-1

General Chemistry

Prep Batch: 311759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131285-2	MCWP-MW04S	Total/NA	Water	BOD Prep	
570-131285-3	MCWP-MW07S	Total/NA	Water	BOD Prep	
570-131285-4	MCWP-MW07D	Total/NA	Water	BOD Prep	
LCS 570-311759/2-A	Lab Control Sample	Total/NA	Water	BOD Prep	

Prep Batch: 311954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131285-1	SMBRP-12	Total/NA	Water	BOD Prep	
570-131285-5	MCWP-MW09	Total/NA	Water	BOD Prep	
LCS 570-311954/2-A	Lab Control Sample	Total/NA	Water	BOD Prep	

Analysis Batch: 312164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131285-1	SMBRP-12	Total/NA	Water	SM 5540C	312166
570-131285-2	MCWP-MW04S	Total/NA	Water	SM 5540C	312166
570-131285-3	MCWP-MW07S	Total/NA	Water	SM 5540C	312166
570-131285-4	MCWP-MW07D	Total/NA	Water	SM 5540C	312166
570-131285-5	MCWP-MW09	Total/NA	Water	SM 5540C	312166
MB 570-312166/5-A	Method Blank	Total/NA	Water	SM 5540C	312166
LCS 570-312166/6-A	Lab Control Sample	Total/NA	Water	SM 5540C	312166
LCSD 570-312166/7-A	Lab Control Sample Dup	Total/NA	Water	SM 5540C	312166

Prep Batch: 312166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131285-1	SMBRP-12	Total/NA	Water	SM 5540C	
570-131285-2	MCWP-MW04S	Total/NA	Water	SM 5540C	
570-131285-3	MCWP-MW07S	Total/NA	Water	SM 5540C	
570-131285-4	MCWP-MW07D	Total/NA	Water	SM 5540C	
570-131285-5	MCWP-MW09	Total/NA	Water	SM 5540C	
MB 570-312166/5-A	Method Blank	Total/NA	Water	SM 5540C	
LCS 570-312166/6-A	Lab Control Sample	Total/NA	Water	SM 5540C	
LCSD 570-312166/7-A	Lab Control Sample Dup	Total/NA	Water	SM 5540C	

Prep Batch: 312913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131285-1	SMBRP-12	Total/NA	Water	1664A	
570-131285-2	MCWP-MW04S	Total/NA	Water	1664A	
570-131285-3	MCWP-MW07S	Total/NA	Water	1664A	
570-131285-4	MCWP-MW07D	Total/NA	Water	1664A	
570-131285-5	MCWP-MW09	Total/NA	Water	1664A	
MB 570-312913/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-312913/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-312913/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 313301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131285-1	SMBRP-12	Total/NA	Water	1664A	312913
570-131285-2	MCWP-MW04S	Total/NA	Water	1664A	312913
570-131285-3	MCWP-MW07S	Total/NA	Water	1664A	312913
570-131285-4	MCWP-MW07D	Total/NA	Water	1664A	312913
570-131285-5	MCWP-MW09	Total/NA	Water	1664A	312913

General Chemistry (Continued)

Analysis Batch: 313301 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-312913/1-A	Method Blank	Total/NA	Water	1664A	312913
LCS 570-312913/2-A	Lab Control Sample	Total/NA	Water	1664A	312913
LCSD 570-312913/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	312913

Analysis Batch: 313443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131285-2	MCWP-MW04S	Total/NA	Water	SM 5210B	311759
570-131285-3	MCWP-MW07S	Total/NA	Water	SM 5210B	311759
570-131285-4	MCWP-MW07D	Total/NA	Water	SM 5210B	311759
USB 570-313443/2	Method Blank	Total/NA	Water	SM 5210B	
LCS 570-311759/2-A	Lab Control Sample	Total/NA	Water	SM 5210B	311759

Analysis Batch: 313458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131285-1	SMBRP-12	Total/NA	Water	SM 5210B	311954
570-131285-5	MCWP-MW09	Total/NA	Water	SM 5210B	311954
USB 570-313458/2	Method Blank	Total/NA	Water	SM 5210B	
LCS 570-311954/2-A	Lab Control Sample	Total/NA	Water	SM 5210B	311954

Lab Chronicle

Client: Enthalpy Analytical LLC
Project/Site: 481518

Job ID: 570-131285-1

Client Sample ID: SMBRP-12

Lab Sample ID: 570-131285-1

Date Collected: 03/14/23 13:50

Matrix: Water

Date Received: 03/15/23 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			844 mL	1000 mL	312913	03/20/23 07:25	RY4P	EET CAL 4
Total/NA	Analysis	1664A		1			313301	03/21/23 09:05	L6IE	EET CAL 4
	Instrument ID: NO EQUIQ									
Total/NA	Prep	BOD Prep					311954	03/15/23 20:13	TN8Z	EET CAL 4
Total/NA	Analysis	SM 5210B		1	300 mL	300 mL	313458	03/15/23 20:48	U7UR	EET CAL 4
	Instrument ID: BOD3									
Total/NA	Prep	SM 5540C			100 mL	100 mL	312166	03/15/23 19:00	ZVB7	EET CAL 4
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	312164	03/15/23 20:40	TXA8	EET CAL 4
	Instrument ID: UV8									

Client Sample ID: MCWP-MW04S

Lab Sample ID: 570-131285-2

Date Collected: 03/14/23 08:35

Matrix: Water

Date Received: 03/15/23 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			837 mL	1000 mL	312913	03/20/23 07:25	RY4P	EET CAL 4
Total/NA	Analysis	1664A		1			313301	03/21/23 09:05	L6IE	EET CAL 4
	Instrument ID: NO EQUIQ									
Total/NA	Prep	BOD Prep					311759	03/15/23 16:06	U7UR	EET CAL 4
Total/NA	Analysis	SM 5210B		1	300 mL	300 mL	313443	03/15/23 20:13	U7UR	EET CAL 4
	Instrument ID: BOD3									
Total/NA	Prep	SM 5540C			100 mL	100 mL	312166	03/15/23 19:00	ZVB7	EET CAL 4
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	312164	03/15/23 20:41	TXA8	EET CAL 4
	Instrument ID: UV8									

Client Sample ID: MCWP-MW07S

Lab Sample ID: 570-131285-3

Date Collected: 03/14/23 11:15

Matrix: Water

Date Received: 03/15/23 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			834 mL	1000 mL	312913	03/20/23 07:25	RY4P	EET CAL 4
Total/NA	Analysis	1664A		1			313301	03/21/23 09:05	L6IE	EET CAL 4
	Instrument ID: NO EQUIQ									
Total/NA	Prep	BOD Prep					311759	03/15/23 18:40	U7UR	EET CAL 4
Total/NA	Analysis	SM 5210B		1	300 mL	300 mL	313443	03/15/23 20:19	U7UR	EET CAL 4
	Instrument ID: BOD3									
Total/NA	Prep	SM 5540C			100 mL	100 mL	312166	03/15/23 19:00	ZVB7	EET CAL 4
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	312164	03/15/23 20:42	TXA8	EET CAL 4
	Instrument ID: UV8									

Lab Chronicle

Client: Enthalpy Analytical LLC
Project/Site: 481518

Job ID: 570-131285-1

Client Sample ID: MCWP-MW07D

Lab Sample ID: 570-131285-4

Date Collected: 03/14/23 11:25

Matrix: Water

Date Received: 03/15/23 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			842 mL	1000 mL	312913	03/20/23 07:25	RY4P	EET CAL 4
Total/NA	Analysis	1664A		1			313301	03/21/23 09:05	L6IE	EET CAL 4
	Instrument ID: NO EQUIQ									
Total/NA	Prep	BOD Prep					311759	03/15/23 18:40	U7UR	EET CAL 4
Total/NA	Analysis	SM 5210B		1	300 mL	300 mL	313443	03/15/23 20:26	U7UR	EET CAL 4
	Instrument ID: BOD3									
Total/NA	Prep	SM 5540C			100 mL	100 mL	312166	03/15/23 19:00	ZVB7	EET CAL 4
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	312164	03/15/23 20:43	TXA8	EET CAL 4
	Instrument ID: UV8									

Client Sample ID: MCWP-MW09

Lab Sample ID: 570-131285-5

Date Collected: 03/14/23 14:15

Matrix: Water

Date Received: 03/15/23 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			841 mL	1000 mL	312913	03/20/23 07:25	RY4P	EET CAL 4
Total/NA	Analysis	1664A		1			313301	03/21/23 09:05	L6IE	EET CAL 4
	Instrument ID: NO EQUIQ									
Total/NA	Prep	BOD Prep					311954	03/15/23 20:13	TN8Z	EET CAL 4
Total/NA	Analysis	SM 5210B		1	300 mL	300 mL	313458	03/15/23 20:55	U7UR	EET CAL 4
	Instrument ID: BOD3									
Total/NA	Prep	SM 5540C			100 mL	100 mL	312166	03/15/23 19:00	ZVB7	EET CAL 4
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	312164	03/15/23 20:44	TXA8	EET CAL 4
	Instrument ID: UV8									

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Enthalpy Analytical LLC
Project/Site: 481518

Job ID: 570-131285-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	3082	07-31-24
Oregon	NELAP	4175	02-02-24

Method Summary

Client: Enthalpy Analytical LLC
Project/Site: 481518

Job ID: 570-131285-1

Method	Method Description	Protocol	Laboratory
1664A	HEM and SGT-HEM	1664A	EET CAL 4
SM 5210B	BOD, 5-Day	SM	EET CAL 4
SM 5540C	Methylene Blue Active Substances (MBAS)	SM	EET CAL 4
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CAL 4
BOD Prep	Preparation, BOD	SM	EET CAL 4
SM 5540C	Preparation, Methylene Blue Active Substances (MBAS)	SM	EET CAL 4

Protocol References:

1664A = EPA-821-98-002

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

Client: Enthalpy Analytical LLC
Project/Site: 481518

Job ID: 570-131285-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-131285-1	SMBRP-12	Water	03/14/23 13:50	03/15/23 12:15
570-131285-2	MCWP-MW04S	Water	03/14/23 08:35	03/15/23 12:15
570-131285-3	MCWP-MW07S	Water	03/14/23 11:15	03/15/23 12:15
570-131285-4	MCWP-MW07D	Water	03/14/23 11:25	03/15/23 12:15
570-131285-5	MCWP-MW09	Water	03/14/23 14:15	03/15/23 12:15

ENTHALPY ANALYTICAL

Enthalpy Analytical - Orange
Orange, CA 92868
(714) 771-6900 / Fax: (510) 486-0532

131285

Subcontract Laboratory:
Eurofins Southwest
2841 Dow Avenue
Suite 100
Tustin, CA 92780
ATTN: PROJECT # 57000393
PO #: Required, to be sent via email

Enthalpy Order: EO-481518
PM: Ranjit K Clarke
Email: Ranjit.Clarke@enthalpy.com
CC: incomingreports@enthalpy.com
Phone: (714) 771-9906

Results Due: Standard TAT
Report Level: II
Report To: MDL
EDDs: .DBF erpimsenhanced

Notes:

Sample ID	Collected	Lab ID	# Cont.	Matrix	Analysis Requested	Comment
SMBRP-12 (1)	14-MAR-2023 13:50	481518-001	3	Water	EPA 1664 Oil & Grease (Total) -OUT	
				Water	BOD	
				Water	Surfactants (MBAS)	
MCWP-MW04S (2)	4-MAR-2023 08:35	481518-002	3	Water	EPA 1664 Oil & Grease (Total) -OUT	
				Water	BOD	
				Water	Surfactants (MBAS)	
MCWP-MW07S (3)	4-MAR-2023 11:15	481518-003	3	Water	EPA 1664 Oil & Grease (Total) -OUT	
				Water	BOD	
				Water	Surfactants (MBAS)	
MCWP-MW07D (4)	4-MAR-2023 11:25	481518-004	3	Water	EPA 1664 Oil & Grease (Total) -OUT	
				Water	BOD	
				Water	Surfactants (MBAS)	
MCWP-MW09 (5)	14-MAR-2023 14:15	481518-005	3	Water	EPA 1664 Oil & Grease (Total) -OUT	
				Water	BOD	
				Water	Surfactants (MBAS)	

Notes:	Relinquished By:	Received By:
	Derek Padilla	
	Date: 3/15/23 12:15	Date: 3/15/23 12:15
	Date:	Date:
	Date:	Date:

3-7/3-7 SCH

570-131285 Chain of Custody

Login Sample Receipt Checklist

Client: Enthalpy Analytical LLC

Job Number: 570-131285-1

Login Number: 131285
List Number: 1
Creator: Luu, Sheila

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

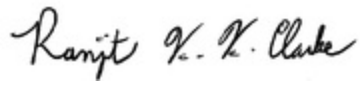
Lab Job Number: 481520
Report Level: II
Report Date: 03/27/2023

Analytical Report *prepared for:*

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Project: MALIBU - Malibu - Semi-Annual

Authorized for release by:



Ranjit K Clarke, Client Services Manager
(714) 771-9906
Ranjit.Clarke@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #:	481520
Project No:	MALIBU
Location:	Malibu - Semi-Annual
Date Received:	03/14/23

Sample ID	Lab ID	Collected	Matrix
MBCMW-9	481520-001	03/14/23 09:50	Water
SMBRP-7B	481520-002	03/14/23 11:55	Water
SMBRP-11	481520-003	03/14/23 09:00	Water
LAMW-55	481520-004	03/14/23 08:15	Water

ENTHALPY ANALYTICAL

Case Narrative

Rincon Consultants - Ventura 2060 Knoll Drive Unit B Ventura, CA 93001 Kiernan Brtalik	Lab Job Number: 481520 Project No: MALIBU Location: Malibu - Semi-Annual Date Received: 03/14/23

This data package contains sample and QC results for four water samples, requested for the above referenced project on 03/14/23. The samples were received cold and intact.

Ion Chromatography (EPA 300.0 and EPA 300.0):

- Nitrogen, nitrate was detected between the MDL and the RL in the method blank for batch 309714; this analyte was either not detected in samples at or above the RL, or detected at a level at least 10 times that of the blank.
- No other analytical problems were encountered.

Total Phosphorus as P (SM 4500-P-B5-E):
No analytical problems were encountered.

Organic Nitrogen, by Calculation (ORGANIC NITROGEN):
No analytical problems were encountered.

Total Dissolved Solids (TDS) (SM2540C):
No analytical problems were encountered.

Total Coliform / E. coli by Quanti-Tray (SM 9223Bb):
No analytical problems were encountered.

Ammonia and TKN- Semi-Automated Method (SM 4500-NH3-G):
No analytical problems were encountered.

ENTHALPHY ANALYTICAL, INC.		Chain of Custody Record				Turn Around Time (Rush by advanced notice only)					
931 W. Barkley Ave., Orange, CA 92868	ENTHALPY analytical, inc.	Lab No: 48/520				Standard:	X	4 Day:		3 Day:	
Phone: (714) 771-6900 Fax: (714) 538-1209		Page: 1	of	1		2 Day:		1 Day:		Same Day:	
Billing: Enthalpy - SoCal		Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other				Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other					
c/o Montrose Environmental Group											
1 Park Plaza, Suite 1000, Irvine, CA 92614											

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Name:	Malibu - Semi-Annual
Report To:	Kiernan Brtalik	Number:	
Email:		P.O. #:	
Address:	180 N. Ashwood Ave.	Address:	
	Ventura, CA 93003		
Phone:		Global ID:	
Cell:		Sampled By:	LANDON L. / Krystina K.

Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Total /Fecal Coliforms - SM 9223 Quantitray	TKN; NH3; Organic Nitrogen (Calculation)	EPA 300.0 (NO2,NO3)	Total Phosphorus	SM 2540C TDS	EPA 300.0 (NO3)					Test Instructions / Comments
SMBRP-13						X	X	X	X	X						3 Coolers
MCWP-MW10						X	X	X	X	X						3.5/2.6
CCPE						X	X	X	X	X						5.5/3.2
MBCMW-9	3/14/23	0950				X	X	X	X	X						4.8/2.7
SMBRP-7B	3/14/23	1155				X	X	X	X	X						
SMBRP-11	3/14/23	0900				X	X	X	X	X						
LAMW-5S	3/14/23	0815				X	X	X	X	X						
MCWP-MW05										X	X					
MCWP-MW06										X	X					

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	Kyst Cole	Krystina Collins	Rincon	3/14/23 1430
1 Received By:	&	Gawat	EA	3.14.23 1430
2 Relinquished By:	&	Gawat	EA	3.14.23 1653 1653
2 Received By:		ZARO PADINA	EA/GL	3/14/23 1653.
3 Relinquished By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants Project: _____

Date Received: 3/14/23 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 3 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 3.5 #2: 5.5 #3: 4.8 #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 2.6 #2: 3.2 #3: 2.7 #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✔		
Are sample IDs present?	✔		
Are sampling dates & times present?	✔		
Is a relinquished signature present?	✔		
Are the tests required clearly indicated on the COC?	✔		
Are custody seals present?		✔	
If custody seals are present, were they intact?			✔
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	✔		
Did all samples arrive intact? If no, indicate in Section 4 below.	✔		
Did all bottle labels agree with COC? (ID, dates and times)	✔		
Were the samples collected in the correct containers for the required tests?	✔		
Are the containers labeled with the correct preservatives?	✔		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✔
Was a sufficient amount of sample submitted for the requested tests?	✔		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 3/14/23

ENTHALPY ANALYTICAL

Analysis Results for 481520

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #: 481520
Project No: MALIBU
Location: Malibu - Semi-Annual
Date Received: 03/14/23

Sample ID: MBCMW-9 **Lab ID: 481520-001** **Collected: 03/14/23 09:50**
Matrix: Water

481520-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	**0.008**	J	mg/L	0.10	0.008	1	309714	03/14/23 17:04	03/15/23 05:17	RKV
Nitrogen, Nitrate	**0.02**	B,J	mg/L	0.10	0.005	1	309714	03/14/23 17:04	03/15/23 05:17	RKV
Nitrogen, Nitrate/Nitrite	**0.03**	J	mg/L	0.10		1	309714	03/14/23 17:04	03/15/23 05:17	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.74**		mg/L			1	310278	03/22/23	03/22/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310101	03/20/23	03/20/23	PWM
Nitrogen, Total Kjeldahl	**0.74**	B	mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.67**		mg/L	0.020	0.0054	1	310106	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	**1.0**		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**4,600**		mg/L	20		2	309897	03/16/23	03/17/23	GKD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481520

Sample ID: SMBRP-7B	Lab ID: 481520-002	Collected: 03/14/23 11:55
	Matrix: Water	

481520-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	**0.02**	J	mg/L	0.10	0.008	1	309714	03/14/23 17:04	03/15/23 05:56	RKV
Nitrogen, Nitrate	**1.6**		mg/L	0.10	0.005	1	309714	03/14/23 17:04	03/15/23 05:56	RKV
Nitrogen, Nitrate/Nitrite	**1.7**		mg/L	0.10		1	309714	03/14/23 17:04	03/15/23 05:56	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.25**		mg/L			1	310450	03/24/23	03/24/23	DCD
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310101	03/20/23	03/20/23	PWM
Nitrogen, Total Kjeldahl	**0.25**	J	mg/L	0.40	0.070	1	310389	03/24/23	03/24/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.25**		mg/L	0.020	0.0054	1	310106	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	**38**		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**2,300**		mg/L	40		4	309897	03/16/23	03/17/23	GKD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481520

Sample ID: SMBRP-11	Lab ID: 481520-003	Collected: 03/14/23 09:00
	Matrix: Water	

481520-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	**0.08**	J	mg/L	0.10	0.008	1	309714	03/14/23 17:04	03/15/23 06:35	RKV
Nitrogen, Nitrate	**7.3**		mg/L	0.10	0.005	1	309714	03/14/23 17:04	03/15/23 06:35	RKV
Nitrogen, Nitrate/Nitrite	**7.4**		mg/L	0.10		1	309714	03/14/23 17:04	03/15/23 06:35	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.50**		mg/L			1	310278	03/22/23	03/22/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	**2.1**		mg/L	0.10	0.045	1	310101	03/20/23	03/20/23	PWM
Nitrogen, Total Kjeldahl	**2.6**		mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.31**		mg/L	0.020	0.0054	1	310106	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Coliform, Total	**73**		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**1,800**		mg/L	40		4	309897	03/16/23	03/17/23	GKD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481520

Sample ID: LAMW-55	Lab ID: 481520-004	Collected: 03/14/23 08:15
	Matrix: Water	

481520-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	**0.02**	J	mg/L	0.10	0.008	1	309714	03/14/23 17:04	03/15/23 07:13	RKV
Nitrogen, Nitrate	**20**		mg/L	1.0	0.05	10	309714	03/14/23 17:04	03/15/23 07:33	RKV
Nitrogen, Nitrate/Nitrite	**20**		mg/L	0.10		1	309714	03/14/23 17:04	03/15/23 07:13	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.26**		mg/L			1	310278	03/22/23	03/22/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	**0.046**	J	mg/L	0.10	0.045	1	310101	03/20/23	03/20/23	PWM
Nitrogen, Total Kjeldahl	**0.31**	J	mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.89**		mg/L	0.080	0.022	4	310106	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Coliform, Total	**310**		MPN/100ml	1.0		1	309788	03/14/23 18:02	03/15/23 13:46	SMT
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**1,100**		mg/L	20		2	309897	03/16/23	03/17/23	GKD

< Value is less than indicated concentration
> Value exceeds indicated concentration
B Contamination found in associated Method Blank
J Estimated value
ND Not Detected

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	Lab ID: QC1052022	Batch: 309714
Matrix: Drinking Water	Method: EPA 300.0	Prep Method: METHOD

QC1052022 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Nitrite	ND		mg/L	0.10	0.008	03/14/23 17:04	03/14/23 18:19
Nitrogen, Nitrate	0.02	J	mg/L	0.10	0.005	03/14/23 17:04	03/14/23 18:19
Nitrogen, Nitrate/Nitrite	0.02	J	mg/L	0.10		03/14/23 17:04	03/14/23 18:19

Type: Lab Control Sample	Lab ID: QC1052023	Batch: 309714
Matrix: Drinking Water	Method: EPA 300.0	Prep Method: METHOD

QC1052023 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Nitrite	4.327	4.567	mg/L	95%		90-110
Nitrogen, Nitrate	4.338	4.518	mg/L	96%		90-110

Type: Matrix Spike	Lab ID: QC1052024	Batch: 309714
Matrix (Source ID): Drinking Water (481403-001)	Method: EPA 300.0	Prep Method: METHOD

QC1052024 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Nitrite	1.706	0.008678	1.827	mg/L	93%		80-120	1
Nitrogen, Nitrate	1.784	0.03417	1.807	mg/L	97%		80-120	1

Type: Matrix Spike Duplicate	Lab ID: QC1052025	Batch: 309714
Matrix (Source ID): Drinking Water (481403-001)	Method: EPA 300.0	Prep Method: METHOD

QC1052025 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Nitrite	1.708	0.008678	1.827	mg/L	93%		80-120	0	20	1
Nitrogen, Nitrate	1.800	0.03417	1.807	mg/L	98%		80-120	1	20	1

Type: Matrix Spike	Lab ID: QC1052026	Batch: 309714
Matrix (Source ID): Drinking Water (481484-006)	Method: EPA 300.0	Prep Method: METHOD

QC1052026 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Nitrite	1.728	0.01006	1.827	mg/L	94%		80-120	1
Nitrogen, Nitrate	2.235	0.4595	1.807	mg/L	98%		80-120	1

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1052027**	**Batch:**	**309714**
Matrix (Source ID):	**Drinking Water (481484-006)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052027 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Nitrite	1.737	0.01006	1.827	mg/L	95%		80-120	1	20	1
Nitrogen, Nitrate	2.239	0.4595	1.807	mg/L	98%		80-120	0	20	1

Type:	**Lab Control Sample**	**Lab ID:**	**QC1052757**	**Batch:**	**309980**
Matrix:	**Water**	**Method:**	**SM 4500-NH3-G**		

QC1052757 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Total Kjeldahl	2.429	2.500	mg/L	97%		80-120

Type:	**Blank**	**Lab ID:**	**QC1052758**	**Batch:**	**309980**
Matrix:	**Water**	**Method:**	**SM 4500-NH3-G**		

QC1052758 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Total Kjeldahl	ND		mg/L	0.20	0.035	03/17/23	03/17/23

Type:	**Matrix Spike**	**Lab ID:**	**QC1052759**	**Batch:**	**309980**
Matrix (Source ID):	**Water (481607-001)**	**Method:**	**SM 4500-NH3-G**		

QC1052759 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	13.25	0.6328	12.50	mg/L	101%		80-120	2.5

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1052760**	**Batch:**	**309980**
Matrix (Source ID):	**Water (481607-001)**	**Method:**	**SM 4500-NH3-G**		

QC1052760 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	11.34	0.6328	12.50	mg/L	86%		80-120	16	20	2.5

Type:	**Matrix Spike**	**Lab ID:**	**QC1052761**	**Batch:**	**309980**
Matrix (Source ID):	**Water (481612-002)**	**Method:**	**SM 4500-NH3-G**		

QC1052761 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	11.45	0.3003	12.50	mg/L	89%		80-120	2.5

ENTHALPY ANALYTICAL

Batch QC

Type: Matrix Spike Duplicate	Lab ID: QC1052762	Batch: 309980
Matrix (Source ID): Water (481612-002)	Method: SM 4500-NH3-G	

QC1052762 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	12.83	0.3003	12.50	mg/L	100%		80-120	11	20	2.5

Type: Lab Control Sample	Lab ID: QC1053137	Batch: 310101
Matrix: Water	Method: SM 4500-NH3-G	

QC1053137 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Ammonia-N	2.555	2.500	mg/L	102%		80-120

Type: Blank	Lab ID: QC1053138	Batch: 310101
Matrix: Water	Method: SM 4500-NH3-G	

QC1053138 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Ammonia-N	ND		mg/L	0.10	0.045	03/20/23	03/20/23

Type: Matrix Spike	Lab ID: QC1053143	Batch: 310101
Matrix (Source ID): Water (481510-001)	Method: SM 4500-NH3-G	

QC1053143 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Ammonia-N	2.968	0.3762	2.500	mg/L	104%		80-120	1

Type: Matrix Spike Duplicate	Lab ID: QC1053144	Batch: 310101
Matrix (Source ID): Water (481510-001)	Method: SM 4500-NH3-G	

QC1053144 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Ammonia-N	2.913	0.3762	2.500	mg/L	101%		80-120	2	20	1

Type: Matrix Spike	Lab ID: QC1053145	Batch: 310101
Matrix (Source ID): Water (481671-001)	Method: SM 4500-NH3-G	

QC1053145 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Ammonia-N	2.515	ND	2.500	mg/L	101%		80-120	1

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1053146**
Matrix (Source ID):	**Water (481671-001)**	**Method:**	**SM 4500-NH3-G**
		Batch:	**310101**

QC1053146 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Ammonia-N	2.471	ND	2.500	mg/L	99%		80-120	2	20	1

Type:	**Lab Control Sample**	**Lab ID:**	**QC1053997**
Matrix:	**Water**	**Method:**	**SM 4500-NH3-G**
		Batch:	**310389**

QC1053997 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Total Kjeldahl	2.424	2.500	mg/L	97%		80-120

Type:	**Blank**	**Lab ID:**	**QC1053998**
Matrix:	**Water**	**Method:**	**SM 4500-NH3-G**
		Batch:	**310389**

QC1053998 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Total Kjeldahl	ND		mg/L	0.20	0.035	03/24/23	03/24/23

Type:	**Matrix Spike**	**Lab ID:**	**QC1053999**
Matrix (Source ID):	**Water (481961-001)**	**Method:**	**SM 4500-NH3-G**
		Batch:	**310389**
		Prep Method:	**METHOD**

QC1053999 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	26.22	2.344	25.00	mg/L	96%		80-120	5

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1054000**
Matrix (Source ID):	**Water (481961-001)**	**Method:**	**SM 4500-NH3-G**
		Batch:	**310389**
		Prep Method:	**METHOD**

QC1054000 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	25.79	2.344	25.00	mg/L	94%		80-120	2	20	5

Type:	**Matrix Spike**	**Lab ID:**	**QC1054001**
Matrix (Source ID):	**Water (481991-001)**	**Method:**	**SM 4500-NH3-G**
		Batch:	**310389**
		Prep Method:	**METHOD**

QC1054001 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	12.59	ND	12.50	mg/L	101%		80-120	2.5

ENTHALPY ANALYTICAL

Batch QC

Type:	Matrix Spike Duplicate	**Lab ID:**	QC1054002	**Batch:**	310389
Matrix (Source ID):	Water (481991-001)	**Method:**	SM 4500-NH3-G	**Prep Method:**	METHOD

QC1054002 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	11.68	ND	12.50	mg/L	93%		80-120	8	20	2.5

Type:	Blank	**Lab ID:**	QC1053157	**Batch:**	310106
Matrix:	Water	**Method:**	SM 4500-P-B5-E		

QC1053157 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Phosphorus	ND		mg/L	0.020	0.0054	03/22/23	03/22/23

Type:	Lab Control Sample	**Lab ID:**	QC1053158	**Batch:**	310106
Matrix:	Water	**Method:**	SM 4500-P-B5-E		

QC1053158 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Phosphorus	0.3940	0.4000	mg/L	99%		80-120

Type:	Matrix Spike	**Lab ID:**	QC1053159	**Batch:**	310106
Matrix (Source ID):	Water (481518-001)	**Method:**	SM 4500-P-B5-E		

QC1053159 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Phosphorus	2.090	1.060	1.000	mg/L	103%		75-125	2.5

Type:	Matrix Spike Duplicate	**Lab ID:**	QC1053160	**Batch:**	310106
Matrix (Source ID):	Water (481518-001)	**Method:**	SM 4500-P-B5-E		

QC1053160 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Phosphorus	2.248	1.060	1.000	mg/L	119%		75-125	7	20	2.5

Type:	Blank	**Lab ID:**	QC1052518	**Batch:**	309897
Matrix:	Water	**Method:**	SM2540C	**Prep Method:**	METHOD

QC1052518 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Dissolved Solids	ND		mg/L	10		03/16/23	03/17/23

ENTHALPY ANALYTICAL

Batch QC

Type:	**Lab Control Sample**	**Lab ID:**	**QC1052519**	**Batch:**	**309897**
Matrix:	**Water**	**Method:**	**SM2540C**	**Prep Method:**	**METHOD**

QC1052519 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Dissolved Solids	984.0	1000	mg/L	98%		90-110

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052520**	**Batch:**	**309897**
Matrix (Source ID):	**Water (481520-001)**	**Method:**	**SM2540C**	**Prep Method:**	**METHOD**

QC1052520 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Dissolved Solids	4,450	4566	mg/L		3	5	2

J Estimated value
ND Not Detected

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

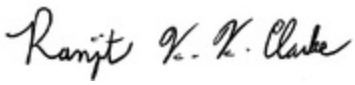
Lab Job Number: 481607
Report Level: II
Report Date: 03/24/2023

Analytical Report *prepared for:*

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Project: MALIBU - Malibu - Semi-Annual

Authorized for release by:



Ranjit K Clarke, Client Services Manager
(714) 771-9906
Ranjit.Clarke@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #:	481607
Project No:	MALIBU
Location:	Malibu - Semi-Annual
Date Received:	03/15/23

Sample ID	Lab ID	Collected	Matrix
N-001	481607-001	03/15/23 10:50	Water
N-002	481607-002	03/15/23 11:00	Water
N-003	481607-003	03/15/23 11:15	Water
N-004	481607-004	03/15/23 10:00	Water
L-001	481607-005	03/15/23 12:00	Water
L-002	481607-006	03/15/23 12:15	Water
L-003	481607-007	03/15/23 12:25	Water
L-004	481607-008	03/15/23 11:40	Water
L-005	481607-009	03/15/23 11:25	Water
L-006	481607-010	03/15/23 10:25	Water

ENTHALPY ANALYTICAL

Case Narrative

Rincon Consultants - Ventura 2060 Knoll Drive Unit B Ventura, CA 93001 Kiernan Brtalik	Lab Job Number: 481607 Project No: MALIBU Location: Malibu - Semi-Annual Date Received: 03/15/23

This data package contains sample and QC results for ten water samples, requested for the above referenced project on 03/15/23. The samples were received cold and intact.

