INTEGRATED
PERFORMANCE
CONSULTANTS

January 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
2022 4th 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.

GROUNDWATER AND SURFACE WATER MONITORING

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

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 20th day of January 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																
10/01/2022	Sat	61.0			45.8	0.0	3.5	42.3	0.0	0.01	0.02	0.00	68.8	116.5	7.5	1.79	1.79	1.79	0.040																			
10/02/2022	Sun	56.1			57.5	0.0	13.2	44.3	0.0	0.01	0.02	0.00	68.9	114.5	7.3	1.79	1.79	1.79	0.080																			
10/03/2022	Mon	54.1			51.3	0.0	12.3	39.0	0.0	0.01	0.02	0.00	68.5	114.6	8.0	1.79	1.79	1.79	0.110																			
10/04/2022	Tue	57.1	277	371	58.3	0.0	13.4	44.9	0.0	0.01	0.02	0.00	68.3	112.9	7.5	1.79	1.79	1.79	0.180	3.0	99.2	0.9	99.7	0.8	0.8	0.05	0.09	2.08	1.99	2.90							
10/05/2022	Wed	61.7			50.6	0.0	11.6	38.9	0.0	0.01	0.02	0.00	68.6	109.5	7.2	1.79	1.79	1.79	0.170																			
10/06/2022	Thu	54.1			61.7	0.0	13.1	48.6	0.0	0.01	0.02	0.00	68.5	108.7	7.6	1.79	1.79	1.79	0.150																			
10/07/2022	Fri	54.7			46.1	0.0	22.2	23.9	0.0	0.01	0.02	0.00	68.0	107.3	7.8	1.79	1.79	1.79	0.070																			
10/08/2022	Sat	58.3			52.8	0.0	0.4	52.4	0.0	0.01	0.02	0.00	67.7	105.4	7.6	1.79	1.79	1.79	0.080																			
10/09/2022	Sun	56.7			64.2	0.0	13.0	51.2	0.0	0.01	0.02	0.00	67.8	106.3	7.1	1.79	1.79	1.79	0.080																			
10/10/2022	Mon	54.3			50.5	0.0	11.5	39.0	0.0	0.01	0.12	0.00	67.8	106.9	7.3	1.79	1.79	1.79	0.080																			
10/11/2022	Tue	51.4	307	263	61.5	0.0	12.9	48.7	0.0	0.01	0.05	0.00	68.3	111.7	7.7	1.79	1.79	1.79	0.110	2.0	99.2	0.9	99.7	0.6	0.3	0.25	0.15	1.85	1.70	2.43							
10/12/2022	Wed	55.7			40.9	0.0	0.4	40.5	0.0	0.01	0.02	0.00	67.8	112.9	7.6	1.79	1.79	1.79	0.050																			
10/13/2022	Thu	52.8			59.8	0.0	14.1	45.7	0.0	0.01	0.02	0.00	67.6	112.8	7.3	1.79	1.79	1.79	0.120																			
10/14/2022	Fri	57.3			48.2	0.0	23.1	25.1	0.0	0.10	0.15	0.00	67.1	111.4	7.5	1.79	1.79	1.79	0.180																			
10/15/2022	Sat	51.4			52.8	0.0	0.3	52.5	0.0	0.01	0.02	0.00	67.4	109.6	7.4	1.79	1.79	1.79	0.049																			
10/16/2022	Sun	53.0			51.0	0.0	13.1	37.9	0.0	0.01	0.02	0.00	66.8	109.8	7.4	1.79	1.79	1.79	0.049																			
10/17/2022	Mon	48.6			50.4	0.0	11.6	38.9	0.0	0.01	0.14	0.00	67.0	110.7	7.5	1.79	1.79	1.79	0.049																			
10/18/2022	Tue	48.4	268	362	52.2	0.0	13.6	38.6	0.0	0.01	0.12	0.00	66.5	111.8	7.4	1.79	1.79	1.79	0.120	2.0	99.4	0.9	99.7	0.1	0.0	0.05	0.10	0.43	0.33	0.53	4.9	0.1	912	270	214	0.28	0.19
10/19/2022	Wed	57.0			44.3	0.0	11.7	32.6	0.0	0.01	0.02	0.00	66.2	111.4	7.4	1.79	1.79	1.79	0.090																			
10/20/2022	Thu	51.3			55.1	0.0	14.7	40.4	0.0	0.01	0.02	0.00	66.2	113.0	7.5	1.79	1.79	1.79	0.040																			
10/21/2022	Fri	56.2			46.9	0.0	18.5	28.4	0.0	0.01	0.15	0.00	66.6	114.9	7.7	1.79	1.79	1.79	0.070																			
10/22/2022	Sat	55.0			50.0	0.0	0.3	49.7	0.0	0.01	0.02	0.00	67.6	112.7	7.7	1.79	1.79	1.79	0.049																			
10/23/2022	Sun	54.4			63.4	0.0	13.1	50.3	0.0	0.01	0.02	0.00	68.3	114.5	7.6	1.79	1.79	1.79	0.049																			
10/24/2022	Mon	47.7			47.1	0.0	12.0	35.1	0.0	0.01	0.02	0.00	68.5	118.4	7.3	1.79	1.79	1.79	0.049																			
10/25/2022	Tue	46.4	297	450	47.3	0.0	13.3	34.0	0.0	0.01	0.02	0.00	68.4	121.9	7.1	1.79	1.79	1.79	0.049	2.0	99.6	0.9	99.7	0.3	0.2	0.05	0.11	0.38	0.27	0.66							
10/26/2022	Wed	58.6			47.0	0.0	17.4	29.6	0.0	0.01	0.02	0.00	68.7	118.7	7.1	1.79	1.79	1.79	0.090																			
10/27/2022	Thu	48.9			52.2	0.0	13.8	38.5	0.0	0.01	0.22	0.01	69.4	118.2	7.5	1.79	1.79	1.79	0.050																			
10/28/2022	Fri	53.0			43.9	0.0	7.3	36.6	0.0	0.13	0.02	0.00	69.5	112.8	7.5	1.79	1.79	1.79	0.770																			
10/29/2022	Sat	56.5			59.5	0.0	0.4	59.1	0.0	0.01	0.02	0.00	69.8	119.0	7.5	1.79	1.79	1.79	0.049																			
10/30/2022	Sun	51.3			48.2	0.0	0.5	47.7	0.0	0.01	0.02	0.00	70.1	124.1	7.4	1.79	1.79	1.79	0.049																			
10/31/2022	Mon	46.7			49.5	0.0	1.1	48.4	0.0	0.01	0.06	0.00	70.1	127.5	7.9	1.79	1.79	1.79	0.050																			
TOTAL	1,670			1,610.0	0.0	327.3	1,282.6	0.0																													
MAX	61.7	307	450	64.2	0.0	23.1	59.1	0.0	0.13	0.22	0.01	70.1	127.5	8.0	1.79	1.79	1.79	0.770	3.0	99.6	0.9	99.7	0.8	0.8	0.25	0.15	2.08	1.99	2.90	4.9	0.1	912	270	214	0.28	0.19
AVG	53.9	287	362	51.9	0.0	10.6	41.4	0.0	0.02	0.05	0.00	68.1	113.6	7.5	1.79	1.79	1.79	0.104	2.3	99.4	0.9	99.7	0.4	0.3	0.10	0.11	1.19	1.07	1.63	4.9	0.1	912	270	214	0.28	0.19
MIN	46.4	268	263	40.9	0.0	0.3	23.9	0.0	0.01	0.02	0.00	66.2	105.4	7.1	1.79	1.79	1.79	0.040	2.0	99.2	0.9	99.7	0.1	0.0	0.05	0.09	0.38	0.27	0.53	4.9	0.1	912	270	214	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*	*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															
11/01/2022	Tue	47.4	259	232	47.7	0.0	1.7	46.0	0.0	0.01	0.20	0.00	69.1	130.9	7.4	1.79	1.79	1.79	0.060	1.9	99.2	0.9	99.7	1.5	1.5	0.05	0.09	1.03	0.94	2.54								
11/02/2022	Wed	53.5			49.8	0.0	1.8	48.0	0.0	0.01	0.02	0.00	69.1	121.5	7.1	1.79	1.79	1.79	0.050																			
11/03/2022	Thu	48.5			56.7	0.0	14.4	42.3	0.0	0.01	0.02	0.00	70.4	118.2	7.6	1.79	1.79	1.79	0.060											4.9	0.1	904	262	201	0.25	0.19	
11/04/2022	Fri	50.5			31.9	0.0	4.7	27.3	0.0	0.01	0.02	0.00	71.0	119.0	7.6	1.79	1.79	1.79	0.070																			
11/05/2022	Sat	55.5			51.5	0.0	0.5	51.0	0.0	0.01	0.02	0.00	71.0	113.7	7.6	1.79	1.79	1.79	0.049																			
11/06/2022	Sun	51.6			54.7	0.0	9.9	44.8	0.0	0.01	0.03	0.00	70.4	113.1	7.8	1.79	1.79	1.79	0.049																			
11/07/2022	Mon	44.5			42.7	0.0	6.9	35.8	0.0	0.01	0.03	0.00	69.5	111.5	8.3	1.79	1.79	1.79	0.049																			
11/08/2022	Tue	66.9	231	230	82.1	0.0	0.6	81.5	0.0	0.01	0.02	0.00	69.2	110.3	7.8	1.79	1.79	1.79	0.060	2.0	99.1	0.9	99.6	1.0	1.0	0.05	0.09	1.15	1.06	2.19								
11/09/2022	Wed	63.4			57.0	0.0	0.7	56.3	0.0	0.01	0.02	0.00	68.7	108.8	7.9	1.79	1.79	1.79	0.960																			
11/10/2022	Thu	58.3			64.5	0.0	14.7	49.7	0.0	0.01	0.02	0.00	68.5	108.8	7.9	1.79	1.79	1.79	0.060																			
11/11/2022	Fri	56.2			51.7	0.0	0.7	51.0	0.0	0.01	0.02	0.00	68.7	107.7	7.8	1.79	1.79	1.79	0.060																			
11/12/2022	Sat	55.2			53.8	0.0	0.6	53.2	0.0	0.01	0.02	0.00	69.1	108.4	7.4	1.79	1.79	1.79	0.040																			
11/13/2022	Sun	51.8			56.1	0.0	0.6	55.5	0.0	0.01	0.02	0.00	69.3	108.9	7.4	1.79	1.79	1.79	0.050																			
11/14/2022	Mon	47.6			48.5	0.0	0.6	47.8	0.0	0.01	0.02	0.00	69.1	114.5	7.2	1.79	1.79	1.79	0.060																			
11/15/2022	Tue	47.4	246	418	49.0	0.0	0.6	48.4	0.0	0.01	0.02	0.00	68.7	111.9	7.2	1.79	1.79	1.79	0.049	3.0	99.3	1.0	99.6	0.6	0.6	0.05	0.09	0.53	0.44	1.14								