Ion Chromatography (EPA 300.0 and EPA 300.0):

- N-001 (lab # 481607-001), N-002 (lab # 481607-002), and N-004 (lab # 481607-004) were diluted due to problematic matrix.
- No other analytical problems were encountered.

Total Phosphorus as P (SM 4500-P-B5-E):
No analytical problems were encountered.

Organic Nitrogen, by Calculation (ORGANIC NITROGEN):
No analytical problems were encountered.

Total Coliform / E. coli by Quanti-Tray (SM 9223Bb):
No analytical problems were encountered.

Ammonia and TKN- Semi-Automated Method (SM 4500-NH3-G):
No analytical problems were encountered.

ENTHALPY ANALYTICAL, INC.		Chain of Custody Record		Turn Around Time (Rush by advanced notice only)					
931 W. Barkley Ave., Orange, CA 92868	ENTHALPY analytical, inc.	Lab No: 481607		Standard:	X	4 Day:		3 Day:	
Phone: (714) 771-6900 Fax: (714) 538-1209		Page: 1 of 1		2 Day:		1 Day:		Same Day:	
Billing: Enthalpy - SoCal		Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other		Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other					
c/o Montrose Environmental Group									
1 Park Plaza, Suite 1000, Irvine, CA 92614									

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Name:	Malibu - Quarterly/Semi-Annual
Report To:	Kiernan Brtalik	Number:	
Email:		P.O. #:	
Address:	180 N. Ashwood Ave.	Address:	
	Ventura, CA 93003		
Phone:		Global ID:	
Cell:		Sampled By:	

Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Total /Fecal Coliforms - SM 9223 Quantitray	EPA 300.0: NO2,NO3	TKN; NH3; Phosphorus, Organic Nitrogen	Test Instructions / Comments
N-001	3/15/23	10:50	water	Multi		X	X	X	2 COOLERS
N-002		11:00				X	X	X	5.4 / 6.8
N-003		11:15				X	X	X	4.9 / 1.1
N-004		10:00				X	X	X	
L-001		12:00				X	X	X	
L-002		12:15				X	X	X	
L-003		12:25				X	X	X	
L-004		11:40				X	X	X	
L-005		11:25				X	X	X	
L-006	↓	10:25	↓	↓		X	X	X	

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		Lindsey Stockton	Rincon / Biologist	3/15 12:45
[1] Received By:	Kyst Cen	Krystna Collins	Rincon	3/15/23 1295
[2] Relinquished By:	Kyst Cen	Krystna Collins	Rincon	3/15/23 1358
[2] Received By:		66awaA	EA	3 15.23 1358
[3] Relinquished By:		66awat	EA	3.15.23 1545
[3] Received By:		W10F6	EA	3-15-23 1544

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants - Ventura

Project: Malibu-Quarterly/Semi-Annual

Date Received: 3/15/23

Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 2 ☐ No (skip section 2)

Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 5.4 #2: 4.9 #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 0.8 #2: 1.1 #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✔		
Are sample IDs present?	✔		
Are sampling dates & times present?	✔		
Is a relinquished signature present?	✔		
Are the tests required clearly indicated on the COC?	✔		
Are custody seals present?		✔	
If custody seals are present, were they intact?			✔
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✔
Did all samples arrive intact? If no, indicate in Section 4 below.	✔		
Did all bottle labels agree with COC? (ID, dates and times)	✔		
Were the samples collected in the correct containers for the required tests?	✔		
Are the containers labeled with the correct preservatives?	✔		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✔
Was a sufficient amount of sample submitted for the requested tests?	✔		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 3-15-23

ENTHALPY ANALYTICAL

Analysis Results for 481607

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #: 481607
Project No: MALIBU
Location: Malibu - Semi-Annual
Date Received: 03/15/23

Sample ID: N-001 **Lab ID: 481607-001** **Collected: 03/15/23 10:50**
Matrix: Water

481607-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	ND		mg/L	1.0	0.08	10	309812	03/15/23 15:36	03/15/23 19:55	RKV
Nitrogen, Nitrate	**0.05**	J	mg/L	1.0	0.05	10	309812	03/15/23 15:36	03/15/23 19:55	RKV
Nitrogen, Nitrate/Nitrite	**0.05**	J	mg/L	1.0		10	309812	03/15/23 15:36	03/15/23 19:55	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.63**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Nitrogen, Total Kjeldahl	**0.63**		mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.15**		mg/L	0.020	0.0054	1	310144	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Coliform, Total	**210**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481607

Sample ID: N-002	Lab ID: 481607-002	Collected: 03/15/23 11:00
	Matrix: Water	

481607-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	ND		mg/L	1.0	0.08	10	309812	03/15/23 15:36	03/15/23 20:33	RKV
Nitrogen, Nitrate	**0.08**	J	mg/L	1.0	0.05	10	309812	03/15/23 15:36	03/15/23 20:33	RKV
Nitrogen, Nitrate/Nitrite	**0.08**	J	mg/L	1.0		10	309812	03/15/23 15:36	03/15/23 20:33	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.38**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Nitrogen, Total Kjeldahl	**0.38**	J	mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.15**		mg/L	0.020	0.0054	1	310144	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Coliform, Total	**100**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC

Sample ID: N-003	Lab ID: 481607-003	Collected: 03/15/23 11:15
	Matrix: Water	

481607-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	ND		mg/L	0.10	0.008	1	309812	03/15/23 15:36	03/15/23 20:53	RKV
Nitrogen, Nitrate	**0.57**		mg/L	0.10	0.005	1	309812	03/15/23 15:36	03/15/23 20:53	RKV
Nitrogen, Nitrate/Nitrite	**0.57**		mg/L	0.10		1	309812	03/15/23 15:36	03/15/23 20:53	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**1.3**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	**0.084**	J	mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Nitrogen, Total Kjeldahl	**1.4**		mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.83**		mg/L	0.020	0.0054	1	310144	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	**2,400**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481607

Sample ID: N-004	Lab ID: 481607-004	Collected: 03/15/23 10:00
	Matrix: Water	

481607-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	ND		mg/L	1.0	0.08	10	309812	03/15/23 15:36	03/15/23 21:51	RKV
Nitrogen, Nitrate	**0.82**	J	mg/L	1.0	0.05	10	309812	03/15/23 15:36	03/15/23 21:51	RKV
Nitrogen, Nitrate/Nitrite	**0.82**	J	mg/L	1.0		10	309812	03/15/23 15:36	03/15/23 21:51	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.45**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Nitrogen, Total Kjeldahl	**0.45**		mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**1.3**		mg/L	0.040	0.011	2	310144	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	**36**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC

Sample ID: L-001	Lab ID: 481607-005	Collected: 03/15/23 12:00
	Matrix: Water	

481607-005 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	**0.02**	J	mg/L	0.10	0.008	1	309812	03/15/23 15:36	03/15/23 22:10	RKV
Nitrogen, Nitrate	**0.62**		mg/L	0.10	0.005	1	309812	03/15/23 15:36	03/15/23 22:10	RKV
Nitrogen, Nitrate/Nitrite	**0.64**		mg/L	0.10		1	309812	03/15/23 15:36	03/15/23 22:10	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.84**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Nitrogen, Total Kjeldahl	**0.84**		mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.59**		mg/L	0.020	0.0054	1	310144	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	**1,200**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481607

Sample ID: L-002	Lab ID: 481607-006	Collected: 03/15/23 12:15
	Matrix: Water	

481607-006 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	**0.02**	J	mg/L	0.10	0.008	1	309812	03/15/23 15:36	03/15/23 23:28	RKV
Nitrogen, Nitrate	**0.64**		mg/L	0.10	0.005	1	309812	03/15/23 15:36	03/15/23 23:28	RKV
Nitrogen, Nitrate/Nitrite	**0.65**		mg/L	0.10		1	309812	03/15/23 15:36	03/15/23 23:28	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.22**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Nitrogen, Total Kjeldahl	**0.22**	J	mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.42**		mg/L	0.020	0.0054	1	310144	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	**1,000**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC

Sample ID: L-003	Lab ID: 481607-007	Collected: 03/15/23 12:25
	Matrix: Water	

481607-007 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	**0.02**	J	mg/L	0.10	0.008	1	309812	03/15/23 15:36	03/16/23 00:06	RKV
Nitrogen, Nitrate	**0.64**		mg/L	0.10	0.005	1	309812	03/15/23 15:36	03/16/23 00:06	RKV
Nitrogen, Nitrate/Nitrite	**0.66**		mg/L	0.10		1	309812	03/15/23 15:36	03/16/23 00:06	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.54**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	**0.070**	J	mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Nitrogen, Total Kjeldahl	**0.61**		mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.48**		mg/L	0.020	0.0054	1	310144	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	**1,300**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481607

Sample ID: L-004	Lab ID: 481607-008	Collected: 03/15/23 11:40
	Matrix: Water	

481607-008 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	**0.02**	J	mg/L	0.10	0.008	1	309812	03/15/23 15:36	03/16/23 00:45	RKV
Nitrogen, Nitrate	**0.60**		mg/L	0.10	0.005	1	309812	03/15/23 15:36	03/16/23 00:45	RKV
Nitrogen, Nitrate/Nitrite	**0.62**		mg/L	0.10		1	309812	03/15/23 15:36	03/16/23 00:45	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.33**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Nitrogen, Total Kjeldahl	**0.33**	J	mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.49**		mg/L	0.020	0.0054	1	310144	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	**760**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC

Sample ID: L-005	Lab ID: 481607-009	Collected: 03/15/23 11:25
	Matrix: Water	

481607-009 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	**0.01**	J	mg/L	0.10	0.008	1	309812	03/15/23 15:36	03/16/23 01:24	RKV
Nitrogen, Nitrate	**0.56**		mg/L	0.10	0.005	1	309812	03/15/23 15:36	03/16/23 01:24	RKV
Nitrogen, Nitrate/Nitrite	**0.57**		mg/L	0.10		1	309812	03/15/23 15:36	03/16/23 01:24	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**1.0**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	**0.057**	J	mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Nitrogen, Total Kjeldahl	**1.1**		mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.58**		mg/L	0.020	0.0054	1	310144	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	**1,400**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481607

Sample ID: L-006	Lab ID: 481607-010	Collected: 03/15/23 10:25
	Matrix: Water	

481607-010 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	ND		mg/L	0.10	0.008	1	309812	03/15/23 15:36	03/16/23 02:02	RKV
Nitrogen, Nitrate	**0.25**		mg/L	0.10	0.005	1	309812	03/15/23 15:36	03/16/23 02:02	RKV
Nitrogen, Nitrate/Nitrite	**0.25**		mg/L	0.10		1	309812	03/15/23 15:36	03/16/23 02:02	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**4.5**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Nitrogen, Total Kjeldahl	**4.5**		mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.33**		mg/L	0.020	0.0054	1	310144	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	**1,600**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC

< Value is less than indicated concentration
> Value exceeds indicated concentration
J Estimated value
ND Not Detected

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	**Lab ID:** QC1052262	**Batch:** 309812
Matrix: Drinking Water	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1052262 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Nitrite	ND		mg/L	0.10	0.008	03/15/23 15:36	03/15/23 15:44
Nitrogen, Nitrate	ND		mg/L	0.10	0.005	03/15/23 15:36	03/15/23 15:44
Nitrogen, Nitrate/Nitrite	ND		mg/L	0.10		03/15/23 15:36	03/15/23 15:44

Type: Lab Control Sample	**Lab ID:** QC1052263	**Batch:** 309812
Matrix: Drinking Water	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1052263 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Nitrite	4.308	4.567	mg/L	94%		90-110
Nitrogen, Nitrate	4.336	4.518	mg/L	96%		90-110

Type: Matrix Spike	**Lab ID:** QC1052283	**Batch:** 309812
Matrix (Source ID): Water (481610-001)	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1052283 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Nitrite	1.687	ND	1.827	mg/L	92%		80-120	1
Nitrogen, Nitrate	3.151	1.327	1.807	mg/L	101%		80-120	1

Type: Matrix Spike Duplicate	**Lab ID:** QC1052284	**Batch:** 309812
Matrix (Source ID): Water (481610-001)	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1052284 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Nitrite	1.686	ND	1.827	mg/L	92%		80-120	0	20	1
Nitrogen, Nitrate	3.160	1.327	1.807	mg/L	101%		80-120	0	20	1

Type: Lab Control Sample	**Lab ID:** QC1052757	**Batch:** 309980
Matrix: Water	**Method:** SM 4500-NH3-G	

QC1052757 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Total Kjeldahl	2.429	2.500	mg/L	97%		80-120

Type: Blank	**Lab ID:** QC1052758	**Batch:** 309980
Matrix: Water	**Method:** SM 4500-NH3-G	

QC1052758 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Total Kjeldahl	ND		mg/L	0.20	0.035	03/17/23	03/17/23

ENTHALPY ANALYTICAL

Batch QC

Type: Matrix Spike **Lab ID: QC1052759** **Batch: 309980**
Matrix (Source ID): Water (481607-001) **Method: SM 4500-NH3-G**

QC1052759 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	13.25	0.6328	12.50	mg/L	101%		80-120	2.5

Type: Matrix Spike Duplicate **Lab ID: QC1052760** **Batch: 309980**
Matrix (Source ID): Water (481607-001) **Method: SM 4500-NH3-G**

QC1052760 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	11.34	0.6328	12.50	mg/L	86%		80-120	16	20	2.5

Type: Matrix Spike **Lab ID: QC1052761** **Batch: 309980**
Matrix (Source ID): Water (481612-002) **Method: SM 4500-NH3-G**

QC1052761 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	11.45	0.3003	12.50	mg/L	89%		80-120	2.5

Type: Matrix Spike Duplicate **Lab ID: QC1052762** **Batch: 309980**
Matrix (Source ID): Water (481612-002) **Method: SM 4500-NH3-G**

QC1052762 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	12.83	0.3003	12.50	mg/L	100%		80-120	11	20	2.5

Type: Lab Control Sample **Lab ID: QC1053794** **Batch: 310320**
Matrix: Water **Method: SM 4500-NH3-G**

QC1053794 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Ammonia-N	2.624	2.500	mg/L	105%		80-120

Type: Blank **Lab ID: QC1053795** **Batch: 310320**
Matrix: Water **Method: SM 4500-NH3-G**

QC1053795 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Ammonia-N	ND		mg/L	0.10	0.045	03/23/23	03/23/23

ENTHALPY ANALYTICAL

Batch QC

Type: Matrix Spike **Lab ID: QC1053796** **Batch: 310320**
Matrix (Source ID): Water (481518-004) **Method: SM 4500-NH3-G**

QC1053796 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Ammonia-N	2.804	0.2410	2.500	mg/L	103%		80-120	1

Type: Matrix Spike Duplicate **Lab ID: QC1053797** **Batch: 310320**
Matrix (Source ID): Water (481518-004) **Method: SM 4500-NH3-G**

QC1053797 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Ammonia-N	2.809	0.2410	2.500	mg/L	103%		80-120	0	20	1

Type: Blank **Lab ID: QC1053314** **Batch: 310144**
Matrix: Water **Method: SM 4500-P-B5-E**

QC1053314 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Phosphorus	ND		mg/L	0.020	0.0054	03/22/23	03/22/23

Type: Lab Control Sample **Lab ID: QC1053315** **Batch: 310144**
Matrix: Water **Method: SM 4500-P-B5-E**

QC1053315 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Phosphorus	0.3940	0.4000	mg/L	99%		80-120

Type: Matrix Spike **Lab ID: QC1053316** **Batch: 310144**
Matrix (Source ID): Water (481607-001) **Method: SM 4500-P-B5-E**

QC1053316 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Phosphorus	1.108	0.1500	1.000	mg/L	96%		75-125	2.5

Type: Matrix Spike Duplicate **Lab ID: QC1053317** **Batch: 310144**
Matrix (Source ID): Water (481607-001) **Method: SM 4500-P-B5-E**

QC1053317 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Phosphorus	1.143	0.1500	1.000	mg/L	99%		75-125	3	20	2.5

ND Not Detected

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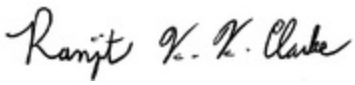
Lab Job Number: 481610
Report Level: II
Report Date: 03/29/2023

Analytical Report *prepared for:*

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Project: MALIBU - Malibu - Semi-Annual

Authorized for release by:



Ranjit K Clarke, Client Services Manager
(714) 771-9906
Ranjit.Clarke@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #:	481610
Project No:	MALIBU
Location:	Malibu - Semi-Annual
Date Received:	03/15/23

Sample ID	Lab ID	Collected	Matrix
MCWP-MW04D	481610-001	03/15/23 11:45	Water

ENTHALPY ANALYTICAL

Case Narrative

Rincon Consultants - Ventura 2060 Knoll Drive Unit B Ventura, CA 93001 Kiernan Brtalik	Lab Job Number: 481610 Project No: MALIBU Location: Malibu - Semi-Annual Date Received: 03/15/23

This data package contains sample and QC results for one water sample, requested for the above referenced project on 03/15/23. The sample was received cold and intact.