11/16/2022	Wed	45.6			38.2	0.0	0.6	37.6	0.0	0.01	0.02	0.00	68.2	118.6	7.2	1.79	1.79	1.79	0.050																			
11/17/2022	Thu	48.3			42.2	0.0	2.7	39.6	0.0	0.01	0.11	0.00	68.2	117.9	7.7	1.79	1.79	1.79	0.049																			
11/18/2022	Fri	49.6			44.0	0.0	0.5	43.5	0.0	0.02	0.23	0.01	68.5	118.9	7.3	1.79	1.79	1.79	0.049																			
11/19/2022	Sat	50.1			51.4	0.0	0.4	50.9	0.0	0.01	0.02	0.00	68.8	116.2	7.7	1.79	1.79	1.79	0.049																			
11/20/2022	Sun	48.1			53.1	0.0	12.6	40.5	0.0	0.01	0.02	0.00	68.7	116.9	7.6	1.79	1.79	1.79	0.049																			
11/21/2022	Mon	56.6			46.2	0.0	23.7	22.5	0.0	0.01	0.02	0.00	69.0	113.8	7.5	1.79	1.79	1.79	0.660																			
11/22/2022	Tue	48.1	302	360	56.2	0.0	12.7	43.5	0.0	0.01	0.02	0.00	69.5	116.7	7.6	1.79	1.79	1.79	0.049	1.9	99.5	0.9	99.7	2.8	2.5	0.24	0.09	1.00	0.91	3.77								
11/23/2022	Wed	53.2			47.3	0.0	20.7	26.6	0.0	0.01	0.02	0.00	69.6	114.3	7.3	1.79	1.79	1.79	0.060																			
11/24/2022	Thu	29.3			57.8	0.0	13.0	44.8	0.0	0.01	0.02	0.00	70.1	119.5	7.0	1.79	1.79	1.79	0.049																			
11/25/2022	Fri	47.8			15.7	0.0	15.5	0.1	0.0	0.01	0.02	0.00	70.2	133.2	7.0	1.79	1.79	1.79	0.049																			
11/26/2022	Sat	50.3			50.1	0.0	0.3	49.8	0.0	0.01	0.02	0.00	70.1	115.4	7.0	1.79	1.79	1.79	0.049																			
11/27/2022	Sun	44.2			55.8	0.0	14.5	41.3	0.0	0.01	0.02	0.00	69.8	118.5	7.1	1.79	1.79	1.79	0.049																			
11/28/2022	Mon	41.9			37.9	0.0	0.6	37.2	0.0	0.01	0.13	0.00	69.3	122.6	7.4	1.79	1.79	1.79	0.070																			
11/29/2022	Tue	44.2	127	401	39.3	0.0	0.5	38.8	0.0	0.04	0.18	0.00	68.6	124.9	7.8	1.79	1.79	1.79	0.049	1.9	99.5	0.9	99.3	1.4	1.4	0.05	0.09	0.90	0.81	2.31								
11/30/2022	Wed	53.0			46.3	0.0	1.3	45.0	0.0	0.01	0.02	0.00	68.8	115.7	7.4	1.79	1.79	1.79	0.049																			
TOTAL	1,508.6	1.96%		1,479.0	0.0	178.7	1,300.3	0.0																													
MAX	66.9	302	418	82.1	0.0	23.7	81.5	0.0	0.04	0.23	0.01	71.0	133.2	8.3	1.79	1.79	1.79	0.960	3.0	99.5	1.0	99.7	2.8	2.5	0.24	0.09	1.15	1.06	3.77	4.9	0.1	904	262	201	0.25	0.19	
AVG	50.3	233	328	49.3	0.0	6.0	43.3	0.0	0.01	0.05	0.00	69.3	116.3	7.5	1.79	1.79	1.79	0.104	2.1	99.3	0.9	99.6	1.5	1.4	0.09	0.09	0.92	0.83	2.39	4.9	0.1	904	262	201	0.25	0.19	
MIN	29.3	127	230	15.7	0.0	0.3	0.1	0.0	0.01	0.02	0.00	68.2	107.7	7.0	1.79	1.79	1.79	0.040	1.9	99.1	0.9	99.3	0.6	0.6	0.05	0.09	0.53	0.44	1.14	4.9	0.1	904	262	201	0.25	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	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														
12/01/2022	Thu	45.7			60.5	0.0	9.4	51.0	0.0	0.01	0.02	0.00	69.1	111.3	7.1	1.79	1.79	1.79	0.049																		
12/02/2022	Fri	49.4			50.3	0.0	0.4	49.9	0.0	0.01	0.02	0.00	67.7	111.7	7.5	1.79	1.79	1.79	0.049																		
12/03/2022	Sat	52.6			46.7	0.0	0.3	46.4	0.0	0.01	0.02	0.00	67.7	112.6	7.6	1.79	1.79	1.79	0.060																		
12/04/2022	Sun	41.6			47.3	0.0	0.3	46.9	0.0	0.01	0.02	0.00	68.6	115.2	7.9	1.79	1.79	1.79	0.049																		
12/05/2022	Mon	45.9			40.6	0.0	0.4	40.2	0.0	0.01	0.02	0.00	68.5	121.0	7.2	1.79	1.79	1.79	0.049																		
12/06/2022	Tue	47.7	196	439	51.0	0.0	9.3	41.6	0.0	0.01	0.02	0.00	67.2	111.4	7.2	1.79	1.79	1.79	0.049	3.0	99.3	0.9	99.5	3.2	3.2	0.05	0.09	0.90	0.81	4.11						
12/07/2022	Wed	49.4			52.9	0.0	0.5	52.4	0.0	0.01	0.02	0.00	67.3	110.5	7.8	1.79	1.79	1.79	0.049																		
12/08/2022	Thu	60.2			63.5	0.0	7.9	55.6	0.0	0.01	0.02	0.00	67.1	107.0	7.5	1.79	1.79	1.79	0.050																		
12/09/2022	Fri	51.3			56.4	0.0	5.5	50.8	0.0	0.01	0.02	0.00	67.1	107.4	7.6	1.79	1.79	1.79	0.060																		
12/10/2022	Sat	49.2			52.9	0.0	0.3	52.6	0.0	0.01	0.02	0.00	67.5	109.9	7.8	1.79	1.79	1.79	0.049																		
12/11/2022	Sun	61.8			66.4	0.0	3.8	62.6	0.0	0.01	0.02	0.00	68.9	115.0	7.9	1.79	1.79	1.79	0.060																		
12/12/2022	Mon	54.0			69.7	0.0	0.3	69.5	0.0	0.01	0.02	0.00	69.1	115.1	7.6	1.79	1.79	1.79	0.100																		
12/13/2022	Tue	50.4	214	310	52.1	0.0	0.4	51.7	0.0	0.01	0.02	0.00	68.5	114.9	7.8	1.79	1.79	1.79	0.049	1.9	99.4	1.0	99.5	1.0	1.0	0.05	0.09	0.70	0.61	1.72						
12/14/2022	Wed	50.1			49.2	0.0	3.2	46.0	0.0	0.01	0.02	0.00	68.1	113.6	7.5	1.79	1.79	1.79	0.049																		
12/15/2022	Thu	58.8			40.6	0.0	0.5	40.1	2.5	0.01	0.02	0.00	69.0	117.1	7.6	1.79	1.79	1.79	0.050																		
12/16/2022	Fri	49.4			48.1	0.0	5.1	43.0	4.5	0.01	0.02	0.00	69.9	116.7	7.6	1.79	1.79	1.79	0.090																		
12/17/2022	Sat	55.0			51.3	0.0	3.6	47.7	0.0	0.01	0.02	0.00	69.9	120.5	6.6	1.79	1.79	1.79	0.049																		
12/18/2022	Sun	51.5			53.5	0.0	31.0	22.4	0.0	0.01	0.02	0.00	70.1	118.3	7.9	1.79	1.79	1.79	0.049																		
12/19/2022	Mon	50.1			48.8	0.0	24.8	24.0	0.0	0.10	0.02	0.00	69.6	115.9	7.6	1.79	1.79	1.79	0.070																		
12/20/2022	Tue	51.5	NS	NS	46.6	0.0	11.4	35.2	0.0	0.01	0.02	0.00	69.2	111.2	7.7	1.79	1.79	1.79	0.050	1.9	NS	0.9	NS	1.5	1.5	0.05	0.34	0.83	0.49	2.34						
12/21/2022	Wed	60.9			56.5	0.0	0.4	56.1	0.0	0.01	0.02	0.00	69.4	113.0	7.7	1.79	1.79	1.79	0.070																		
12/22/2022	Thu	53.5			57.1	0.0	21.2	35.9	0.0	0.01	0.02	0.00	69.0	113.5	7.5	1.79	1.79	1.79	0.080																		
12/23/2022	Fri	53.7			51.9	0.0	15.4	36.5	0.0	0.01	0.02	0.00	68.5	118.6	7.6	1.79	1.79	1.79	0.049																		
12/24/2022	Sat	50.8			51.8	0.0	19.9	31.9	0.0	0.01	0.02	0.00	68.9	118.6	7.8	1.79	1.79	1.79	0.080																		
12/25/2022	Sun	27.6			43.0	0.0	20.3	22.7	0.0	0.01	0.02	0.00	68.8	122.7	7.8	1.79	1.79	1.79	0.070																		
12/26/2022	Mon	54.6			25.1	0.0	19.9	5.2	0.0	0.01	0.02	0.00	68.7	122.7	7.7	1.79	1.79	1.79	0.110																		
12/27/2022	Tue	72.0			67.3	0.0	4.3	63.0	0.0	0.02	0.17	0.00	69.2	107.8	7.9	1.79	1.79	1.79	0.200			1.0	99.6	0.8	0.7	0.05	0.09	0.23	0.14	1.02						
12/28/2022	Wed	81.7			85.0	0.0	0.3	84.7	0.0	0.01	0.02	0.00	70.9	113.8	7.7	1.79	1.79	1.79	0.090																		
12/29/2022	Thu	59.5	235	270	65.3	0.0	0.3	65.0	0.0	0.01	0.02	0.00	72.0	123.4	7.5	1.79	1.79	1.79	0.070	1.9	99.3															
12/30/2022	Fri	52.6			48.5	0.0	0.4	48.1	0.0	0.01	0.02	0.00	71.5	133.3	7.2	1.79	1.79	1.79	0.180																		
12/31/2022	Sat	60.1			53.2	0.0	0.3	53.0	0.0	0.01	0.02	0.00	70.7	132.6	7.7	1.79	1.79	1.79	0.080																		
TOTAL		1,652.5			1,653.1	0.0	221.2	1,431.9	7.0																												
MAX		81.7	235	439	85.0	0.0	31.0	84.7	4.5	0.10	0.17	0.00	72.0	133.3	7.9	1.79	1.79	1.79	0.200	3.0	99.4	1.0	99.6	3.2	3.2	0.05	0.34	0.90	0.81	4.11	4.9	0.1	700	159	170	0.52	0.19
AVG		53.3	215	340	53.3	0.0	7.1	46.2	0.2	0.01	0.02	0.00	69.0	116.0	7.6	1.79	1.79	1.79	0.071	2.2	99.3	1.0	99.5	1.6	1.6	0.05	0.15	0.67	0.51	2.30	4.9	0.1	700	159	170	0.52	0.19
MIN		27.6	196	270	25.1	0.0	0.3	5.2	0.0	0.01	0.02	0.00	67.1	107.0	6.6	1.79	1.79	1.79	0.049	1.9	99.3	0.9	99.5	0.8	0.7	0.05	0.09	0.23	0.14	1.02	4.9	0.1	700	159	170	0.52	0.19

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

ATTACHMENT B: QUARTERLY EFF

		>> DATE >>	1/12	4/13	7/26	11/3			
	MCL	Units	Q1	Q2	Q3	Q4	MAX	AVG	MIN
A1 - Inorganic Chemicals									
Aluminum	1	mg/L	0.036	0.050	0.048	0.053	0.053	0.046750	0.036
Antimony	0.006	mg/L	0.0009	0.0012	0.0014	0.0016	0.0016	0.001275	0.0009
Arsenic	0.01	mg/L	0.0006	0.0008	0.0015	0.0008	0.0015	0.000925	0.0006
Asbestos	7	MFL	0	0	0	0	0	0	0
Barium	1	mg/L	0.038	0.068	0.039	0.059	0.068	0.051000	0.038
Beryllium	0.004	mg/L	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019
Cadmium	0.005	mg/L	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019
Chromium	0.05	mg/L	0.0021	0.0027	0.0034	0.0041	0.0041	0.003075	0.0021
Cyanide	0.15	mg/L	0.006	0.0039	0.003	0.009	0.009	0.005475	0.003
Mercury	0.002	mg/L	0.00019	0.00019	0.00049	0.00049	0.00049	0.00034	0.00019
Nickel	0.1	mg/L	0.0049	0.0044	0.0051	0.0049	0.0051	0.004825	0.0044
Selenium	0.05	mg/L	0.0019	0.0019	0.002	0.0019	0.002	0.001925	0.0019
Thallium	0.002	mg/L	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009
Perchlorate	0.006	mg/L	0	0	0	0	0	0	0
Fluoride	2	mg/L	0.6	0.7	1.35	1.42	1.42	1.017500	0.6
A2 - Radioactivity									
Radium-226 + Radium-228	5	pCi/L	1.053	1.053	1.053	1.356	1.356	1.128750	1.053
Gross Alpha Particle Activity[1]	15	pCi/L	2.41	2.08	2.71	3.23	3.23	2.6075	2.08
Tritium	20,000	pCi/L	434	434	434	434	434	434	434
Strontium-90	8	pCi/L	0	0.519	0.275	0.505	0.519	0.324750	0
Gross Beta Particle Activity	50	pCi/L	5.7	2.03	1.610	2.34	5.7	2.920000	1.61
Uranium	20	pCi/L	1.4	1.5	1.40	1.9	1.9	1.550000	1.4
A3 - Volatile Organic Chemicals									
Benzene	0.001	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Carbon Tetrachloride (CTC)	0.0005	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
1,2-Dichlorobenzene	0.6	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
1.4-Dichlorobenzene	0.005	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
1, 1-Dichloroethane	0.005	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
1,2-Dichloroethane (1,2-DCA)	0.0005	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
1, 1-Dichloroethene (1, 1-DCE)	0.006	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Cis-1,2-Dichloroethylene	0.006	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Trans-1,2-Dichloroethylene	0.01	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Dichloromethane	0.005	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
1,2-Dichloropropane	0.005	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
1,3-Dichloropropene	0.0005	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Ethylbenzene	0.3	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Methyl-tert-butyl-ether (MTBE)	0.013	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049

		>> DATE >>	1/12	4/13	7/26	11/3			
	MCL	Units	Q1	Q2	Q3	Q4	MAX	AVG	MIN
A3 - Non-Volatile Synthetic Organics									
Alachlor	0.002	mg/L	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019
Atrazine	0.001	mg/L	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019
Bentazon	0.018	mg/L	0.0009	0.0009	0.0011	0.0009	0.0011	0.00095	0.0009
Benzo(a)pyrene	0.0002	mg/L	0.000049	0.000049	0.000049	0.0000	0.000049	0.000049	0.000049
Carbofuran	0.018	mg/L	0	0	0	0	0	0	0
Chlordane	0.0001	mg/L	0.000089	0.00009	0.00009	0.00009	0.00009	0.000090	0.000089
2,4-D	0.07	mg/L	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009
Dalapon	0.2	mg/L	0.0049	0.0049	0.0049	0.0049	0.0049	0.0049	0.0049
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	mg/L	0.000009	0.000009	0.00003	0.000009	0.00003	0.00001425	0.000009
Di(2-ethylhexyl)adipate	0.4	mg/L	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019
Di(2-ethylhexyl)phthalate	0.004	mg/L	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019
Dinoseb	0.007	mg/L	0.0009	0.0028	0.0019	0.0009	0.0028	0.00163	0.0009
Diquat	0.02	mg/L	0	0	0	0	0	0	0
Endothall	0.1	mg/L	0	0	0	0	0	0	0
Endrin	0.002	mg/L	0.000009	0.000009	0.00002	0.000009	0.00002	0.000012	0.000009
Ethylene Dibromide (EDB)	0.00005	mg/L	0.000019	0.000019	0.000029	0.000019	0.000029	0.000022	0.000019
Glyphosate	0.7	mg/L	0	0	0	0	0	0	0
Heptachlor	0.00001	mg/L	0.000009	0.000009	0.000009	0.000009	0.000009	0.0000090	0.000009
Heptachlor Epoxide	0.00001	mg/L	0.000009	0.000009	0.000009	0.000009	0.000009	0.0000090	0.000009
Hexachlorobenzene	0.001	mg/L	0.000009	0.000009	0.000009	0.000009	0.000009	0.0000090	0.000009
Hexachlorocyclopentadiene	0.05	mg/L	0.0001	0.000009	0.00004	0.000009	0.0001	0.0000395	0.000009
lindane	0.0002	mg/L	0.000009	0.000009	0.000009	0.000009	0.000009	0.0000090	0.000009
Methoxychlor	0.03	mg/L	0.000049	0.000049	0.00008	0.000049	0.00008	0.0000568	0.000049
Molinate	0.02	mg/L	0.00019	0.00019	0.00019	0.0002	0.00019	0.0001900	0.00019
Oxamyl	0.05	mg/L	0	0	0	0	0	0	0
Pentachlorophenol	0.001	mg/L	0.000089	0.00009	0.00009	0.00009	0.00009	0.0000898	0.000089
Picloram	0.5	mg/L	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009	0.0009
Polychlorinated Biphenyls	0.0005	mg/L	0.000089	0.00009	0.00009	0.00009	0.00009	0.0000898	0.000089
Simazine	0.004	mg/L	0.0026	0.00019	0.00019	0.00019	0.0026	0.0007925	0.00019
Thiobencarb	0.07	mg/L	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019
Toxaphene	0.003	mg/L	0.000089	0.00009	0.00009	0.00009	0.00009	0.0000898	0.000089
2,3,7,8-TCDD (Dioxin)	3x10-a	mg/L	0.00848	0.00842	0.00823	0.00772	0.00848	0.0082125	0.00772
2,4,5-TP (Silvex)	0.05	mg/L	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019
A4 - Disinfection Byproducts									
Total Trihalomethanes (TTHM)	0.08	ppb	10.5	10.2	14.4	21.0	21	14.025	10.2
Bromodichloromethane		ug/l	0.49	0.49	0.49	4.1	4.1	1.39250	0.49
Bromoform		ug/l	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Chloroform		ug/l	10.5	10.2	10.2	16.0	16	11.725	10.2