Metals (EPA 200.8):

- Boron was detected between the MDL and the RL in the method blank for batch 309952; this analyte was detected in the sample at a level at least 10 times that of the blank.
- No other analytical problems were encountered.

Ion Chromatography (EPA 300.0):
No analytical problems were encountered.

Total Carbon by High-Temperature Combust (SM 5310B):
No analytical problems were encountered.

Total Phosphorus as P (SM 4500-P-B5-E):
No analytical problems were encountered.

Total Nitrogen, by Calculation (TOTAL NITROGEN):
No analytical problems were encountered.

Organic Nitrogen, by Calculation (ORGANIC NITROGEN):
No analytical problems were encountered.

Total Dissolved Solids (TDS) (SM2540C):
No analytical problems were encountered.

Total Suspended Solids (TSS) (SM2540D):
No analytical problems were encountered.

Free Chlorine (SM 4500-CL-G):
No analytical problems were encountered.

pH of Aqueous Samples (SM 4500-H+ B):
No analytical problems were encountered.

Odor (SM 2150B):
No analytical problems were encountered.

Turbidity (SM2130B):
No analytical problems were encountered.

Color by Visual Comparison (SM2120B):
No analytical problems were encountered.

Total Coliform / E. coli by Quanti-Tray (SM 9223Bb):
No analytical problems were encountered.

Ammonia and TKN- Semi-Automated Method (SM 4500-NH3-G):

- Low recovery was observed for nitrogen, total kjeldahl in the MSD of N-001 (lab # 481607-001); the LCS was within limits, and the associated RPD was within limits.
- Low recovery was observed for nitrogen, total kjeldahl in the MS of MCWP-MW10 (lab # 481612-002); the LCS was within limits, and the associated RPD was within limits.
- No other analytical problems were encountered.

EPA 1664A Total O&G - OUT (EPA 1664A):
Eurofins Southwest in Tustin, CA performed the analysis (see sublab report section for certifications). Please see the Eurofins Southwest case narrative.

BOD (SM 5210B):
Eurofins Southwest in Tustin, CA performed the analysis (see sublab report section for certifications). Please see the Eurofins Southwest case narrative.

Surfactants (MBAS) (SM5540C):
Eurofins Southwest in Tustin, CA performed the analysis (see sublab report section for certifications). Please see the Eurofins Southwest case narrative.

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 481610

Page: 1 of 1

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Enthalpy Analytical - Orange

931 W. Barkley Avenue, Orange, CA 92868

Phone 714-771-6900

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Quote #:	
Report To:	Kierran Britalik	Proj. Name:	Malibu-Semi-Annual
Email:		Proj. #:	
Address:	180 N. Ashwood Ave.	P.O. #:	
	Ventura, CA	Address:	
Phone:		Global ID:	
Fax:		Sampled By:	Landon Lujan

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.
1	~~SMBRP-9~~					
2	MCWP-MW04D	3/15/23	1145	GW	11	
3						
4						
5						
6						
7						
8						
9						
10						

Analysis Request

	Total/Fecal (Colilert SM9223 Quanti-Tray)	EPA 200.7 (B)	EPA 300.0 Cl, NO2, NO3, SO4	TKN, NH3, Phosphorus	SM 5310C TOC, BOD, TSS, TDS	pH, Residual Cl, MBAS, Turb, color, odor	EPA 1664A oil & Grease	Organic Nitrogen, Total Nitrogen
1	X	X	X	X	X	X	X	X
2	X	X	X	X	X	X	X	X

Test Instructions / Comments

2 COOLERS

5.4 / 0.8

4.9 / 1.1

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		Landon Lujan	Rincon Consultants	3/15/23 @ 1345
[1] Received By:		Krystina Collins	Rincon	3/15/23 1345
[2] Relinquished By:		Krystina Collins	Rincon	3/15/23 1358
[2] Received By:		GeoVac	EA	3.15.23 1358
[3] Relinquished By:		GeoVac	EA	3.15.23 1545
[3] Received By:		NELAC	EA	3-15-23 15 45

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants - Ventura

Project: Malibu-Semi-Annual

Date Received: 3/15/23

Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 2 ☐ No (skip section 2)

Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 5.4 #2: 4.9 #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 0.8 #2: 1.1 #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?	✓		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 3-15-23

ENTHALPY ANALYTICAL

Analysis Results for 481610

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #: 481610
Project No: MALIBU
Location: Malibu - Semi-Annual
Date Received: 03/15/23

Sample ID: MCWP-MW04D **Lab ID: 481610-001** **Collected: 03/15/23 11:45**
Matrix: Water

481610-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.8 Prep Method: EPA 200.8										
Boron	**840**		ug/L	50	6.1	10	309952	03/17/23	03/22/23	JCP
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**240**		mg/L	10	0.26	10	309812	03/15/23 15:36	03/16/23 04:18	RKV
Nitrogen, Nitrite	ND		mg/L	0.10	0.008	1	309812	03/15/23 15:36	03/16/23 03:20	RKV
Nitrogen, Nitrate	**1.3**		mg/L	0.10	0.005	1	309812	03/15/23 15:36	03/16/23 03:20	RKV
Sulfate	**550**		mg/L	10	1.4	10	309812	03/15/23 15:36	03/16/23 04:18	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	**0.37**	J	mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.37**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 2150B										
Odor	ND		TON	1.0		1	309824	03/15/23 17:35	03/15/23 17:35	JRT
Method: SM 4500-CL-G										
Chlorine, Total Residual	ND	H	mg/L	0.10	0.026	1	309965	03/16/23 12:23	03/16/23 12:23	ATP
Method: SM 4500-H+ B										
pH	**6.96**	H	SU			1	309828	03/15/23 18:26	03/15/23 18:26	JRT
Temperature	**16.50**	H	deg C	1.00		1	309828	03/15/23 18:26	03/15/23 18:26	JRT
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.095**		mg/L	0.020	0.0054	1	310144	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Fecal Coliform	<1.0		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Method: SM2120B										
Color	ND		ColorUnits	5		1	309825	03/15/23 17:35	03/15/23 17:35	JRT
Method: SM2130B										
Turbidity	**0.43**		NTU	0.10	0.02	1	309759	03/15/23 17:35	03/15/23 17:35	JRT
Method: SM2540C Prep Method: METHOD										

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481610

481610-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Total Dissolved Solids	**1,500**		mg/L	20		2	309896	03/16/23	03/17/23	GKD
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	**1.7**		mg/L	0.6		1.1	310160	03/21/23	03/21/23	DNA
Method: TOTAL NITROGEN										
Total Nitrogen	**1.7**		mg/L			1	310199	03/21/23	03/21/23	SLL

< Value is less than indicated concentration
> Value exceeds indicated concentration
H Holding time was exceeded
J Estimated value
ND Not Detected

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	**Lab ID:** QC1052682	**Batch:** 309952
Matrix: Water	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052682 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Boron	3.9	J	ug/L	5.0	0.61	03/17/23	03/17/23

Type: Lab Control Sample	**Lab ID:** QC1052683	**Batch:** 309952
Matrix: Water	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052683 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Boron	93.90	100.0	ug/L	94%		85-115

Type: Matrix Spike	**Lab ID:** QC1052684	**Batch:** 309952
Matrix (Source ID): Water (481593-001)	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052684 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Boron	157.8	73.05	100.0	ug/L	85%		70-130	10

Type: Matrix Spike Duplicate	**Lab ID:** QC1052685	**Batch:** 309952
Matrix (Source ID): Water (481593-001)	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052685 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Boron	159.9	73.05	100.0	ug/L	87%		70-130	1	20	10

Type: Matrix Spike	**Lab ID:** QC1052730	**Batch:** 309952
Matrix (Source ID): Water (481595-001)	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052730 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Boron	126.2	35.74	100.0	ug/L	90%		70-130	10

Type: Matrix Spike Duplicate	**Lab ID:** QC1052731	**Batch:** 309952
Matrix (Source ID): Water (481595-001)	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052731 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Boron	123.1	35.74	100.0	ug/L	87%		70-130	2	20	10

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	Lab ID: QC1052262	Batch: 309812
Matrix: Drinking Water	Method: EPA 300.0	Prep Method: METHOD

QC1052262 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Chloride	ND		mg/L	1.0	0.026	03/15/23 15:36	03/15/23 15:44
Nitrogen, Nitrite	ND		mg/L	0.10	0.008	03/15/23 15:36	03/15/23 15:44
Nitrogen, Nitrate	ND		mg/L	0.10	0.005	03/15/23 15:36	03/15/23 15:44
Sulfate	ND		mg/L	1.0	0.14	03/15/23 15:36	03/15/23 15:44

Type: Lab Control Sample	Lab ID: QC1052263	Batch: 309812
Matrix: Drinking Water	Method: EPA 300.0	Prep Method: METHOD

QC1052263 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Chloride	47.06	50.00	mg/L	94%		90-110
Nitrogen, Nitrite	4.308	4.567	mg/L	94%		90-110
Nitrogen, Nitrate	4.336	4.518	mg/L	96%		90-110
Sulfate	24.46	25.00	mg/L	98%		90-110

Type: Matrix Spike	Lab ID: QC1052283	Batch: 309812
Matrix (Source ID): Water (481610-001)	Method: EPA 300.0	Prep Method: METHOD

QC1052283 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Chloride	258.8	243.1	20.00	mg/L	79%	NM	80-120	10
Nitrogen, Nitrite	1.687	ND	1.827	mg/L	92%		80-120	1
Nitrogen, Nitrate	3.151	1.327	1.807	mg/L	101%		80-120	1
Sulfate	549.1	550.7	10.00	mg/L	-16%	NM	80-120	10

Type: Matrix Spike Duplicate	Lab ID: QC1052284	Batch: 309812
Matrix (Source ID): Water (481610-001)	Method: EPA 300.0	Prep Method: METHOD

QC1052284 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Chloride	257.4	243.1	20.00	mg/L	72%	NM	80-120	1	20	10
Nitrogen, Nitrite	1.686	ND	1.827	mg/L	92%		80-120	0	20	1
Nitrogen, Nitrate	3.160	1.327	1.807	mg/L	101%		80-120	0	20	1
Sulfate	547.8	550.7	10.00	mg/L	-29%	NM	80-120	0	20	10

Type: Lab Control Sample	Lab ID: QC1052757	Batch: 309980
Matrix: Water	Method: EPA 351.2	Prep Method: METHOD

QC1052757 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Total Kjeldahl	2.429	2.500	mg/L	97%		90-110

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	Lab ID: QC1052758	Batch: 309980
Matrix: Water	Method: EPA 351.2	Prep Method: METHOD

QC1052758 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Total Kjeldahl	ND		mg/L	0.20	0.035	03/17/23	03/17/23

Type: Matrix Spike	Lab ID: QC1052759	Batch: 309980
Matrix (Source ID): Water (481607-001)	Method: EPA 351.2	

QC1052759 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	13.25	0.6328	12.50	mg/L	101%		90-110	2.5

Type: Matrix Spike Duplicate	Lab ID: QC1052760	Batch: 309980
Matrix (Source ID): Water (481607-001)	Method: EPA 351.2	

QC1052760 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	11.34	0.6328	12.50	mg/L	86%	*	90-110	16	20	2.5

Type: Matrix Spike	Lab ID: QC1052761	Batch: 309980
Matrix (Source ID): Water (481612-002)	Method: EPA 351.2	

QC1052761 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	11.45	0.3003	12.50	mg/L	89%	*	90-110	2.5

Type: Matrix Spike Duplicate	Lab ID: QC1052762	Batch: 309980
Matrix (Source ID): Water (481612-002)	Method: EPA 351.2	

QC1052762 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	12.83	0.3003	12.50	mg/L	100%		90-110	11	20	2.5

Type: Sample Duplicate	Lab ID: QC1052312	Batch: 309824
Matrix (Source ID): Water (481610-001)	Method: SM 2150B	

QC1052312 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Odor	ND	ND	TON			20	1

ENTHALPY ANALYTICAL

Batch QC

Type: Blank **Lab ID:** QC1052701 **Batch:** 309965
Matrix: Water **Method:** SM 4500-CL-G

QC1052701 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Chlorine, Total Residual	ND		mg/L	0.10	0.026	03/16/23 12:23	03/16/23 12:23

Type: Lab Control Sample **Lab ID:** QC1052702 **Batch:** 309965
Matrix: Water **Method:** SM 4500-CL-G

QC1052702 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Chlorine, Total Residual	1.000	1.000	mg/L	100%		80-120

Type: Sample Duplicate **Lab ID:** QC1052703 **Batch:** 309965
Matrix (Source ID): Water (481487-001) **Method:** SM 4500-CL-G

QC1052703 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Chlorine, Total Residual	ND	ND	mg/L			20	1

Type: Sample Duplicate **Lab ID:** QC1052326 **Batch:** 309828
Matrix (Source ID): Water (481562-001) **Method:** SM 4500-H+ B

QC1052326 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
pH	6.740	6.620	SU		2	20	1
Temperature	18.80	18.80	deg C		0	20	1

Type: Lab Control Sample **Lab ID:** QC1053794 **Batch:** 310320
Matrix: Water **Method:** SM 4500-NH3-G

QC1053794 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Ammonia-N	2.624	2.500	mg/L	105%		80-120

Type: Blank **Lab ID:** QC1053795 **Batch:** 310320
Matrix: Water **Method:** SM 4500-NH3-G

QC1053795 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Ammonia-N	ND		mg/L	0.10	0.045	03/23/23	03/23/23

ENTHALPY ANALYTICAL

Batch QC

Type: Matrix Spike | **Lab ID:** QC1053796 | **Batch:** 310320
Matrix (Source ID): Water (481518-004) | **Method:** SM 4500-NH3-G

QC1053796 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Ammonia-N	2.804	0.2410	2.500	mg/L	103%		80-120	1

Type: Matrix Spike Duplicate | **Lab ID:** QC1053797 | **Batch:** 310320
Matrix (Source ID): Water (481518-004) | **Method:** SM 4500-NH3-G

QC1053797 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Ammonia-N	2.809	0.2410	2.500	mg/L	103%		80-120	0	20	1

Type: Blank | **Lab ID:** QC1053314 | **Batch:** 310144
Matrix: Water | **Method:** SM 4500-P-B5-E

QC1053314 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Phosphorus	ND		mg/L	0.020	0.0054	03/22/23	03/22/23

Type: Lab Control Sample | **Lab ID:** QC1053315 | **Batch:** 310144
Matrix: Water | **Method:** SM 4500-P-B5-E

QC1053315 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Phosphorus	0.3940	0.4000	mg/L	99%		80-120

Type: Matrix Spike | **Lab ID:** QC1053316 | **Batch:** 310144
Matrix (Source ID): Water (481607-001) | **Method:** SM 4500-P-B5-E

QC1053316 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Phosphorus	1.108	0.1500	1.000	mg/L	96%		75-125	2.5

Type: Matrix Spike Duplicate | **Lab ID:** QC1053317 | **Batch:** 310144
Matrix (Source ID): Water (481607-001) | **Method:** SM 4500-P-B5-E

QC1053317 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Phosphorus	1.143	0.1500	1.000	mg/L	99%		75-125	3	20	2.5

ENTHALPY ANALYTICAL

Batch QC

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052313**
Matrix (Source ID):	**Water (481610-001)**	**Method:**	**SM2120B**
Batch:	**309825**		

QC1052313 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Color	ND	ND	ColorUnits			20	1