ATTACHMENT B: QUARTERLY EFF

	>> DATE >>		1/12	4/13	7/26	11/3			
	MCL	Units	Q1	Q2	Q3	Q4	MAX	AVG	MIN
Monochlorobenzene	0.07	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Styrene	0.1	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
1,1,2,2-Tetrachloroethane	0.001	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Tetrachloroethylene (PCE)	0.005	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Toluene	0.15	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
1,2,4-Trichlorobenzene	0.005	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
1, 1, 1-Trichloroethane	0.2	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
1, 1,2-Trichloroethane	0.005	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Trichloroethylene (TCE)	0.005	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Trichlorofluoromethane	0.15	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
1, 1,2-Trichloro-1,2,2-Trifluoroethane	1.2	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Vinyl Chloride	0.0005	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Xylene (m,p)	1.75	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049

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

	>> DATE >>		1/12	4/13	7/26	11/3			
	MCL	Units	Q1	Q2	Q3	Q4	MAX	AVG	MIN
Dibromochloromethane		ug/l	0.49	0.49	1.8	0.53	1.8	0.83	0.49
Haloacetic acid (five) (HAA5)	0.06	ppb	14.4	17.6	19.6	14.0	19.6	16.40	14
Monochloroacetic acid		ppb	1.94	1.73	2.86	1.99	2.86	2.13	1.73
Dichloroacetic acid		ppb	8.14	10.2	9.5	9.3	10.2	9.30	8.14
Trichloroacetic acid		ppb	3.42	4.62	4.0	5.1	5.1	4.30	3.42
Monobromoacetic acid		ppb	0.9	1.00	1.93	0.9	1.93	1.18	0.9
Dibromoacetic acid		ppb	0.9	0.9	1.21	0.9	1.21	0.98	0.9
Bromate 121	0.01	ppb	4.9	664	27.3	9.99	664	176.55	4.9
Chlorite131	1	ppb	19	123	37.5	26.9	123	51.60	19
A5 - Secondary MCLs									
Aluminum	0.2	mg/L	0.036	0.05	0.048	0.053	0.053	0.046750	0.036
Color	150	CU	18.8	23.8	18.9	25.9	25.9	21.85	18.8
Copper	1	mg/L	0.0009	0.0011	0.0009	0.001	0.0011	0.000975	0.0009
Corrosivity (Langelier Index)	Non		-2.8	-0.21	-0.48	-0.2	-0.2	-0.9225	-2.8
Foam Agents (MBAS)	0.5	mg/L	0.45	0.19	0.63	0.57	0.63	0.460000	0.19
Iron	0.3	mg/L	0.02	0.09	0.04	0.04	0.09	0.0475	0.02
Manganese	0.05	mg/L	0.023	0.066	0.031	0.0075	0.066	0.0318750	0.0075
Methyl-tert-butyl-ether (MTBE)	0.005	mg/L	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
Odor - Threshold	3	T.O.N.	1	1	0.9	0.9	1	0.950000	0.9
Silver	0.1	mg/L	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019
Thiobencarb	0.001	mg/L	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	0.00019
Zinc	5	mg/L	0.047	0.018	0.018	0.023	0.047	0.026500	0.018

2022_mcc_data

Date	Day	Gallons	Location	Description	Reason for Haul	Destination	Hauler
11/02/2022	Wed	10,000	Solids Storage Tank	Waste Activated Sludge	Biological Process Control	JWPCP	Ely Jr's Pumping & Septic Systems
11/16/2022	Wed	5,000	Solids Storage Tank	Waste Activated Sludge	Biological Process Control	JWPCP	Ely Jr's Pumping & Septic Systems
12/02/2022	Fri	7,500	Solids Storage Tank	Waste Activated Sludge	Biological Process Control	JWPCP	Ely Jr's Pumping & Septic Systems
12/02/2022	Fri	5,000	Solids Storage Tank	Waste Activated Sludge	Biological Process Control	JWPCP	Pacific Sanitation Inc.
12/27/2022	Tue	10,000	Solids Storage Tank	Waste Activated Sludge	Biological Process Control	JWPCP	Pacific Sanitation Inc.
12/28/2022	Wed	10,000	Solids Storage Tank	Waste Activated Sludge	Biological Process Control	JWPCP	Ely Jr's Pumping & Septic Systems
Total		**47,500**					

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: 13-Oct-22 12:46
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22I0714-01) Collected: 30-Sep-22 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AI23017	1.8	30-Sep-22	02-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AI23017	1.8	30-Sep-22	02-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ20436	0.1	30-Sep-22	30-Sep-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AI23025	0.05	30-Sep-22	30-Sep-22	**0.08 mg/l**	
EFF (Sample I.D.# : 22J0006-01) Collected: 01-Oct-22 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ20124	1.8	01-Oct-22	03-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ20124	1.8	01-Oct-22	03-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ20436	0.1	01-Oct-22	01-Oct-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ20429	0.05	04-Oct-22	04-Oct-22	**0.04 mg/l**	
EFF (Sample I.D.# : 22J0011-01) Collected: 02-Oct-22 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ20227	1.8	02-Oct-22	04-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ20227	1.8	02-Oct-22	04-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ20436	0.1	02-Oct-22	02-Oct-22	**7.3 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ20429	0.05	04-Oct-22	04-Oct-22	**0.08 mg/l**	
EFF (Sample I.D.# : 22J0027-01) Collected: 03-Oct-22 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ20333	1.8	03-Oct-22	05-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ20333	1.8	03-Oct-22	05-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ20436	0.1	03-Oct-22	03-Oct-22	**8.0 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ20429	0.05	04-Oct-22	04-Oct-22	**0.11 mg/l**	

Respectfully Submitted,

Stephen Sakai 10/13/2022
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: 13-Oct-22 12:46
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22J0067-01) Collected: 04-Oct-22 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ20434	1.8	04-Oct-22	07-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ20434	1.8	04-Oct-22	07-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21128	0.1	04-Oct-22	04-Oct-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ20533	0.05	05-Oct-22	05-Oct-22	**0.18 mg/l**	
EFF (Sample I.D.# : 22J0098-01) Collected: 05-Oct-22 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ20540	1.8	05-Oct-22	13-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ20540	1.8	05-Oct-22	13-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21128	0.1	05-Oct-22	05-Oct-22	**7.2 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ20613	0.05	06-Oct-22	06-Oct-22	**0.17 mg/l**	
EFF (Sample I.D.# : 22J0149-01) Collected: 06-Oct-22 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ20619	1.8	06-Oct-22	08-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ20619	1.8	06-Oct-22	08-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21128	0.1	06-Oct-22	06-Oct-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ20621	0.05	06-Oct-22	06-Oct-22	**0.15 mg/l**	
EFF (Sample I.D.# : 22J0174-01) Collected: 07-Oct-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ20712	1.8	07-Oct-22	09-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ20712	1.8	07-Oct-22	09-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21128	0.1	07-Oct-22	07-Oct-22	**7.8 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ21045	0.05	10-Oct-22	10-Oct-22	**0.07 mg/l**	

Respectfully Submitted,

Stephen Sakai 10/13/2022
Lab Director

PAT-CHEM LABORATORIES
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1824 1st Street
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pat-chem.com

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

Attention: Ric Vardel
Report Date: 13-Oct-22 12:46
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22J0190-01) Collected: 08-Oct-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ20821	1.8	08-Oct-22	10-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ20821	1.8	08-Oct-22	10-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21128	0.1	08-Oct-22	08-Oct-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ21045	0.05	10-Oct-22	10-Oct-22	**0.08 mg/l**	
EFF (Sample I.D.# : 22J0198-01) Collected: 09-Oct-22 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ20919	1.8	09-Oct-22	11-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ20919	1.8	09-Oct-22	11-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21128	0.1	09-Oct-22	09-Oct-22	**7.1 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ21045	0.05	10-Oct-22	10-Oct-22	**0.08 mg/l**	
EFF (Sample I.D.# : 22J0212-01) Collected: 10-Oct-22 By Golan Kfir of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ21040	1.8	10-Oct-22	12-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ21040	1.8	10-Oct-22	12-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21128	0.1	10-Oct-22	10-Oct-22	**7.3 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ21045	0.05	10-Oct-22	10-Oct-22	**0.08 mg/l**	

Respectfully Submitted,

Stephen Sakai 10/13/2022
Lab Director

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

Attention: Ric Vardel
Report Date: 13-Oct-22 12:46
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 10/13/2022
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.#: 22I0714

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	9/30/22	11:45	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.58/26.2°C
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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SEP 30 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	9/30/22	11:50
Received by	Juan Devis (PCL)	9/30/22	13:14
Relinquished by	Juan Devis (PCL)	9/30/22	15:25
Received by			
Relinquished by			
Received in lab by	Alex Wallace (PCL)	SEP 30 2022	15:25

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.#: 2210006

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	10/01/22	11:50	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: Jesus Avalos	Jesus Avalos (IPC)	10/01/22	11:55
Received by: Richard Martinez	Richard Martinez (PCL)	10/01/22	1155
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by: Richard Martinez	Richard Martinez (PCL)	10/01/22	1430

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.#: 22J0011

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	10-2-22	935	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.3 / 17.1
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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OCT 02 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by:	E. Morris	10-2-22	945
Received by:	Cindy Murray	10-2-22	1125
Relinquished by:	cindy murray	10-2-22	1218
Received by:			
Relinquished by:			
Received in lab by:	Alex Walker Jr. (ALJ)	OCT 02 2022	12:18

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.#: 22J0027

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
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	10/3/22	1125	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	pH = 7.98
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	Temp = 22.2°C
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
OCT 03 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel (IPC)	10/3/22	1130
Received by	MARIO SANTIESTEBAN (PCL)	10/3/22	1341
Relinquished by	MARIO SANTIESTEBAN (PCL)	10/3/22	1530
Received by			
Relinquished by			
Received by/lab by	(PCL)	OCT 03 2022	1530

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

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 - $CuSO_4$

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.#: 22J0067

Customer: IPC - Integrated Performance Consultants, Inc.		Project: (MCC) Daily EFF	
Address: 9297 Research Drive		Sampled by: Ric Vardel / Golan Kfir	P.O. #:
Irvine CA 92618		Report Attention:	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	10/4/22	1145	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.49/31.7°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 04 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		E. Morales	10/4/22	1152
Received by		Juan Deniz (PCL)	10/4/22	12:21
Relinquished by		Juan Deniz (PCL)	10/4/22	14:00
Received by				
Relinquished by				
Received in lab by		Alex Walker, Jr. (PCL)	OCT 04 2022	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.

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.#: 22J0098

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	10-5-22	1013	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.2 | 16.2
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED OCT 05 2022 By

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	10-5-22	1030
Received by	Cindy Manning	10.5.22	1142
Relinquished by	Cindy Manning	10.5.22	1255
Received by			
Relinquished by			
Received in lab by	Alex Walkin (R.)	OCT 05 2022	1255

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.#: 22J0149

Customer:	IPC - Integrated Performance Consultants, Inc.	**Project :**	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	**Sampled by:**	Daniel Hoey
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	10/6/22	1110	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
OCT 06 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel (IPC)	10/6/22	1115
Received by	Jonathan V. (PCL)	10/6	12:10
Relinquished by	Jonathan V. (PCL)	10/6	13:10
Received by			
Relinquished by			
Received in lab by	Alex Wolkowski (PCL)	OCT 06 2022	1310

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.#: 22J0174

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	10/7/22	11:30	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.76 / 25.1
	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 07 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	10/7/22	11:40
Received by:	Cindy Mwaniki	10-7-22	12:32
Relinquished by:	Cindy Mwaniki	10-7-22	1345
Received by:			
Relinquished by:			
Received in lab by:	Alex Walkin Jr. (Pat)	OCT 07 2022	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
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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CHAIN OF CUSTODY RECORD

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

Environmental Sample

Sample I.D.#: 2250190

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	10/8/22	11:50	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: Jesus Avalos	Jesus Avalos (RC)	10/8/22	11:55
Received by:	Richard Martinez (RC)	10/8/22	1155
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard Martinez (RC)	10/8/22	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	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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CHAIN OF CUSTODY RECORD

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

Environmental Sample

Sample I.D.#: 220198

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :** (MCC) Daily EFF	
Address: 9297 Research Drive, Irvine, CA 92618	**Sampled by:** Ric Vardel / Golan Kfir	**P.O. #:**	
	Report Attention:	**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	10-9-22	945	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.1 / 5.6
			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	10-9-22	955
Received by	Cindy Mary	10-9-22	1130
Relinquished by	Chemmaster	10-9-22	12:25
Received by			
Relinquished by			
Received in lab by	MARIO SANTIESTEBAN (PCL)	10/9/22	1225

Sample Received Checklist

Temperature upon receipt: 2 °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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CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
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Environmental Sample

Sample I.D.#: 2210212

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive, Irvine, CA 92618	Sampled by: Golan Kfir	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	10/10/22	11:07	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.39 / 28.3
	"	~	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 10 2022
by

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by GK	Golan IPC	10/10/22	11:08
Received by	Cindy Martinez	10/10/22	11:8
Relinquished by	Cindy Martinez	10/10/22	12:05
Received by			
Relinquished by			
Received in lab by	Alex Wallwa (Acq) OCT 10 2022		1205

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	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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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-Oct-22 14:15
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22J0242-01) Collected: 11-Oct-22 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ21126	1.8	11-Oct-22	13-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ21126	1.8	11-Oct-22	13-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21735	0.1	11-Oct-22	11-Oct-22	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ21129	0.05	11-Oct-22	11-Oct-22	**0.11 mg/l**	
EFF (Sample I.D.# : 22J0272-01) Collected: 12-Oct-22 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ21236	1.8	12-Oct-22	14-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ21236	1.8	12-Oct-22	14-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21735	0.1	12-Oct-22	12-Oct-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ21240	0.05	12-Oct-22	12-Oct-22	**0.05 mg/l**	
EFF (Sample I.D.# : 22J0298-01) Collected: 13-Oct-22 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ21308	1.8	13-Oct-22	15-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ21308	1.8	13-Oct-22	15-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21735	0.1	13-Oct-22	13-Oct-22	**7.3 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ21410	0.05	13-Oct-22	13-Oct-22	**0.12 mg/l**	
EFF (Sample I.D.# : 22J0328-01) Collected: 14-Oct-22 By CA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ21408	1.8	14-Oct-22	16-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ21408	1.8	14-Oct-22	16-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21735	0.1	14-Oct-22	14-Oct-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ21410	0.05	14-Oct-22	14-Oct-22	**0.18 mg/l**	

Respectfully Submitted,

Stephen Sakai 10/28/2022
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-Oct-22 14:15
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22J0341-01) Collected: 15-Oct-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ21531	1.8	15-Oct-22	19-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ21531	1.8	15-Oct-22	19-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21735	0.1	15-Oct-22	15-Oct-22	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ21737	0.05	17-Oct-22	17-Oct-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22J0351-01) Collected: 16-Oct-22 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ21622	1.8	16-Oct-22	19-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ21622	1.8	16-Oct-22	19-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21735	0.1	16-Oct-22	16-Oct-22	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ21737	0.05	17-Oct-22	17-Oct-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22J0368-01) Collected: 17-Oct-22 By Carlos A. of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ21730	1.8	17-Oct-22	19-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ21730	1.8	17-Oct-22	19-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ21735	0.1	17-Oct-22	17-Oct-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ21737	0.05	17-Oct-22	17-Oct-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22J0403-01) Collected: 18-Oct-22 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ21842	1.8	18-Oct-22	20-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ21842	1.8	18-Oct-22	20-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ22529	0.1	18-Oct-22	18-Oct-22	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ21941	0.05	19-Oct-22	19-Oct-22	**0.12 mg/l**	

Respectfully Submitted,

Stephen Sakai 10/28/2022
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-Oct-22 14:15
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22J0446-01) Collected: 19-Oct-22 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ21938	1.8	19-Oct-22	21-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ21938	1.8	19-Oct-22	21-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ22529	0.1	19-Oct-22	19-Oct-22	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ21941	0.05	19-Oct-22	19-Oct-22	**0.09 mg/l**	
EFF (Sample I.D.# : 22J0466-01) Collected: 20-Oct-22 By GK of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ22009	1.8	20-Oct-22	22-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ22009	1.8	20-Oct-22	22-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ22529	0.1	20-Oct-22	20-Oct-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ22011	0.05	20-Oct-22	20-Oct-22	**0.04 mg/l**	
EFF (Sample I.D.# : 22J0488-01) Collected: 21-Oct-22 By KV of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ22114	1.8	21-Oct-22	23-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ22114	1.8	21-Oct-22	23-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ22529	0.1	21-Oct-22	21-Oct-22	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ22118	0.05	21-Oct-22	21-Oct-22	**0.07 mg/l**	

Respectfully Submitted,

Stephen Sakai 10/28/2022
Lab Director

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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-Oct-22 14:15
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 10/28/2022
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.#: 22J0242

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	E. Morris
		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	10/11/22	1055	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.7 / 26.2 b
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 11 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: E. Morris	E. MORRIS	10/11/22	1201
Received by:	Cindy Martinez	10.11.22	12:10
Relinquished by:	Cindy Martinez	10.11.22	14:40
Received by:			
Relinquished by:			
Received in lab by: Alex Walworth Jr.	Alex Walworth	OCT 11 2022	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.