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052165**
Matrix (Source ID):	**Water (481487-001)**	**Method:**	**SM2130B**
Batch:	**309759**		

QC1052165 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Turbidity	0.1160	0.1150	NTU		1	20	1

Type:	**Blank**	**Lab ID:**	**QC1052515**
Matrix:	**Drinking Water**	**Method:**	**SM2540C**
Batch:	**309896**		
		Prep Method:	**METHOD**

QC1052515 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Dissolved Solids	ND		mg/L	10		03/16/23	03/17/23

Type:	**Lab Control Sample**	**Lab ID:**	**QC1052516**
Matrix:	**Drinking Water**	**Method:**	**SM2540C**
Batch:	**309896**		
		Prep Method:	**METHOD**

QC1052516 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Dissolved Solids	944.0	1000	mg/L	94%		90-110

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052517**
Matrix (Source ID):	**Water (481610-001)**	**Method:**	**SM2540C**
Batch:	**309896**		
		Prep Method:	**METHOD**

QC1052517 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Dissolved Solids	1,554	1530	mg/L		2	5	2

Type:	**Blank**	**Lab ID:**	**QC1053327**
Matrix:	**Water**	**Method:**	**SM2540D**
Batch:	**310160**		
		Prep Method:	**METHOD**

QC1053327 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Suspended Solids	ND		mg/L	0.5		03/21/23	03/21/23

Batch QC

Type:	**Sample Duplicate**	**Lab ID:**	**QC1053328**	**Batch:**	**310160**
Matrix (Source ID):	**Water (481633-001)**	**Method:**	**SM2540D**	**Prep Method:**	**METHOD**

QC1053328 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Suspended Solids	152.0	150.0	mg/L		1	5	6.7

* Value is outside QC limits
J Estimated value
ND Not Detected
NM Not Meaningful

Laboratory Job Number 481610

Subcontracted Products

Eurofins Southwest

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ranjit Clarke
Enthalpy Analytical LLC
931 W. Barkley Ave
Orange, California 92868

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JOB DESCRIPTION

481610

JOB NUMBER

570-131332-1

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

Eurofins Calscience

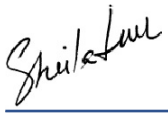
Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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3/22/2023 2:49:41 PM

Authorized for release by
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Designee for
Xuan Dang, Project Manager I
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Definitions/Glossary

Client: Enthalpy Analytical LLC
Project/Site: 481610

Job ID: 570-131332-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Enthalpy Analytical LLC
Project/Site: 481610

Job ID: 570-131332-1

Job ID: 570-131332-1

Laboratory: Eurofins Calscience

Narrative

Job Narrative
570-131332-1

Comments
No additional comments.

Receipt
The sample was received on 3/15/2023 5:50 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 1664A: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch. Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-312913.
Method: 1664.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Enthalpy Analytical LLC
Project/Site: 481610

Job ID: 570-131332-1

Client Sample ID: MCWP-MW04D

Lab Sample ID: 570-131332-1

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

Client: Enthalpy Analytical LLC
Project/Site: 481610

Job ID: 570-131332-1

General Chemistry

Client Sample ID: MCWP-MW04D
Date Collected: 03/15/23 11:45
Date Received: 03/15/23 17:50

Lab Sample ID: 570-131332-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		1.18	0.602	mg/L		03/20/23 07:25	03/21/23 09:05	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.00	1.00	mg/L		03/15/23 20:13	03/15/23 21:02	1
MBAS (SM 5540C)	ND		0.200	0.0500	mg/L		03/15/23 19:00	03/15/23 20:46	1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-312913/1-A
Matrix: Water
Analysis Batch: 313301

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 312913

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.00	0.510	mg/L		03/20/23 07:25	03/21/23 09:05	1

Lab Sample ID: LCS 570-312913/2-A
Matrix: Water
Analysis Batch: 313301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 312913

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM: Oil and Grease	40.0	37.00		mg/L		92	78 - 114

Lab Sample ID: LCSD 570-312913/3-A
Matrix: Water
Analysis Batch: 313301

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 312913

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM: Oil and Grease	40.0	39.00		mg/L		98	78 - 114	5	18

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: LCS 570-311954/2-A
Matrix: Water
Analysis Batch: 313458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311954

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	199	192.6		mg/L		97	84.6 - 115.4

Lab Sample ID: USB 570-313458/2
Matrix: Water
Analysis Batch: 313458

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.00	1.00	mg/L			03/15/23 18:33	1

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 570-312166/5-A
Matrix: Water
Analysis Batch: 312164

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 312166

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MBAS	ND		0.200	0.0500	mg/L		03/15/23 15:30	03/15/23 17:33	1

Lab Sample ID: LCS 570-312166/6-A
Matrix: Water
Analysis Batch: 312164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 312166

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
MBAS	0.500	0.4390		mg/L		88	83 - 122

Method: SM 5540C - Methylene Blue Active Substances (MBAS) (Continued)

Lab Sample ID: LCSD 570-312166/7-A
Matrix: Water
Analysis Batch: 312164

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 312166

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
MBAS			0.500	0.4562		mg/L		91	83 - 122	4	10

Client: Enthalpy Analytical LLC
Project/Site: 481610

Job ID: 570-131332-1

General Chemistry

Prep Batch: 311954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131332-1	MCWP-MW04D	Total/NA	Water	BOD Prep	
LCS 570-311954/2-A	Lab Control Sample	Total/NA	Water	BOD Prep	

Analysis Batch: 312164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131332-1	MCWP-MW04D	Total/NA	Water	SM 5540C	312166
MB 570-312166/5-A	Method Blank	Total/NA	Water	SM 5540C	312166
LCS 570-312166/6-A	Lab Control Sample	Total/NA	Water	SM 5540C	312166
LCSD 570-312166/7-A	Lab Control Sample Dup	Total/NA	Water	SM 5540C	312166

Prep Batch: 312166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131332-1	MCWP-MW04D	Total/NA	Water	SM 5540C	
MB 570-312166/5-A	Method Blank	Total/NA	Water	SM 5540C	
LCS 570-312166/6-A	Lab Control Sample	Total/NA	Water	SM 5540C	
LCSD 570-312166/7-A	Lab Control Sample Dup	Total/NA	Water	SM 5540C	

Prep Batch: 312913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131332-1	MCWP-MW04D	Total/NA	Water	1664A	
MB 570-312913/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-312913/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-312913/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 313301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131332-1	MCWP-MW04D	Total/NA	Water	1664A	312913
MB 570-312913/1-A	Method Blank	Total/NA	Water	1664A	312913
LCS 570-312913/2-A	Lab Control Sample	Total/NA	Water	1664A	312913
LCSD 570-312913/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	312913

Analysis Batch: 313458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131332-1	MCWP-MW04D	Total/NA	Water	SM 5210B	311954
USB 570-313458/2	Method Blank	Total/NA	Water	SM 5210B	
LCS 570-311954/2-A	Lab Control Sample	Total/NA	Water	SM 5210B	311954

Lab Chronicle

Client: Enthalpy Analytical LLC
Project/Site: 481610

Job ID: 570-131332-1

Client Sample ID: MCWP-MW04D

Date Collected: 03/15/23 11:45
Date Received: 03/15/23 17:50

Lab Sample ID: 570-131332-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			847 mL	1000 mL	312913	03/20/23 07:25	RY4P	EET CAL 4
Total/NA	Analysis	1664A		1			313301	03/21/23 09:05	L6IE	EET CAL 4
	Instrument ID: NO EQUIQ									
Total/NA	Prep	BOD Prep					311954	03/15/23 20:13	TN8Z	EET CAL 4
Total/NA	Analysis	SM 5210B		1	300 mL	300 mL	313458	03/15/23 21:02	U7UR	EET CAL 4
	Instrument ID: BOD3									
Total/NA	Prep	SM 5540C			100 mL	100 mL	312166	03/15/23 19:00	ZVB7	EET CAL 4
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	312164	03/15/23 20:46	TXA8	EET CAL 4
	Instrument ID: UV8									

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Enthalpy Analytical LLC
Project/Site: 481610

Job ID: 570-131332-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	3082	07-31-24
Oregon	NELAP	4175	02-02-24

Method Summary

Client: Enthalpy Analytical LLC
Project/Site: 481610

Job ID: 570-131332-1

Method	Method Description	Protocol	Laboratory
1664A	HEM and SGT-HEM	1664A	EET CAL 4
SM 5210B	BOD, 5-Day	SM	EET CAL 4
SM 5540C	Methylene Blue Active Substances (MBAS)	SM	EET CAL 4
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CAL 4
BOD Prep	Preparation, BOD	SM	EET CAL 4
SM 5540C	Preparation, Methylene Blue Active Substances (MBAS)	SM	EET CAL 4

Protocol References:

1664A = EPA-821-98-002

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

Client: Enthalpy Analytical LLC
Project/Site: 481610

Job ID: 570-131332-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-131332-1	MCWP-MW04D	Water	03/15/23 11:45	03/15/23 17:50

ENTHALPY ANALYTICAL

Enthalpy Analytical - Orange
Orange, CA 92868
(714) 771-6900 / Fax: (510) 486-0532

131332

Subcontract Laboratory:
Eurofins Southwest
2841 Dow Avenue
Suite 100
Tustin, CA 92780
ATTN: PROJECT # 57000393
PO #: Required, to be sent via email

Enthalpy Order: EO-481610
PM: Ranjit K Clarke
Email: Ranjit.Clarke@enthalpy.com
CC: incomingreports@enthalpy.com
Phone: (714) 771-9906

Results Due: Standard TAT
Report Level: II
Report To: MDL
EDDs: .DBF erpimsenhanced

Notes:

Sample ID	Collected	Lab ID	# Cont.	Matrix	Analysis Requested	Comment
MCWP-MW04D	15-MAR-2023 11:45	481610-001	1	Water	EPA 1664 Oil & Grease (Total) -OUT	
			1	Water	BOD	
			1	Water	Surfactants (MBAS)	

Notes:	Relinquished By:	Received By:
	[signature]	[signature]
	Date: 3/15/23	Date: 3/15/23 17:00
	[signature] Alex Cota EHOC	[signature] EC
	Date: 3/15/23 17:50	Date: 3/15/23 17:50
	Date:	Date:

3.4/3.3 se12

570-131332 Chain of Custody

Login Sample Receipt Checklist

Client: Enthalpy Analytical LLC

Job Number: 570-131332-1

Login Number: 131332
List Number: 1
Creator: Dang, Xuan

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

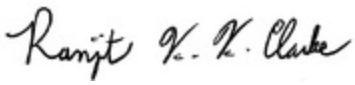
Lab Job Number: 481612
Report Level: II
Report Date: 03/24/2023

Analytical Report *prepared for:*

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Project: MALIBU - Malibu-Semi Annual

Authorized for release by:



Ranjit K Clarke, Client Services Manager
(714) 771-9906
Ranjit.Clarke@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #:	481612
Project No:	MALIBU
Location:	Malibu-Semi Annual
Date Received:	03/15/23

Sample ID	Lab ID	Collected	Matrix
SMBRP-13	481612-001	03/15/23 08:30	Water
MCWP-MW10	481612-002	03/15/23 09:50	Water
MCWP-MW06	481612-003	03/15/23 09:05	Water

ENTHALPY ANALYTICAL

Case Narrative

Rincon Consultants - Ventura 2060 Knoll Drive Unit B Ventura, CA 93001 Kiernan Brtalik	Lab Job Number: 481612 Project No: MALIBU Location: Malibu-Semi Annual Date Received: 03/15/23

This data package contains sample and QC results for three water samples, requested for the above referenced project on 03/15/23. The samples were received cold and intact.

Ion Chromatography (EPA 300.0 and EPA 300.0):
No analytical problems were encountered.

Total Phosphorus as P (SM 4500-P-B5-E):
No analytical problems were encountered.

Organic Nitrogen, by Calculation (ORGANIC NITROGEN):
No analytical problems were encountered.

Total Dissolved Solids (TDS) (SM2540C):
No analytical problems were encountered.

Total Coliform / E. coli by Quanti-Tray (SM 9223Bb):
No analytical problems were encountered.

Ammonia and TKN- Semi-Automated Method (SM 4500-NH3-G):
No analytical problems were encountered.

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 48612

Page: 1 of 1

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		Custom TAT:	

Enthalpy Analytical - Orange

931 W. Barkley Avenue, Orange, CA 92868

Phone 714-771-6900

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Quote #:	
Report To:	Kierna Brtalik	Proj. Name:	Malibu, - Semi-Annual
Email:		Proj. #:	
Address:	180. N. Ashwood Ave.	P.O. #:	
	Ventura, CA	Address:	
Phone:		Global ID:	
Fax:		Sampled By:	LANDON L. /krystina K

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Total/FECAL Coliforms - SM 9223 Quanti-tray	TKN, NH3, organic Nitrogen (calc)	EPA 300.0 (NO2, NO3)	Total Phosphorus	SM 2540C TDS	EPA 300.0 (NO3)	Test Instructions / Comments
1	SMBRP-13	3/15/23	0830	GW	5		X	X	X	X	X		2 COOLERS
2	MCWP - MW10	3/15/23	0950	GW	5		X	X	X	X	X		5.4/0.8
3	~~ECRE~~						X	X	X	X	X		4.9/1.1
4	~~MCWP-MW05~~										X	X	
5	MCWP - MW06	3/15/23	0905	GW	2						X	X	
6													
7													
8													
9													
10													

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	Krystal Collins	Krystina Collins	Rincon	3/15/23 1358
1 Received By:		EGA Wat	EA	3.15.23 1358
2 Relinquished By:		EGA Wat	EA	3.15.23 1545
2 Received By:		Ward	EA	3-15-23 1545
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants - Ventura

Project: Malibu-Semi-Annual

Date Received: 3/15/23

Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 2 ☐ No (skip section 2)

Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 5.4 #2: 4.9 #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 0.8 #2: 1.1 #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?	✓		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 3-15-23

ENTHALPY ANALYTICAL

Analysis Results for 481612

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #: 481612
Project No: MALIBU
Location: Malibu-Semi Annual
Date Received: 03/15/23

Sample ID: SMBRP-13 **Lab ID: 481612-001** **Collected: 03/15/23 08:30**
Matrix: Water

481612-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	1	309829	03/15/23 18:40	03/16/23 12:25	RKV
Nitrogen, Nitrate	**0.15**		mg/L	0.10	0.02	1	309829	03/15/23 18:40	03/16/23 12:25	RKV
Nitrogen, Nitrate/Nitrite	**0.15**		mg/L	0.10		1	309829	03/15/23 18:40	03/16/23 12:25	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.22**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Nitrogen, Total Kjeldahl	**0.22**	J	mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.63**		mg/L	0.020	0.0054	1	310144	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	**2.0**		MPN/100ml	1.0		1	309862	03/15/23 16:22	03/16/23 11:33	SMT
Coliform, Total	**37**		MPN/100ml	1.0		1	309862	03/15/23 16:22	03/16/23 11:33	SMT
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**290**		mg/L	20		2	309995	03/17/23	03/18/23	GKD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481612

Sample ID: MCWP-MW10	Lab ID: 481612-002	Collected: 03/15/23 09:50
	Matrix: Water	

481612-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	1	309829	03/15/23 18:40	03/16/23 13:06	RKV
Nitrogen, Nitrate	**0.83**		mg/L	0.10	0.02	1	309829	03/15/23 18:40	03/16/23 13:06	RKV
Nitrogen, Nitrate/Nitrite	**0.83**		mg/L	0.10		1	309829	03/15/23 18:40	03/16/23 13:06	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.30**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310320	03/23/23	03/23/23	PWM
Nitrogen, Total Kjeldahl	**0.30**	J	mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.083**		mg/L	0.020	0.0054	1	310144	03/22/23	03/22/23	ATP
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Coliform, Total	**140**		MPN/100ml	1.0		1	309880	03/15/23 17:13	03/16/23 14:07	VLC
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**2,000**		mg/L	20		2	309995	03/17/23	03/18/23	GKD

Sample ID: MCWP-MW06	Lab ID: 481612-003	Collected: 03/15/23 09:05
	Matrix: Water	

481612-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrate	ND		mg/L	0.10	0.02	1	309829	03/15/23 18:40	03/16/23 14:28	RKV
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**1,400**		mg/L	20		2	309995	03/17/23	03/18/23	GKD

< Value is less than indicated concentration
J Estimated value
ND Not Detected

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	Lab ID: QC1052327	Batch: 309829
Matrix: Drinking Water	Method: EPA 300.0	Prep Method: METHOD

QC1052327 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	03/15/23 18:40	03/16/23 10:42
Nitrogen, Nitrate	ND		mg/L	0.10	0.02	03/15/23 18:40	03/16/23 10:42
Nitrogen, Nitrate/Nitrite	ND		mg/L	0.10		03/15/23 18:40	03/16/23 10:42

Type: Lab Control Sample	Lab ID: QC1052328	Batch: 309829
Matrix: Drinking Water	Method: EPA 300.0	Prep Method: METHOD

QC1052328 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Nitrite	4.351	4.567	mg/L	95%		90-110
Nitrogen, Nitrate	4.398	4.518	mg/L	97%		90-110

Type: Matrix Spike	Lab ID: QC1052329	Batch: 309829
Matrix (Source ID): Drinking Water (481613-001)	Method: EPA 300.0	Prep Method: METHOD

QC1052329 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Nitrite	1.685	ND	1.827	mg/L	92%		80-120	1
Nitrogen, Nitrate	1.826	ND	1.807	mg/L	101%		80-120	1

Type: Matrix Spike Duplicate	Lab ID: QC1052330	Batch: 309829
Matrix (Source ID): Drinking Water (481613-001)	Method: EPA 300.0	Prep Method: METHOD

QC1052330 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Nitrite	1.710	ND	1.827	mg/L	94%		80-120	1	20	1
Nitrogen, Nitrate	1.877	ND	1.807	mg/L	104%		80-120	3	20	1

Type: Lab Control Sample	Lab ID: QC1052757	Batch: 309980
Matrix: Water	Method: SM 4500-NH3-G	

QC1052757 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Total Kjeldahl	2.429	2.500	mg/L	97%		80-120

Type: Blank	Lab ID: QC1052758	Batch: 309980
Matrix: Water	Method: SM 4500-NH3-G	

QC1052758 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Total Kjeldahl	ND		mg/L	0.20	0.035	03/17/23	03/17/23

ENTHALPY ANALYTICAL

Batch QC

Type: Matrix Spike **Lab ID: QC1052759** **Batch: 309980**
Matrix (Source ID): Water (481607-001) **Method: SM 4500-NH3-G**

QC1052759 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	13.25	0.6328	12.50	mg/L	101%		80-120	2.5

Type: Matrix Spike Duplicate **Lab ID: QC1052760** **Batch: 309980**
Matrix (Source ID): Water (481607-001) **Method: SM 4500-NH3-G**

QC1052760 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	11.34	0.6328	12.50	mg/L	86%		80-120	16	20	2.5

Type: Matrix Spike **Lab ID: QC1052761** **Batch: 309980**
Matrix (Source ID): Water (481612-002) **Method: SM 4500-NH3-G**

QC1052761 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	11.45	0.3003	12.50	mg/L	89%		80-120	2.5

Type: Matrix Spike Duplicate **Lab ID: QC1052762** **Batch: 309980**
Matrix (Source ID): Water (481612-002) **Method: SM 4500-NH3-G**

QC1052762 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	12.83	0.3003	12.50	mg/L	100%		80-120	11	20	2.5

Type: Lab Control Sample **Lab ID: QC1053794** **Batch: 310320**
Matrix: Water **Method: SM 4500-NH3-G**

QC1053794 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Ammonia-N	2.624	2.500	mg/L	105%		80-120

Type: Blank **Lab ID: QC1053795** **Batch: 310320**
Matrix: Water **Method: SM 4500-NH3-G**

QC1053795 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Ammonia-N	ND		mg/L	0.10	0.045	03/23/23	03/23/23

ENTHALPY ANALYTICAL

Batch QC

Type: Matrix Spike **Lab ID: QC1053796** **Batch: 310320**
Matrix (Source ID): Water (481518-004) **Method: SM 4500-NH3-G**

QC1053796 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Ammonia-N	2.804	0.2410	2.500	mg/L	103%		80-120	1

Type: Matrix Spike Duplicate **Lab ID: QC1053797** **Batch: 310320**
Matrix (Source ID): Water (481518-004) **Method: SM 4500-NH3-G**

QC1053797 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Ammonia-N	2.809	0.2410	2.500	mg/L	103%		80-120	0	20	1

Type: Blank **Lab ID: QC1053314** **Batch: 310144**
Matrix: Water **Method: SM 4500-P-B5-E**

QC1053314 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Phosphorus	ND		mg/L	0.020	0.0054	03/22/23	03/22/23

Type: Lab Control Sample **Lab ID: QC1053315** **Batch: 310144**
Matrix: Water **Method: SM 4500-P-B5-E**

QC1053315 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Phosphorus	0.3940	0.4000	mg/L	99%		80-120

Type: Matrix Spike **Lab ID: QC1053316** **Batch: 310144**
Matrix (Source ID): Water (481607-001) **Method: SM 4500-P-B5-E**

QC1053316 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Phosphorus	1.108	0.1500	1.000	mg/L	96%		75-125	2.5

Type: Matrix Spike Duplicate **Lab ID: QC1053317** **Batch: 310144**
Matrix (Source ID): Water (481607-001) **Method: SM 4500-P-B5-E**

QC1053317 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Phosphorus	1.143	0.1500	1.000	mg/L	99%		75-125	3	20	2.5

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	**Lab ID:** QC1052812	**Batch:** 309995
Matrix: Sea Water	**Method:** SM2540C	**Prep Method:** METHOD

QC1052812 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Dissolved Solids	ND		mg/L	10		03/17/23	03/18/23

Type: Lab Control Sample	**Lab ID:** QC1052813	**Batch:** 309995
Matrix: Sea Water	**Method:** SM2540C	**Prep Method:** METHOD

QC1052813 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Dissolved Solids	968.0	1000	mg/L	97%		90-110

Type: Sample Duplicate	**Lab ID:** QC1052814	**Batch:** 309995
Matrix (Source ID): Sea Water (481675-001)	**Method:** SM2540C	**Prep Method:** METHOD

QC1052814 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Dissolved Solids	23,940	23660	mg/L		1	5	20

ND Not Detected

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

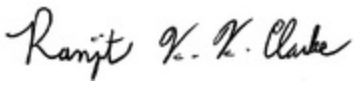
Lab Job Number: 481733
Report Level: II
Report Date: 03/30/2023

Analytical Report *prepared for:*

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Project: MALIBU - Malibu - Semi Annual

Authorized for release by:



Ranjit K Clarke, Client Services Manager
(714) 771-9906
Ranjit.Clarke@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #:	481733
Project No:	MALIBU
Location:	Malibu - Semi Annual
Date Received:	03/16/23

Sample ID	Lab ID	Collected	Matrix
SMBR-9	481733-001	03/16/23 09:00	Water

ENTHALPY ANALYTICAL

Case Narrative

Rincon Consultants - Ventura 2060 Knoll Drive Unit B Ventura, CA 93001 Kiernan Brtalik	Lab Job Number: 481733 Project No: MALIBU Location: Malibu - Semi Annual Date Received: 03/16/23

This data package contains sample and QC results for one water sample, requested for the above referenced project on 03/16/23. The sample was received cold and intact.

Metals (EPA 200.8):

- Boron was detected between the MDL and the RL in the method blank for batch 309952; this analyte was detected in the sample at a level at least 10 times that of the blank.
- No other analytical problems were encountered.

Ion Chromatography (EPA 300.0):
No analytical problems were encountered.

Total Carbon by High-Temperature Combust (SM 5310B):
No analytical problems were encountered.

Total Phosphorus as P (SM 4500-P-B5-E):
No analytical problems were encountered.

Total Nitrogen, by Calculation (TOTAL NITROGEN):
No analytical problems were encountered.

Organic Nitrogen, by Calculation (ORGANIC NITROGEN):
No analytical problems were encountered.

Total Dissolved Solids (TDS) (SM2540C):
No analytical problems were encountered.

Total Suspended Solids (TSS) (SM2540D):
No analytical problems were encountered.

Free Chlorine (SM 4500-CL-G):
No analytical problems were encountered.

pH of Aqueous Samples (SM 4500-H+ B):
No analytical problems were encountered.

Odor (SM 2150B):
No analytical problems were encountered.

Turbidity (SM2130B):
No analytical problems were encountered.

Color by Visual Comparison (SM2120B):
No analytical problems were encountered.

Total Coliform / E. coli by Quanti-Tray (SM 9223Bb):
No analytical problems were encountered.

Ammonia and TKN- Semi-Automated Method (SM 4500-NH3-G):

- Low recovery was observed for nitrogen, total kjeldahl in the MSD of N-001 (lab # 481607-001); the LCS was within limits, and the associated RPD was within limits.
- Low recovery was observed for nitrogen, total kjeldahl in the MS of MCWP-MW10 (lab # 481612-002); the LCS was within limits, and the associated RPD was within limits.
- No other analytical problems were encountered.

EPA 1664A Total O&G - OUT (EPA 1664A):
Eurofins Southwest in Tustin, CA performed the analysis (see sublab report section for certifications). Please see the Eurofins Southwest case narrative.

BOD (SM 5210B):
Eurofins Southwest in Tustin, CA performed the analysis (see sublab report section for certifications). Please see the Eurofins Southwest case narrative.

Surfactants (MBAS) (SM5540C):
Eurofins Southwest in Tustin, CA performed the analysis (see sublab report section for certifications). Please see the Eurofins Southwest case narrative.

ENTHALPHY ANALYTICAL, INC.		Chain of Custody Record	Turn Around Time (Rush by advanced notice only)					
931 W. Barkley Ave., Orange, CA 92868	ENTHALPY analytical, inc.	Lab No: 48733	Standard:	X	4 Day:		3 Day:	
Phone: (714) 771-6900 Fax: (714) 538-1209		Page: 3 of 3	2 Day:		1 Day:		Same Day:	
Billing: Enthalpy - SoCal		Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other					
c/o Montrose Environmental Group								
1 Park Plaza, Suite 1000, Irvine, CA 92614								

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Name:	Malibu - ~~Annual~~ Semi-Annual
Report To:	Kiernan Brtalik	Number:	
Email:		P.O. #:	
Address:	180 N. Ashwood Ave.	Address:	
	Ventura, CA 93003		
Phone:		Global ID:	
Cell:		Sampled By:	Landon L. / Krystina C.

Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: EPA 1604M FSH/FSL/MPCT (see list)	EPA 508 Past/PCBs	Total/Fecal Coliform SM 9223 Quantitray	EPA 200.7 (B)	EPA 300.0: Cl, NO2, NO3, SO4	TKN, NH3, Phosphorus	SM 5310C TOC; BOD, TSS, TDS	pH, Residual Cl, MBAS, Turb, Color, Odor	EPA 1664A Oil & Grease	Organic Nitrogen, Total Nitrogen	Test Instructions / Comments
SMBRP-9	3/16/23	0900	GW	11		X	X	X	X	X	X	X	X	X	X	2-8/1-6
~~SMBRP-12~~						X	X									
~~MCWP-MW04S~~						X	X									
~~MCWP-MW04D~~						X	X									
~~MCWP-MW07S~~						X	X									
~~MCWP-MW07D~~						X	X									
~~MCWP-MW09~~						X	X									

	Signature	Print Name	Company / Title	Date / Time
1 Relinquished By:	Krystina Collins	Krystina Collins	Rincon	3/16/23 1348
1 Received By:	GGawat	GGawat	EA	3-16-23 1348
2 Relinquished By:	GGawat	GGawat	EA	3.16.23 1610
2 Received By:	Anneliese Summers	Anneliese Summers	EA	3/16/23 1610
3 Relinquished By:				
3 Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants

Project: ~~Malibu~~ Malibu - Semi

Date Received: 3/16/23 ~~3/16/23~~

Sampler's Name Present: ☐ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☒ Yes, How many? 1 ☐ No (skip section 2)

Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 2.8 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☒ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 1.6 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	X		
Are sample IDs present?	X		
Are sampling dates & times present?	X		
Is a relinquished signature present?	X		
Are the tests required clearly indicated on the COC?	X		
Are custody seals present?		X	
If custody seals are present, were they intact?			X
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	X		~~X~~ AS 3/16/23
Did all samples arrive intact? If no, indicate in Section 4 below.	X		
Did all bottle labels agree with COC? (ID, dates and times)	X		
Were the samples collected in the correct containers for the required tests?	X		
Are the containers labeled with the correct preservatives?	X		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			X
Was a sufficient amount of sample submitted for the requested tests?	X		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 3/16/23

ENTHALPY ANALYTICAL

Analysis Results for 481733

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #: 481733
Project No: MALIBU
Location: Malibu - Semi Annual
Date Received: 03/16/23

Sample ID: SMBR-9 **Lab ID: 481733-001** **Collected: 03/16/23 09:00**
Matrix: Water

481733-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.8 Prep Method: EPA 200.8										
Boron	**630**		ug/L	50	6.1	10	309952	03/17/23	03/23/23	JCP
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**190**		mg/L	1.0	0.50	1	309955	03/17/23 10:32	03/17/23 14:19	RKV
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	1	309955	03/17/23 10:32	03/17/23 14:19	RKV
Nitrogen, Nitrate	**10**		mg/L	0.10	0.02	1	309955	03/17/23 10:32	03/17/23 14:19	RKV
Sulfate	**260**		mg/L	13	13	10	309955	03/17/23 10:32	03/17/23 14:40	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	**0.43**		mg/L	0.40	0.070	1	309980	03/17/23	03/17/23	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.43**		mg/L			1	310371	03/23/23	03/23/23	SLL
Method: SM 2150B										
Odor	ND	H	TON	1.0		1	309961	03/17/23 10:36	03/17/23 10:36	JRT
Method: SM 4500-CL-G										
Chlorine, Total Residual	**0.027**	H,J	mg/L	0.10	0.026	1	310015	03/17/23 17:12	03/17/23 17:12	WWC
Method: SM 4500-H+ B										
pH	**7.49**	H	SU			1	309976	03/17/23 11:06	03/17/23 11:06	JRT
Temperature	**22.70**	H	deg C	1.00		1	309976	03/17/23 11:06	03/17/23 11:06	JRT
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	310325	03/23/23	03/23/23	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.023**		mg/L	0.020	0.0054	1	310752	03/29/23	03/29/23	WWC
Method: SM 5310B										
Total Organic Carbon	**6.3**		mg/L	1.0	0.23	1	310081	03/18/23	03/18/23	PWM
Method: SM 9223Bb										
Coliform, Total	**1.0**		MPN/100ml	1.0		1	309957	03/16/23 16:56	03/17/23 12:28	SMT
Fecal Coliform	<1.0		MPN/100ml	1.0		1	309957	03/16/23 16:56	03/17/23 12:28	SMT
Method: SM2120B										
Color	**25**		ColorUnits	5		1	309962	03/17/23 10:36	03/17/23 10:36	JRT
Method: SM2130B										
Turbidity	**15**		NTU	0.10	0.02	1	309960	03/17/23 10:36	03/17/23 10:36	JRT

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 481733

481733-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**1,300**		mg/L	20		2	309998	03/17/23	03/18/23	GKD
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	**26**		mg/L	0.6		1.1	310179	03/21/23	03/21/23	DNA
Method: TOTAL NITROGEN										
Total Nitrogen	**10**		mg/L			1	310199	03/21/23	03/21/23	SLL

< Value is less than indicated concentration
H Holding time was exceeded
J Estimated value
ND Not Detected

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	**Lab ID:** QC1052682	**Batch:** 309952
Matrix: Water	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052682 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Boron	3.9	J	ug/L	5.0	0.61	03/17/23	03/17/23

Type: Lab Control Sample	**Lab ID:** QC1052683	**Batch:** 309952
Matrix: Water	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052683 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Boron	93.90	100.0	ug/L	94%		85-115

Type: Matrix Spike	**Lab ID:** QC1052684	**Batch:** 309952
Matrix (Source ID): Water (481593-001)	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052684 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Boron	157.8	73.05	100.0	ug/L	85%		70-130	10

Type: Matrix Spike Duplicate	**Lab ID:** QC1052685	**Batch:** 309952
Matrix (Source ID): Water (481593-001)	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052685 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Boron	159.9	73.05	100.0	ug/L	87%		70-130	1	20	10