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.#: 22J0272

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	10-12-22	1115	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.6 / 13.4
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 12 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		E. MORRIS	10/12/22	1147
Received by		Cindy Martinez	10-12-22	13:00
Relinquished by		Cindy Martinez	10-12-22	1430
Received by				
Relinquished by				
Received in lab by		Alex Wilson	OCT 12 2022	1430

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.#: 22J0298

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Daniel Hwang
		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	10/13/22	1105	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.3/14.2 °C
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 13 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel Hwang	Daniel (IPC)	10/13/22	1110
Received by		Cindy Martinez	10/13/22	1326
Relinquished by		Cindy Martinez	10/13/22	1522
Received by				
Relinquished by				
Received in lab by	Alex Walker Jr.	Alex Walker	OCT 13 2022	1522

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.#: 22J0341

Customer:	IPC - Integrated Performance Consultants, Inc.	**Project :**	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	**Sampled by:**	Jesus Aviles
		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	10/15/22	11:20	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.4 / 27.8
〃	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 15 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Aviles	Jesus Aviles (IPC)	10/15/22	11:25
Received by:	Cindy Mapes	10-15-22	1125
Relinquished by:	Cindy Mapes	10/15/22	1225
Received by:			
Relinquished by:			
Received in lab by:	Alex Walden	OCT 15 2022	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
Al - $AlCl_3$
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.#: 22J0351

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by: emorris 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	10-16-22	10:16	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.4 / 24.2°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 16 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: emorris	E. Morris	10/16/22	1045
Received by:	Cindy Marine	10.16.22	1045
Relinquished by:	Cindy Marine	10/16/22	1141
Received by:			
Relinquished by:			
Received in lab by:	Alex Walton	OCT 16 2022	1141

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.#: 22J0368

(MCC) Daily EFF

Customer: IPC - Integrated Performance Consultants, Inc.		Project :	
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	10/17/22	1135	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.50/25.9°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 17 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	10/17/22	1140
Received by		Cindy Manning	10/17/22	12:01
Relinquished by		Cindy Manning	10/17/22	13:08
Received by				
Relinquished by				
Received in lab by		Alex Walker Jr	OCT 17 2022	1308

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.#: 22J0403

Customer: IPC - Integrated Performance Consultants, Inc.		Project: (MCC) Daily EFF	
Address: 9297 Research Drive	Sampled by: emerson		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	10-18-22	1035	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.4 / 19.3 °C
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 18 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: emerson	E. MORRIS	10-18-22	1140
Received by: [signature]	Cindy Matthews WPACT	10/18/22	1247
Relinquished by: [signature]	Cindy Matthews WPACT	10/18/22	1400
Received by:			
Relinquished by:			
Received in lab by: [signature]	Alex Walkington	OCT 18 2022	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
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
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 22J0446

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive, Irvine, CA 92618		Sampled by: 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
EFF	10-19-22	1010	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.4/20.3°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 19 2022
By Alex Walker Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. Morper	10-19-22	1034
Received by	Cindy Martinez	10-19-22	1155
Relinquished by	Cindy Martinez	10/19/22	1317
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr.	OCT 19 2022	1347

Sample Received Checklist

Temperature upon receipt: 4

# 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
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 22J0466

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
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	10/20/22	12:50	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.50/27.7
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 20 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: GK	Golan IPC	10/20/22	1250
Received by:	MARIO SAN TIESTEBAN (PCL)	10/20/22	1250
Relinquished by:	MARIO SAN TIESTEBAN (PCL)	10/20/22	1420
Received by:		OCT 20 2022	
Relinquished by:			
Received in lab by:	Alex Walker (PCL) OCT 20 2022		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 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.

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.#: 22JD488

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive, Irvine CA 92618	Sampled by: Kyle Vardel	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	10/21/22	1100	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.7 / 27.9 °C
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 21 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Kyle Vardel (IPC)	10/21/22	1105
Received by	Cindy Martinez	10.21.22	11:05
Relinquished by	Cindy Martinez	10.21.22	13:15
Received by			
Relinquished by			
Received in lab by	Alex Villalobos	OCT 21 2022	1315

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
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: 01-Nov-22 15:20
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22J0498-01) Collected: 22-Oct-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ22228	1.8	22-Oct-22	24-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ22228	1.8	22-Oct-22	24-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ22529	0.1	22-Oct-22	22-Oct-22	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ22424	0.05	24-Oct-22	24-Oct-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22J0505-01) Collected: 23-Oct-22 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ22325	1.8	23-Oct-22	25-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ22325	1.8	23-Oct-22	25-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ22529	0.1	23-Oct-22	23-Oct-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ22424	0.05	24-Oct-22	24-Oct-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22J0524-01) Collected: 24-Oct-22 By CA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ22420	1.8	24-Oct-22	26-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ22420	1.8	24-Oct-22	26-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ22529	0.1	24-Oct-22	24-Oct-22	**7.3 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ22645	0.05	25-Oct-22	25-Oct-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22J0546-01) Collected: 25-Oct-22 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ22531	1.8	25-Oct-22	27-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ22531	1.8	25-Oct-22	27-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ22818	0.1	25-Oct-22	25-Oct-22	**7.1 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ22645	0.05	25-Oct-22	25-Oct-22	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 11/1/2022
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: 01-Nov-22 15:20
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22J0570-01) Collected: 26-Oct-22 By C.A of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ22644	1.8	26-Oct-22	28-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ22644	1.8	26-Oct-22	28-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ22818	0.1	26-Oct-22	26-Oct-22	**7.2 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ22648	0.05	26-Oct-22	26-Oct-22	**0.09 mg/l**	
EFF (Sample I.D.# : 22J0604-01) Collected: 27-Oct-22 By JW							
Microbiological							
Fecal Coliforms	SM 9221E	AJ22708	1.8	27-Oct-22	29-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ22708	1.8	27-Oct-22	29-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AJ22818	0.1	27-Oct-22	27-Oct-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ22710	0.05	28-Oct-22	28-Oct-22	**0.05 mg/l**	
EFF (Sample I.D.# : 22J0624-01) Collected: 28-Oct-22 By KV of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ22816	1.8	28-Oct-22	30-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ22816	1.8	28-Oct-22	30-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK20117	0.1	28-Oct-22	28-Oct-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ22819	0.05	28-Oct-22	28-Oct-22	**0.77 mg/l**	
EFF (Sample I.D.# : 22J0638-01) Collected: 29-Oct-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ22923	1.8	29-Oct-22	31-Oct-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ22923	1.8	29-Oct-22	31-Oct-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK20117	0.1	29-Oct-22	29-Oct-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ23129	0.05	31-Oct-22	31-Oct-22	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 11/1/2022
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: 01-Nov-22 15:20
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 11/1/2022
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.#: 2250498

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	10/22/22	11:50	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: Jesus Avalos	Jesus Avalos (IPC)	10/22/22	11:55
Received by:	Richard Martinez (VA)	10/22/22	1200
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard Martinez (VA)	10/23/22	1400

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

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	

1824 1st Street
San Fernando, CA 91340

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

Sample I.D.#: 22J0505

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	
		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	10-23-22	1040	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.6/24.4-C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 23 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. Winters	10-23-22	1045
Received by	Cindy Mathews	10.23.22	1120
Relinquished by	Cindy Mathews	10.23.22	1220
Received by			
Relinquished by			
Received in lab by	Alex Walker OCT 23 2022		1220

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.#: 22J0524

Customer: IPC - Integrated Performance Consultants, Inc.

Project: **(MCC) Daily EFF**

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	10/24/22	1105	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.3 / 23.3
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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OCT 24 2022
BY

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	10/24/22	1110
Received by		Cindy Martinez	10.24.22	1128
Relinquished by		Cindy Martinez	10.24.22	1336
Received by				
Relinquished by				
Received in lab by		Alex Walkush	OCT 24 2022	1336

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
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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.#: 22J0546

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	
		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	10/25/22	1055	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.1/26.0 °C
		"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 25 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MARRIS	10/25/22	1147
Received by	Cindy MARRIS	10/25/22	1147
Relinquished by	Cindy MARRIS	10-25-22	4331
Received by			
Relinquished by			
Received in lab by	Alex Walkup	OCT 25 2022	1331

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.#: 22J0570

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	10/26/22	1120	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	T. 7.2 | 20.8 °C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 26 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	10/26/22	1130
Received by		Cindy MARTINEZ	10/26/22	1230
Relinquished by		Cindy MARTINEZ	10/26/22	1335
Received by				
Relinquished by				
Received in lab by		Alex Wellman	OCT 26 2022	1330

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
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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.#: 22J0604

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	10/27/22	10:55	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.53 / 12-0°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 30 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Jonathan Wu (IPC)	10/27/22	11:05
Received by		Juan Devis (PCL)	10/27/22	14:05
Relinquished by		Juan Devis (PCL)	10/27/22	16:54
Received by				
Relinquished by				
Received in lab by		Alex Warren Jr	OCT 30 2022	1654

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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1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

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

Environmental Sample

Sample I.D.#: 22J0624

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive, Irvine, CA 92618	Sampled by: Kyle Vardel / 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	10/28/22	1120	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.5 | 7.2
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 28 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Kyle Vardel (IPC)	10/28/22	1125
Received by	Cindy Marin	10.28.22	1125
Relinquished by	Cindy Marin	10.28.22	1300
Received by			
Relinquished by			
Received in lab by	Alex Valdez Jr. (PCL)	OCT 28 2022	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.