Type: Matrix Spike	**Lab ID:** QC1052730	**Batch:** 309952
Matrix (Source ID): Water (481595-001)	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052730 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Boron	126.2	35.74	100.0	ug/L	90%		70-130	10

Type: Matrix Spike Duplicate	**Lab ID:** QC1052731	**Batch:** 309952
Matrix (Source ID): Water (481595-001)	**Method:** EPA 200.8	**Prep Method:** EPA 200.8

QC1052731 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Boron	123.1	35.74	100.0	ug/L	87%		70-130	2	20	10

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	**Lab ID:** QC1052687	**Batch:** 309955
Matrix: Water	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1052687 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Chloride	ND		mg/L	1.0	0.50	03/17/23 10:32	03/17/23 11:35
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	03/17/23 10:32	03/17/23 11:35
Nitrogen, Nitrate	ND		mg/L	0.10	0.02	03/17/23 10:32	03/17/23 11:35
Sulfate	ND		mg/L	1.3	1.3	03/17/23 10:32	03/17/23 11:35

Type: Lab Control Sample	**Lab ID:** QC1052688	**Batch:** 309955
Matrix: Water	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1052688 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Chloride	47.19	50.00	mg/L	94%		90-110
Nitrogen, Nitrite	4.264	4.567	mg/L	93%		90-110
Nitrogen, Nitrate	4.355	4.518	mg/L	96%		90-110
Sulfate	24.92	25.00	mg/L	100%		90-110

Type: Matrix Spike	**Lab ID:** QC1052689	**Batch:** 309955
Matrix (Source ID): Water (481735-001)	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1052689 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Chloride	197.2	180.3	20.00	mg/L	84%	NM	80-120	1
Nitrogen, Nitrite	1.690	ND	1.827	mg/L	92%		80-120	1
Nitrogen, Nitrate	3.801	2.015	1.807	mg/L	99%		80-120	1
Sulfate	492.9	546.2	10.00	mg/L	-533%	E,NM	80-120	1

Type: Matrix Spike Duplicate	**Lab ID:** QC1052690	**Batch:** 309955
Matrix (Source ID): Water (481735-001)	**Method:** EPA 300.0	**Prep Method:** METHOD

QC1052690 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Chloride	197.3	180.3	20.00	mg/L	85%	NM	80-120	0	20	1
Nitrogen, Nitrite	1.704	ND	1.827	mg/L	93%		80-120	1	20	1
Nitrogen, Nitrate	3.813	2.015	1.807	mg/L	99%		80-120	0	20	1
Sulfate	492.4	546.2	10.00	mg/L	-538%	E,NM	80-120		20	1

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike**	**Lab ID:**	**QC1052856**	**Batch:**	**309955**
Matrix (Source ID):	**Water (481640-005)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052856 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Chloride	23.86	5.340	20.00	mg/L	93%		80-120	1
Nitrogen, Nitrite	1.839	0.1432	1.827	mg/L	93%		80-120	1
Nitrogen, Nitrate	2.253	0.4824	1.807	mg/L	98%		80-120	1
Sulfate	38.77	29.10	10.00	mg/L	97%		80-120	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1052857**	**Batch:**	**309955**
Matrix (Source ID):	**Water (481640-005)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052857 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Chloride	24.17	5.340	20.00	mg/L	94%		80-120	1	20	1
Nitrogen, Nitrite	1.870	0.1432	1.827	mg/L	95%		80-120	2	20	1
Nitrogen, Nitrate	2.273	0.4824	1.807	mg/L	99%		80-120	1	20	1
Sulfate	38.86	29.10	10.00	mg/L	98%		80-120	0	20	1

Type:	**Lab Control Sample**	**Lab ID:**	**QC1052757**	**Batch:**	**309980**
Matrix:	**Water**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1052757 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Total Kjeldahl	2.429	2.500	mg/L	97%		90-110

Type:	**Blank**	**Lab ID:**	**QC1052758**	**Batch:**	**309980**
Matrix:	**Water**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1052758 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Total Kjeldahl	ND		mg/L	0.20	0.035	03/17/23	03/17/23

Type:	**Matrix Spike**	**Lab ID:**	**QC1052759**	**Batch:**	**309980**
Matrix (Source ID):	**Water (481607-001)**	**Method:**	**EPA 351.2**		

QC1052759 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	13.25	0.6328	12.50	mg/L	101%		90-110	2.5

ENTHALPY ANALYTICAL

Batch QC

Type: Matrix Spike Duplicate **Lab ID:** QC1052760 **Batch:** 309980
Matrix (Source ID): Water (481607-001) **Method:** EPA 351.2

QC1052760 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	11.34	0.6328	12.50	mg/L	86%	*	90-110	16	20	2.5

Type: Matrix Spike **Lab ID:** QC1052761 **Batch:** 309980
Matrix (Source ID): Water (481612-002) **Method:** EPA 351.2

QC1052761 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	11.45	0.3003	12.50	mg/L	89%	*	90-110	2.5

Type: Matrix Spike Duplicate **Lab ID:** QC1052762 **Batch:** 309980
Matrix (Source ID): Water (481612-002) **Method:** EPA 351.2

QC1052762 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	12.83	0.3003	12.50	mg/L	100%		90-110	11	20	2.5

Type: Sample Duplicate **Lab ID:** QC1052696 **Batch:** 309961
Matrix (Source ID): Water (481733-001) **Method:** SM 2150B

QC1052696 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Odor	ND	ND	TON			20	1

Type: Blank **Lab ID:** QC1052873 **Batch:** 310015
Matrix: Water **Method:** SM 4500-CL-G

QC1052873 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Chlorine, Total Residual	ND		mg/L	0.10	0.026	03/17/23 17:12	03/17/23 17:12

Type: Lab Control Sample **Lab ID:** QC1052874 **Batch:** 310015
Matrix: Water **Method:** SM 4500-CL-G

QC1052874 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Chlorine, Total Residual	1.020	1.000	mg/L	102%		80-120

ENTHALPY ANALYTICAL

Batch QC

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052875**	**Batch:**	**310015**
Matrix (Source ID):	**Water (481686-001)**	**Method:**	**SM 4500-CL-G**		

QC1052875 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Chlorine, Total Residual	ND	ND	mg/L			20	1

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052738**	**Batch:**	**309976**
Matrix (Source ID):	**Water (481597-001)**	**Method:**	**SM 4500-H+ B**		

QC1052738 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
pH	5.320	5.340	SU		0	20	1
Temperature	19.70	19.30	deg C		2	20	1

Type:	**Lab Control Sample**	**Lab ID:**	**QC1053807**	**Batch:**	**310325**
Matrix:	**Water**	**Method:**	**SM 4500-NH3-G**		

QC1053807 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Ammonia-N	2.623	2.500	mg/L	105%		80-120

Type:	**Blank**	**Lab ID:**	**QC1053808**	**Batch:**	**310325**
Matrix:	**Water**	**Method:**	**SM 4500-NH3-G**		

QC1053808 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Ammonia-N	ND		mg/L	0.10	0.045	03/23/23	03/23/23

Type:	**Matrix Spike**	**Lab ID:**	**QC1053809**	**Batch:**	**310325**
Matrix (Source ID):	**Water (481648-001)**	**Method:**	**SM 4500-NH3-G**	**Prep Method:**	**METHOD**

QC1053809 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Ammonia-N	2.632	ND	2.500	mg/L	105%		80-120	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1053810**	**Batch:**	**310325**
Matrix (Source ID):	**Water (481648-001)**	**Method:**	**SM 4500-NH3-G**	**Prep Method:**	**METHOD**

QC1053810 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Ammonia-N	2.559	ND	2.500	mg/L	102%		80-120	3	20	1

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike**	**Lab ID:**	**QC1053811**	**Batch:**	**310325**
Matrix (Source ID):	**Water (481549-001)**	**Method:**	**SM 4500-NH3-G**	**Prep Method:**	**METHOD**

QC1053811 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Ammonia-N	2.798	0.1118	2.500	mg/L	107%		80-120	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1053812**	**Batch:**	**310325**
Matrix (Source ID):	**Water (481549-001)**	**Method:**	**SM 4500-NH3-G**	**Prep Method:**	**METHOD**

QC1053812 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Ammonia-N	2.778	0.1118	2.500	mg/L	107%		80-120	1	20	1

Type:	**Blank**	**Lab ID:**	**QC1055197**	**Batch:**	**310752**
Matrix:	**Water**	**Method:**	**SM 4500-P-B5-E**		

QC1055197 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Phosphorus	ND		mg/L	0.020	0.0054	03/29/23	03/29/23

Type:	**Lab Control Sample**	**Lab ID:**	**QC1055198**	**Batch:**	**310752**
Matrix:	**Water**	**Method:**	**SM 4500-P-B5-E**		

QC1055198 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Phosphorus	0.3830	0.4000	mg/L	96%		80-120

Type:	**Matrix Spike**	**Lab ID:**	**QC1055199**	**Batch:**	**310752**
Matrix (Source ID):	**Water (481700-001)**	**Method:**	**SM 4500-P-B5-E**		

QC1055199 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Phosphorus	0.9175	ND	1.000	mg/L	91%		75-125	2.5

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1055200**	**Batch:**	**310752**
Matrix (Source ID):	**Water (481700-001)**	**Method:**	**SM 4500-P-B5-E**		

QC1055200 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Phosphorus	0.9400	ND	1.000	mg/L	94%		75-125	2	20	2.5

ENTHALPY ANALYTICAL

Batch QC

Type: Lab Control Sample | **Lab ID:** QC1053090 | **Batch:** 310081
Matrix: Sea Water | **Method:** SM 5310B

QC1053090 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Organic Carbon	9.963	10.00	mg/L	100%		80-120

Type: Blank | **Lab ID:** QC1053091 | **Batch:** 310081
Matrix: Sea Water | **Method:** SM 5310B

QC1053091 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Organic Carbon	ND		mg/L	1.0	0.23	03/18/23	03/18/23

Type: Matrix Spike | **Lab ID:** QC1053099 | **Batch:** 310081
Matrix (Source ID): Water (481671-001) | **Method:** SM 5310B

QC1053099 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Total Organic Carbon	94.43	10.74	80.00	mg/L	105%		80-120	8

Type: Matrix Spike Duplicate | **Lab ID:** QC1053100 | **Batch:** 310081
Matrix (Source ID): Water (481671-001) | **Method:** SM 5310B

QC1053100 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Total Organic Carbon	92.71	10.74	80.00	mg/L	102%		80-120	2	20	8

Type: Sample Duplicate | **Lab ID:** QC1052697 | **Batch:** 309962
Matrix (Source ID): Water (481733-001) | **Method:** SM2120B

QC1052697 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Color	25.00	25.00	ColorUnits		0	20	1

Type: Sample Duplicate | **Lab ID:** QC1052695 | **Batch:** 309960
Matrix (Source ID): Water (481733-001) | **Method:** SM2130B

QC1052695 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Turbidity	15.50	15.40	NTU		1	20	1

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	Lab ID: QC1052819	Batch: 309998
Matrix: Sea Water	Method: SM2540C	Prep Method: METHOD

QC1052819 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Dissolved Solids	ND		mg/L	10		03/17/23	03/18/23

Type: Lab Control Sample	Lab ID: QC1052820	Batch: 309998
Matrix: Sea Water	Method: SM2540C	Prep Method: METHOD

QC1052820 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Dissolved Solids	1,000	1000	mg/L	100%		90-110

Type: Sample Duplicate	Lab ID: QC1052821	Batch: 309998
Matrix (Source ID): Water (481715-001)	Method: SM2540C	Prep Method: METHOD

QC1052821 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Dissolved Solids	64,880	63460	mg/L		2	5	20

Type: Blank	Lab ID: QC1053384	Batch: 310179
Matrix: Water	Method: SM2540D	Prep Method: METHOD

QC1053384 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Suspended Solids	ND		mg/L	0.5		03/21/23	03/21/23

Type: Sample Duplicate	Lab ID: QC1053385	Batch: 310179
Matrix (Source ID): Water (481313-007)	Method: SM2540D	Prep Method: METHOD

QC1053385 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Suspended Solids	186.7	180.0	mg/L		4	5	33

* Value is outside QC limits
E Response exceeds instrument's linear range
J Estimated value
ND Not Detected
NM Not Meaningful

Laboratory Job Number 481733

Subcontracted Products

Eurofins Southwest

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ranjit Clarke
Enthalpy Analytical LLC
931 W. Barkley Ave
Orange, California 92868

Generated 3/28/2023 12:28:53 PM

JOB DESCRIPTION

481733

JOB NUMBER

570-131735-1

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

Eurofins Calscience

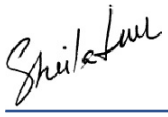
Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Enthalpy Analytical LLC
Project/Site: 481733

Job ID: 570-131735-1

Job ID: 570-131735-1

Laboratory: Eurofins Calscience

Narrative

Job Narrative
570-131735-1

Comments
No additional comments.

Receipt
The sample was received on 3/17/2023 5:15 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.5º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 1664A: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.
Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-313432.
Method: 1664.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Enthalpy Analytical LLC
Project/Site: 481733

Job ID: 570-131735-1

Client Sample ID: SMBR-9 **Lab Sample ID: 570-131735-1**

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

Client: Enthalpy Analytical LLC
Project/Site: 481733

Job ID: 570-131735-1

General Chemistry

Client Sample ID: SMBR-9
Date Collected: 03/16/23 09:00
Date Received: 03/17/23 17:15

Lab Sample ID: 570-131735-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease (1664A)	ND		1.19	0.605	mg/L		03/22/23 07:00	03/22/23 09:35	1
Biochemical Oxygen Demand (SM 5210B)	ND		2.00	1.00	mg/L		03/17/23 20:56	03/17/23 21:24	1
MBAS (SM 5540C)	ND		0.200	0.0500	mg/L		03/17/23 22:30	03/17/23 23:06	1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 570-313432/1-A
Matrix: Water
Analysis Batch: 313715

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 313432

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM: Oil and Grease	ND		1.00	0.510	mg/L		03/22/23 07:00	03/22/23 09:35	1

Lab Sample ID: LCS 570-313432/2-A
Matrix: Water
Analysis Batch: 313715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 313432

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
HEM: Oil and Grease	40.0	36.80		mg/L		92	78 - 114

Lab Sample ID: LCSD 570-313432/3-A
Matrix: Water
Analysis Batch: 313715

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 313432

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
HEM: Oil and Grease	40.0	38.30		mg/L		96	78 - 114	4	18

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: LCS 570-312571/2-A
Matrix: Water
Analysis Batch: 314247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 312571

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biochemical Oxygen Demand	199	195.9		mg/L		99	84.6 - 115.4

Lab Sample ID: USB 570-314247/2
Matrix: Water
Analysis Batch: 314247

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.00	1.00	mg/L			03/17/23 12:13	1

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 570-312677/5-A
Matrix: Water
Analysis Batch: 312796

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 312677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MBAS	ND		0.200	0.0500	mg/L		03/17/23 15:30	03/17/23 16:40	1

Lab Sample ID: LCS 570-312677/6-A
Matrix: Water
Analysis Batch: 312796

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 312677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
MBAS	0.500	0.4466		mg/L		89	83 - 122

Method: SM 5540C - Methylene Blue Active Substances (MBAS) (Continued)

Lab Sample ID: LCSD 570-312677/7-A
Matrix: Water
Analysis Batch: 312796

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 312677

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
MBAS			0.500	0.4575		mg/L		92	83 - 122	2	10

General Chemistry

Prep Batch: 312571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131735-1	SMBR-9	Total/NA	Water	BOD Prep	
LCS 570-312571/2-A	Lab Control Sample	Total/NA	Water	BOD Prep	

Prep Batch: 312677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131735-1	SMBR-9	Total/NA	Water	SM 5540C	
MB 570-312677/5-A	Method Blank	Total/NA	Water	SM 5540C	
LCS 570-312677/6-A	Lab Control Sample	Total/NA	Water	SM 5540C	
LCSD 570-312677/7-A	Lab Control Sample Dup	Total/NA	Water	SM 5540C	

Analysis Batch: 312796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131735-1	SMBR-9	Total/NA	Water	SM 5540C	312677
MB 570-312677/5-A	Method Blank	Total/NA	Water	SM 5540C	312677
LCS 570-312677/6-A	Lab Control Sample	Total/NA	Water	SM 5540C	312677
LCSD 570-312677/7-A	Lab Control Sample Dup	Total/NA	Water	SM 5540C	312677

Prep Batch: 313432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131735-1	SMBR-9	Total/NA	Water	1664A	
MB 570-313432/1-A	Method Blank	Total/NA	Water	1664A	
LCS 570-313432/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 570-313432/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	

Analysis Batch: 313715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131735-1	SMBR-9	Total/NA	Water	1664A	313432
MB 570-313432/1-A	Method Blank	Total/NA	Water	1664A	313432
LCS 570-313432/2-A	Lab Control Sample	Total/NA	Water	1664A	313432
LCSD 570-313432/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	313432

Analysis Batch: 314247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-131735-1	SMBR-9	Total/NA	Water	SM 5210B	312571
USB 570-314247/2	Method Blank	Total/NA	Water	SM 5210B	
LCS 570-312571/2-A	Lab Control Sample	Total/NA	Water	SM 5210B	312571

Lab Chronicle

Client: Enthalpy Analytical LLC
Project/Site: 481733

Job ID: 570-131735-1

Client Sample ID: SMBR-9
Date Collected: 03/16/23 09:00
Date Received: 03/17/23 17:15

Lab Sample ID: 570-131735-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			843 mL	1000 mL	313432	03/22/23 07:00	RY4P	EET CAL 4
Total/NA	Analysis	1664A		1			313715	03/22/23 09:35	L6IE	EET CAL 4
	Instrument ID: NO EQUIQ									
Total/NA	Prep	BOD Prep					312571	03/17/23 20:56	U7UR	EET CAL 4
Total/NA	Analysis	SM 5210B		1	300 mL	300 mL	314247	03/17/23 21:24	U7UR	EET CAL 4
	Instrument ID: BOD3									
Total/NA	Prep	SM 5540C			100 mL	100 mL	312677	03/17/23 22:30	TXA8	EET CAL 4
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	312796	03/17/23 23:06	TXA8	EET CAL 4
	Instrument ID: UV8									

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: Enthalpy Analytical LLC
Project/Site: 481733

Job ID: 570-131735-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	3082	07-31-24
Oregon	NELAP	4175	02-02-24

Method Summary

Client: Enthalpy Analytical LLC
Project/Site: 481733

Job ID: 570-131735-1

Method	Method Description	Protocol	Laboratory
1664A	HEM and SGT-HEM	1664A	EET CAL 4
SM 5210B	BOD, 5-Day	SM	EET CAL 4
SM 5540C	Methylene Blue Active Substances (MBAS)	SM	EET CAL 4
1664A	HEM and SGT-HEM (Aqueous)	1664A	EET CAL 4
BOD Prep	Preparation, BOD	SM	EET CAL 4
SM 5540C	Preparation, Methylene Blue Active Substances (MBAS)	SM	EET CAL 4

Protocol References:

1664A = EPA-821-98-002

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

Client: Enthalpy Analytical LLC
Project/Site: 481733

Job ID: 570-131735-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-131735-1	SMBR-9	Water	03/16/23 09:00	03/17/23 17:15

ENTHALPY ANALYTICAL

Enthalpy Analytical - Orange
Orange, CA 92868
(714) 771-6900 / Fax: (510) 486-0532

131735

Subcontract Laboratory:
Eurofins Southwest
2841 Dow Avenue
Suite 100
Tustin, CA 92780
ATTN: PROJECT # 57000393
PO #: Required, to be sent via email

Enthalpy Order: EO-481733
PM: Ranjit K Clarke
Email: Ranjit.Clarke@enthalpy.com
CC: incomingreports@enthalpy.com
Phone: (714) 771-9906

Results Due: Standard TAT
Report Level: II
Report To: MDL
EDDs: .DBF erpimsenhanced

Notes:

Sample ID	Collected	Lab ID	# Cont.	Matrix	Analysis Requested	Comment
SMBR-9	16-MAR-2023 09:00	481733-001	1	Water	EPA 1664 Oil & Grease (Total) - SUB	
			1	Water	BOD	
			1	Water	Surfactants (MBAS) - SUB	

Notes:	Relinquished By:	Received By:
	EA	EC
	Date: 3/17/23 17:15	Date: 3/17/23 1715
	Date:	Date:
	Date:	Date:

3.6/2.5 SC1^2

570-131735 Chain of Custody

Login Sample Receipt Checklist

Client: Enthalpy Analytical LLC

Job Number: 570-131735-1

Login Number: 131735
List Number: 1
Creator: Luu, Sheila

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

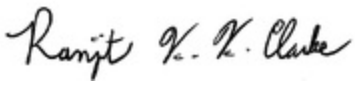
Lab Job Number: 481735
Report Level: II
Report Date: 03/24/2023

Analytical Report *prepared for:*

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Project: MALIBU - Malibu- Semi Annual

Authorized for release by:



Ranjit K Clarke, Client Services Manager
(714) 771-9906
Ranjit.Clarke@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

Sample Summary

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #:	481735
Project No:	MALIBU
Location:	Malibu- Semi Annual
Date Received:	03/16/23

Sample ID	Lab ID	Collected	Matrix
MCWP-MW05	481735-001	03/16/23 12:30	Water
CCPE	481735-002	03/16/23 09:50	Water

ENTHALPY ANALYTICAL

Case Narrative

Rincon Consultants - Ventura 2060 Knoll Drive Unit B Ventura, CA 93001 Kiernan Brtalik	Lab Job Number: 481735 Project No: MALIBU Location: Malibu- Semi Annual Date Received: 03/16/23

This data package contains sample and QC results for two water samples, requested for the above referenced project on 03/16/23. The samples were received cold and intact.

Ion Chromatography (EPA 300.0):
No analytical problems were encountered.

Total Phosphorus as P (SM 4500-P-B5-E):
No analytical problems were encountered.

Total Dissolved Solids (TDS) (SM2540C):
No analytical problems were encountered.

Total Coliform / E. coli by Quanti-Tray (SM 9223Bb):
No analytical problems were encountered.

ENTHALPY ANALYTICAL

Chain of Custody Record

Lab No: 481735

Page: of

Turn Around Time (rush by advanced notice only)

Standard:	X	5 Day:		3 Day:	
2 Day:		1 Day:		~~Custom TAT:~~	

Enthalpy Analytical - Orange

931 W. Barkley Avenue, Orange, CA 92868

Phone 714-771-6900

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Quote #:	
Report To:	Kiernan Brtalik	Proj. Name:	Malibu; - Semi-Annual
Email:		Proj. #:	
Address:	180 N. Ashwood Ave, Ventura, CA	P.O. #:	
		Address:	
Phone:		Global ID:	
Fax:		Sampled By:	Landon L. / Krystina C.

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Total/Fecal Coliforms - SM 9223 (Quantitray)	TKN, NH3, Organic N (calculation)	EPA 300.0 (NO2, NO3)	Total Phosphorus	SM 2540C TDS	EPA 300.0 (NO3)	Test Instructions / Comments
1	~~CCPE~~ LC 3/16/23	~~3/16/23~~	~~0950~~	~~GW~~	~~5~~		~~x~~	~~x~~	~~x~~	~~x~~			2-8 / 1.6
2	~~5~~ MCWP-MW05	3/16/23	1230	GW	2						x	x	
3	CCPE	3/16/23	0950	GW	5		x	x	x	x	x		
4													
5													
6													
7													
8													
9													
10													

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:	Krystina Collins	Krystina Collins	Rincon	3/16/23 1348
[1] Received By:		Goawat	EA	3.16.23 1348
[2] Relinquished By:		Goawat	EA	3.16.23 1616
[2] Received By:		Annalyse Smallcomb	EA	3/16/23 1610
[3] Relinquished By:				
[3] Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Project: Malibu - Semi Annual

Date Received: 3/16/23 Sampler's Name Present: ☒ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☒ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 2.8 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☒ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 1.6 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	X		
Are sample IDs present?	X		
Are sampling dates & times present?	X		
Is a relinquished signature present?	X		
Are the tests required clearly indicated on the COC?	X		
Are custody seals present?		X	
If custody seals are present, were they intact?			X
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			X
Did all samples arrive intact? If no, indicate in Section 4 below.	X		
Did all bottle labels agree with COC? (ID, dates and times)	X		
Were the samples collected in the correct containers for the required tests?	X		
Are the containers labeled with the correct preservatives?	X		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			X
Was a sufficient amount of sample submitted for the requested tests?	X		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 3/16/23

ENTHALPY ANALYTICAL

Analysis Results for 481735

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #: 481735
Project No: MALIBU
Location: Malibu- Semi Annual
Date Received: 03/16/23

Sample ID: MCWP-MW05 **Lab ID: 481735-001** **Collected: 03/16/23 12:30**
Matrix: Water

481735-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrate	**2.0**		mg/L	0.10	0.02	1	309955	03/17/23 10:32	03/17/23 12:16	RKV
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**1,400**		mg/L	20		2	309998	03/17/23	03/18/23	GKD

Sample ID: CCPE **Lab ID: 481735-002** **Collected: 03/16/23 09:50**
Matrix: Water

481735-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	1	309955	03/17/23 10:32	03/17/23 13:38	RKV
Nitrogen, Nitrate	**1.8**		mg/L	0.10	0.02	1	309955	03/17/23 10:32	03/17/23 13:38	RKV
Method: SM 4500-P-B5-E										
Phosphorus	**0.99**		mg/L	0.020	0.0054	1	310357	03/23/23	03/23/23	ATP
Method: SM 9223Bb										
Coliform, Total	**1.0**		MPN/100ml	1.0		1	309957	03/16/23 16:56	03/17/23 12:28	SMT
Fecal Coliform	<1.0		MPN/100ml	1.0		1	309957	03/16/23 16:56	03/17/23 12:28	SMT
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**1,400**		mg/L	20		2	309998	03/17/23	03/18/23	GKD

< Value is less than indicated concentration
ND Not Detected

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Batch QC

Type:	**Blank**	**Lab ID:**	**QC1052687**	**Batch:**	**309955**
Matrix:	**Water**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052687 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	03/17/23 10:32	03/17/23 11:35
Nitrogen, Nitrate	ND		mg/L	0.10	0.02	03/17/23 10:32	03/17/23 11:35

Type:	**Lab Control Sample**	**Lab ID:**	**QC1052688**	**Batch:**	**309955**
Matrix:	**Water**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052688 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Nitrite	4.264	4.567	mg/L	93%		90-110
Nitrogen, Nitrate	4.355	4.518	mg/L	96%		90-110

Type:	**Matrix Spike**	**Lab ID:**	**QC1052689**	**Batch:**	**309955**
Matrix (Source ID):	**Water (481735-001)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052689 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Nitrite	1.690	ND	1.827	mg/L	92%		80-120	1
Nitrogen, Nitrate	3.801	2.015	1.807	mg/L	99%		80-120	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1052690**	**Batch:**	**309955**
Matrix (Source ID):	**Water (481735-001)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052690 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Nitrite	1.704	ND	1.827	mg/L	93%		80-120	1	20	1
Nitrogen, Nitrate	3.813	2.015	1.807	mg/L	99%		80-120	0	20	1

Type:	**Matrix Spike**	**Lab ID:**	**QC1052856**	**Batch:**	**309955**
Matrix (Source ID):	**Water (481640-005)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1052856 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Nitrite	1.839	0.1432	1.827	mg/L	93%		80-120	1
Nitrogen, Nitrate	2.253	0.4824	1.807	mg/L	98%		80-120	1

ENTHALPY ANALYTICAL

Batch QC

Type:	Matrix Spike Duplicate	**Lab ID:**	QC1052857	**Batch:**	309955
Matrix (Source ID):	Water (481640-005)	**Method:**	EPA 300.0	**Prep Method:**	METHOD

QC1052857 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Nitrite	1.870	0.1432	1.827	mg/L	95%		80-120	2	20	1
Nitrogen, Nitrate	2.273	0.4824	1.807	mg/L	99%		80-120	1	20	1

Type:	Blank	**Lab ID:**	QC1053901	**Batch:**	310357
Matrix:	Water	**Method:**	SM 4500-P-B5-E		

QC1053901 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Phosphorus	ND		mg/L	0.020	0.0054	03/23/23	03/23/23

Type:	Lab Control Sample	**Lab ID:**	QC1053902	**Batch:**	310357
Matrix:	Water	**Method:**	SM 4500-P-B5-E		

QC1053902 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Phosphorus	0.3800	0.4000	mg/L	95%		80-120

Type:	Matrix Spike	**Lab ID:**	QC1053903	**Batch:**	310357
Matrix (Source ID):	Water (481671-001)	**Method:**	SM 4500-P-B5-E		

QC1053903 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Phosphorus	1.915	0.7930	1.000	mg/L	112%		75-125	2.5

Type:	Matrix Spike Duplicate	**Lab ID:**	QC1053904	**Batch:**	310357
Matrix (Source ID):	Water (481671-001)	**Method:**	SM 4500-P-B5-E		

QC1053904 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Phosphorus	1.910	0.7930	1.000	mg/L	112%		75-125	0	20	2.5

Type:	Blank	**Lab ID:**	QC1052819	**Batch:**	309998
Matrix:	Sea Water	**Method:**	SM2540C	**Prep Method:**	METHOD

QC1052819 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Dissolved Solids	ND		mg/L	10		03/17/23	03/18/23

ENTHALPY ANALYTICAL

Batch QC

Type:	**Lab Control Sample**	**Lab ID:**	**QC1052820**	**Batch:**	**309998**
Matrix:	**Sea Water**	**Method:**	**SM2540C**	**Prep Method:**	**METHOD**

QC1052820 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Dissolved Solids	1,000	1000	mg/L	100%		90-110

Type:	**Sample Duplicate**	**Lab ID:**	**QC1052821**	**Batch:**	**309998**
Matrix (Source ID):	**Water (481715-001)**	**Method:**	**SM2540C**	**Prep Method:**	**METHOD**

QC1052821 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Dissolved Solids	64,880	63460	mg/L		2	5	20

ND Not Detected

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL LABORATORY ACCREDITATION

Is hereby granted to

Pat-Chem Laboratories

1824 First Street

San Fernando, CA 91340

Scope of the certificate is limited to the
"Fields of Accreditation"
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1531**

Effective Date: **6/1/2023**

Expiration Date: **5/31/2025**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Program Manager
Environmental Laboratory Accreditation Program

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL LABORATORY ACCREDITATION

Is hereby granted to

Weck Laboratories, Inc.

14859 East Clark Avenue

City of Industry, CA 91745

Scope of the certificate is limited to the
"Fields of Accreditation"
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1132**

Effective Date: **4/1/2022**

Expiration Date: **3/31/2024**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Program Manager
Environmental Laboratory Accreditation Program

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL LABORATORY ACCREDITATION

Is hereby granted to

Fruit Growers Laboratory, Inc.

Santa Paula

853 Corporation Street

Santa Paula, CA 93060

Scope of the certificate is limited to the
"Fields of Accreditation"
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1573**

Effective Date: **8/1/2021**

Expiration Date: **7/31/2023**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL LABORATORY ACCREDITATION

Is hereby granted to

LA Testing

Huntington Beach, CA

5431 Industrial Drive

Huntington Beach, CA 92649 USA

Scope of the certificate is limited to the
"Fields of Accreditation"
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **1406**

Effective Date: **2/1/2022**

Expiration Date: **1/31/2024**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Chief
Environmental Laboratory Accreditation Program

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

CALIFORNIA STATE

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM

CERTIFICATE OF ENVIRONMENTAL LABORATORY ACCREDITATION

Is hereby granted to

Ceres Analytical Laboratory, Inc.

4919 Windplay Drive, Suite 1

El Dorado Hills, CA 95762

Scope of the certificate is limited to the
"Fields of Accreditation"
which accompany this Certificate.

Continued accredited status depends on compliance with applicable laws and regulations, proficiency testing studies, and payment of applicable fees.

This Certificate is granted in accordance with provisions of
Section 100825, et seq. of the Health and Safety Code.

Certificate No.: **3046**

Effective Date: **5/1/2021**

Expiration Date: **4/30/2023**

Sacramento, California
subject to forfeiture or revocation

Christine Sotelo, Program Manager
Environmental Laboratory Accreditation Program