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.#: 225038

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	10/27/22	11:55	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: Jesus Avalos	Jesus Avalos (IPC)	10/27/22	1200
Received by:	Richard MacAdam (CC)	10/28/22	1200
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard MacAdam (CC)	10/28/22	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	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 Effecti

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-Nov-22 09:50
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22J0647-01) Collected: 30-Oct-22 By EM of PCL							
Microbiological							
Fecal Coliforms	SM 9221E	AJ23015	1.8	30-Oct-22	01-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ23015	1.8	30-Oct-22	01-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK20117	0.1	30-Oct-22	30-Oct-22	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ23129	0.05	31-Oct-22	31-Oct-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22J0658-01) Collected: 31-Oct-22 By Golan Kfir of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AJ23126	1.8	31-Oct-22	02-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AJ23126	1.8	31-Oct-22	02-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK20117	0.1	01-Nov-22	01-Nov-22	**7.9 pH Units**	
Residual Chlorine	SM 4500Cl-G	AJ23129	0.05	31-Oct-22	31-Oct-22	**0.05 mg/l**	
EFF (Sample I.D.# : 22K0032-01) Collected: 01-Nov-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK20121	1.8	01-Nov-22	03-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK20121	1.8	01-Nov-22	03-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK20734	0.1	01-Nov-22	01-Nov-22	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK20125	0.05	01-Nov-22	01-Nov-22	**0.06 mg/l**	
EFF (Sample I.D.# : 22K0072-01) Collected: 02-Nov-22 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK20222	1.8	02-Nov-22	04-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK20222	1.8	02-Nov-22	04-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK20734	0.1	02-Nov-22	02-Nov-22	**7.1 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK20223	0.05	02-Nov-22	02-Nov-22	**0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 11/14/2022
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: 14-Nov-22 09:50
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22K0106-01) Collected: 03-Nov-22 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK20308	1.8	03-Nov-22	05-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK20308	1.8	03-Nov-22	05-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK20734	0.1	03-Nov-22	03-Nov-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK20312	0.05	03-Nov-22	03-Nov-22	**0.06 mg/l**	
EFF (Sample I.D.# : 22K0138-01) Collected: 04-Nov-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK20417	1.8	04-Nov-22	06-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK20417	1.8	04-Nov-22	06-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK20734	0.1	04-Nov-22	04-Nov-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK20422	0.05	04-Nov-22	04-Nov-22	**0.07 mg/l**	
EFF (Sample I.D.# : 22K0168-01) Collected: 05-Nov-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK20515	1.8	05-Nov-22	07-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK20515	1.8	05-Nov-22	07-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK20734	0.1	05-Nov-22	05-Nov-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK20738	0.05	07-Nov-22	07-Nov-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22K0175-01) Collected: 06-Nov-22 By JW							
Microbiological							
Fecal Coliforms	SM 9221E	AK20620	1.8	06-Nov-22	08-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK20620	1.8	06-Nov-22	08-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK20734	0.1	06-Nov-22	06-Nov-22	**7.8 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK20738	0.05	07-Nov-22	07-Nov-22	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 11/14/2022
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: 14-Nov-22 09:50
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 11/14/2022
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.#: 22J0647

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by:	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	10/30/22	950	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7-4 | 17.8°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 30 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. Morris	10/30/22	955
Received by	Cindy Mayer	10.30.22	1145
Relinquished by	Chris Martin	10.30.22	1237
Received by			
Relinquished by			
Received in lab by	Alex Walker OCT 30 2022		1237

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	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.#: 22J0658

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
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	10/31/22	11:10	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.9 / 26.4 °C
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
OCT 31 2022
By Alex Walk Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: GK	Golan K IPC	10/31/22	11:10
Received by:	Cindy Marin	10/31/22	11:10
Relinquished by: CM	Cindy MARIN	10/31/22	1230
Received by:			
Relinquished by:			
Received in lab by: Alex Walk Jr.	Alex Walk Jr	OCT 31 2022	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
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.#: 22K0032

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Jesus Scobar
		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	11/01/22	12:15	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.4 | 25.9 °C
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

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NOV 01 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Scobar	Jesus Scobar (IPC)	11/01/22	12:20
Received by:	Cindy Martinez	11-1-22	12:22
Relinquished by:	Cindy Martinez	11-1-22	1350
Received by:			
Relinquished by:			
Received in lab by:	Alex Wanuth	NOV 01 2022	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
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.#: 22K0072

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Mani Aguirre
		Report Attention:	Ric Wardel / 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	11/2/22	11:25	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.1 / 186
1	11	11	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Mani Aguirre (IPC)	11/2/22	11:45
Received by		Cindy Martinez	11-2-22	1235
Relinquished by		Cindy Martinez	11-2-22	14:00
Received by				
Relinquished by				
Received in lab by		Alex Walston	NOV 02 2022	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
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

CHAIN OF CUSTODY RECORD

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

Environmental Sample

Sample I.D.#: 22K0106

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	11/3/22	10:30	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.6 / 13.1C
	↓	↓	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	11/3/22	10:50
Received by	Edwin Gonzalez	11/3/22	12:52
Relinquished by	Edwin Gonzalez	11/3	15:01
Received by			
Relinquished by			
Received in lab by	Alex Walton	NOV 03 2022	1501

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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CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
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Environmental Sample

Sample I.D.#: 22K0138

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	11/04/22	11:30	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.6 / 23.4 °C
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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NOV 04 2022
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Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	11/04/22	11:40
Received by:	Cindy Arana	11-4-22	1150
Relinquished by:	Cindy Arana	11-4-22	13:15
Received by:			
Relinquished by:			
Received in lab by:	Alex Avalos NOV 04 2022		13:15

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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CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
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Environmental Sample

Sample I.D.#: 22K0168

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Jesus Arcos 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	11/05/22	11:55	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	
4	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: Jesus Arcos	Jesus Arcos (IPC)	11/05/22	12:00
Received by:	Richard Martinez (PCL)	11/05/22	1200
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard Martinez (PCL)	11/05/22	1445

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
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Environmental Sample

Sample I.D.#: 22K0175

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	11/6/22	10:52	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.6/23.3
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	11/6/22	11:00
Received by	Cindy Mathis	11-6-22	11:00
Relinquished by	Cindy Mathis	11-6-22	2:46
Received by			
Relinquished by			
Received in lab by	Alex Watkins Jr. NOV 04 2022		1240

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
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-Dec-22 09:32
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22K0195-01) Collected: 07-Nov-22 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK20730	1.8	07-Nov-22	11-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK20730	1.8	07-Nov-22	11-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK21436	0.1	07-Nov-22	07-Nov-22	**8.3 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK20738	0.05	07-Nov-22	07-Nov-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22K0227-01) Collected: 08-Nov-22 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK20828	1.8	08-Nov-22	11-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK20828	1.8	08-Nov-22	11-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK21436	0.1	08-Nov-22	08-Nov-22	**7.8 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK20831	0.05	08-Nov-22	08-Nov-22	**0.06 mg/l**	
EFF (Sample I.D.# : 22K0284-01) Collected: 09-Nov-22 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK20938	1.8	09-Nov-22	11-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK20938	1.8	09-Nov-22	11-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK21436	0.1	09-Nov-22	09-Nov-22	**7.9 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK20943	0.05	09-Nov-22	09-Nov-22	**0.96 mg/l**	
EFF (Sample I.D.# : 22K0314-01) Collected: 10-Nov-22 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK21009	1.8	10-Nov-22	12-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK21009	1.8	10-Nov-22	12-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK21436	0.1	10-Nov-22	10-Nov-22	**7.9 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK21010	0.05	10-Nov-22	10-Nov-22	**0.06 mg/l**	

Respectfully Submitted,

Stephen Sakai 12/6/2022
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-Dec-22 09:32
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22K0338-01) Collected: 11-Nov-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK21117	1.8	11-Nov-22	13-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK21117	1.8	11-Nov-22	13-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK21436	0.1	11-Nov-22	11-Nov-22	**7.8 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK21118	0.05	11-Nov-22	11-Nov-22	**0.06 mg/l**	
EFF (Sample I.D.# : 22K0349-01) Collected: 12-Nov-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK21223	1.8	12-Nov-22	14-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK21223	1.8	12-Nov-22	14-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK21436	0.1	12-Nov-22	12-Nov-22	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK21440	0.05	14-Nov-22	14-Nov-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22K0365-01) Collected: 13-Nov-22 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK21313	1.8	13-Nov-22	15-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK21313	1.8	13-Nov-22	15-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK21436	0.1	14-Nov-22	17-Nov-22	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK21440	0.05	14-Nov-22	14-Nov-22	**0.05 mg/l**	
EFF (Sample I.D.# : 22K0390-01) Collected: 14-Nov-22 By CA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK21438	1.8	14-Nov-22	16-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK21438	1.8	14-Nov-22	16-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22124	0.1	14-Nov-22	14-Nov-22	**7.2 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK21440	0.05	14-Nov-22	14-Nov-22	**0.06 mg/l**	

Respectfully Submitted,

Stephen Sakai 12/6/2022
Lab Director

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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: 06-Dec-22 09:32
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22K0429-01) Collected: 15-Nov-22 By GK of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK21535	1.8	15-Nov-22	17-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK21535	1.8	15-Nov-22	17-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22124	0.1	15-Nov-22	15-Nov-22	**7.2 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK21537	0.05	15-Nov-22	15-Nov-22	**<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 12/6/2022
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.#: 22K0195

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	11/7/22	1110	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.6 / 24.1 °C
u	u	u	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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NOV 07 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel Huey	Daniel (IPC)	11/7/22	1115
Received by		Cindy Mapp	11-7-22	1320
Relinquished by			11-7-22	1422
Received by				
Relinquished by				
Received in lab by		Alex Walker Jr	NOV 07 2022	1422

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.#: 22K0227

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Mani 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	11/2/22	11:08	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	6.4 / 22.8 °C
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Mani Aguirre (IPC)	11/8/22	12:07
Received by		Cindy Martinez	11-8-22	1322
Relinquished by		Cindy Martinez	11-8-22	1447
Received by				
Relinquished by				
Received in lab by		Alex Walliser NOV 0 8 2022		1442

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.

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.#: 22K0284

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	11/9/22	1115	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	6.6 / 22.9
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
11-9-22
By Alex Walton Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel Huey	Daniel (IPC)	11/9/22	1200
Received by		Cindy Martinez	11-9-22	1300
Relinquished by		Cindy Martinez	11-9-22	1500
Received by				
Relinquished by				
Received in lab by	Alex Walton Jr.	Alex Walton Jr.	11-9-22	1500

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

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 - $CuSO_4$

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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.#: 22K0314

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	11/10/22	10:30	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.1 / 9.6 C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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NOV 10 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	11/10/22	10:34
Received by	Cindy Mahner	11-10-22	12:40
Relinquished by	Cindy Mahner	11-10-22	14:16
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr. NOV 10 2022		14:16

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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San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

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

Environmental Sample

Sample I.D.#: 22R0338

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	11/11/22	11:00	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.4 / 22.6
	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	22.
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
NOV 11 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	11/11/22	11:05
Received by: Cindy Montañez	Cindy Montañez	11-11-22	1130
Relinquished by: Cindy Montañez	Cindy Montañez	11-11-22	1358
Received by:			
Relinquished by:			
Received in lab by: Alec Halvorson	Alec Halvorson	NOV 11 2022	1352

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.#: 22K0349

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Doug Ayles
		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	11/12/22	11:00	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	
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: Doug Ayles	Doug Ayles (IPC)	11/12/22	11:05
Received by:	Richard Martinez (FedEx)	11/12/22	12:00
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard Martinez (FedEx)	11/12/22	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	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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CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
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Environmental Sample

Sample I.D.#: 22K0365

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	11/13/22	10:12	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.3 12.4°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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NOV 13 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Jonathan Wu (IPC)	11/13/22	10:20
Received by		Cindy Martinez	11-13-22	12pm
Relinquished by		Cindy Martinez	11.13.22	13:06
Received by				
Relinquished by				
Received in lab by		Alex Watson NOV 13 2022		1302

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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CHAIN OF CUSTODY RECORD

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Environmental Sample

Sample I.D.#: 22K0390

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	11/14/22	1155	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.2 / 24.5 C
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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NOV 14 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	11/14/22	1204
Received by		Cindy Mapping	11-14-22	12:04
Relinquished by		Cindy Mapping	11-14-22	1332
Received by				
Relinquished by				
Received in lab by		Alex Walker Jr	NOV 14 2022	1332

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.

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CHAIN OF CUSTODY RECORD

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

Environmental Sample

Sample I.D.#: 22K0429

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	11/15/22	12:10	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.2 | 7.5
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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NOV 15 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by GK	Golan IPC	11/15/22	1225
Received by	Cindy MAPPING	11/15/22	1225
Relinquished by	Cindy MAPPING	11/15/22	1350
Received by			
Relinquished by			
Received in lab by	Alex Walle Jr NOV	15 2022	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
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-Nov-22 17:11
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22K0478-01) Collected: 16-Nov-22 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK21639	1.8	16-Nov-22	18-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK21639	1.8	16-Nov-22	18-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22124	0.1	16-Nov-22	16-Nov-22	**7.2 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK21710	0.05	17-Nov-22	17-Nov-22	**0.05 mg/l**	
EFF (Sample I.D.# : 22K0541-01) Collected: 17-Nov-22 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK21705	1.8	17-Nov-22	19-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK21705	1.8	17-Nov-22	19-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22124	0.1	17-Nov-22	17-Nov-22	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK21811	0.05	18-Nov-22	18-Nov-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22K0578-01) Collected: 18-Nov-22 By GK of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK21806	1.8	18-Nov-22	20-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK21806	1.8	18-Nov-22	20-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22124	0.1	18-Nov-22	18-Nov-22	**7.3 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK21811	0.05	18-Nov-22	18-Nov-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22K0589-01) Collected: 19-Nov-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK21922	1.8	19-Nov-22	21-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK21922	1.8	19-Nov-22	21-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22837	0.1	19-Nov-22	19-Nov-22	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK22129	0.05	21-Nov-22	21-Nov-22	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 11/29/2022
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-Nov-22 17:11
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22K0597-01) Collected: 20-Nov-22 By Mario Aguirre of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK22030	1.8	20-Nov-22	22-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK22030	1.8	20-Nov-22	22-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22837	0.1	20-Nov-22	20-Nov-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK22129	0.05	21-Nov-22	21-Nov-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22K0632-01) Collected: 21-Nov-22 By CA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK22125	1.8	21-Nov-22	23-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK22125	1.8	21-Nov-22	23-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22837	0.1	21-Nov-22	21-Nov-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK22129	0.05	21-Nov-22	21-Nov-22	**0.66 mg/l**	
EFF (Sample I.D.# : 22K0692-01) Collected: 22-Nov-22 By GK of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK22204	1.8	22-Nov-22	25-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK22204	1.8	22-Nov-22	25-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22837	0.1	22-Nov-22	22-Nov-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK22317	0.05	23-Nov-22	23-Nov-22	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 11/29/2022
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-Nov-22 17:11
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 11/29/2022
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.#: 22K0478

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	11/16/22	11:49	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.2 / 24.2
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
NOV 16 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	11/16/22	12:11
Received by	Cindy Martinez	11-16-22	12:11
Relinquished by	Cindy Martinez	11-16-22	1325
Received by			
Relinquished by			
Received in lab by	Alex Walker	NOV 16 2022	1325

Sample Received Checklist

Temperature upon receipt: 4.6

# 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.#: 22K0541

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	11/17/22	12:20	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.7/23.6°C
	↓	↓	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
NOV 17 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	11/17/22	12:25
Received by	Cindy Martinez	11/17/22	12:26
Relinquished by	Cindy Martinez	11/17/22	3:08
Received by			
Relinquished by			
Received in lab by	Alex Watson	NOV 17 2022	1508

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.#: 22K0578

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	11/18/22	12:25	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.29/22.7°C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
NOV 18 2022
By Alex Walworth Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by GK	Golan IPC	11/18/22	1225
Received by	MARIO SANTIESTEBAN (PCL)	11/9/22	1225
Relinquished by	MARIO SANTIESTEBAN (PCL)	11/18/22	1415
Received by			
Relinquished by			
Received in lab by	Alex Walworth	NOV 18 2022	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
Al - $AlCl_3$
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.#: 2260589

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Jesus Avila
		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	11/19/22	11:00	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	
4	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: Jesus Avila	Jesus Avila (IPC)	11/19/22	11:05
Received by: Richard Martinez	Richard Martinez (SCI)	11/19/22	1130
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by: Richard Martinez	Richard Martinez (SCI)	11/19/22	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.

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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.#: 22K0597

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Mario Aguirre	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	11/20/22	10:45	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.6 / 21.0
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
NOV 20 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	11/20/22	10:48
Received by	Cindy Martinez	11/20/22	1150
Relinquished by	Cindy Martinez	11/20/22	1250
Received by			
Relinquished by			
Received in lab by	Alex Walk Jr NOV 20 2022		1250

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.#: 22K0632

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
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	11/21/22	1145	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.5/16.5 - C
1	1	1	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
NOV 21 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	11/21/22	1150
Received by		Cindy Mapping	11/21/22	1250
Relinquished by		Cindy Mapping	11/21/22	14:16
Received by				
Relinquished by				
Received in lab by		Alex Walton	NOV 21 2022	1416

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.#: 22K0692

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Golan Kfir	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	11/22/22	13:40	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.6/21.7 °C
	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
NOV 22 2022
By Alex Walhalla Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by GK	Golan IPC	11/22/22	1230
Received by	Cindy MARTINEZ	11/22/22	1230
Relinquished by	Cindy MARTINEZ	11/22/22	1455
Received by			
Relinquished by			
Received in lab by	Alex Walhalla Jr. NOV 22 2022		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
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: 07-Dec-22 09:21
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22K0729-01) Collected: 23-Nov-22 By CA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK22308	1.8	23-Nov-22	25-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK22308	1.8	23-Nov-22	25-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22837	0.1	23-Nov-22	23-Nov-22	**7.3 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK22317	0.05	23-Nov-22	23-Nov-22	**0.06 mg/l**	
EFF (Sample I.D.# : 22K0756-01) Collected: 25-Nov-22 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AK22618	1.8	26-Nov-22	28-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK22618	1.8	26-Nov-22	28-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22837	0.1	25-Nov-22	25-Nov-22	**7.0 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK22844	0.05	28-Nov-22	28-Nov-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22K0758-01) Collected: 24-Nov-22 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK22618	1.8	26-Nov-22	28-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK22618	1.8	26-Nov-22	28-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22837	0.1	24-Nov-22	24-Nov-22	**7.0 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK22844	0.05	28-Nov-22	28-Nov-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22K0782-01) Collected: 26-Nov-22 By Customer							
Microbiological							
Fecal Coliforms	SM 9221E	AK22618	1.8	26-Nov-22	28-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK22618	1.8	26-Nov-22	28-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22837	0.1	26-Nov-22	26-Nov-22	**7.0 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK22844	0.05	28-Nov-22	28-Nov-22	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 12/7/2022
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: 07-Dec-22 09:21
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22K0794-01) Collected: 27-Nov-22 By Carlos A. of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK22719	1.8	27-Nov-22	29-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK22719	1.8	27-Nov-22	29-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AK22837	0.1	27-Nov-22	27-Nov-22	**7.1 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK22844	0.05	28-Nov-22	28-Nov-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22K0824-01) Collected: 28-Nov-22 By Carlos A. of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK22842	1.8	28-Nov-22	30-Nov-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK22842	1.8	28-Nov-22	30-Nov-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL20532	0.1	28-Nov-22	28-Nov-22	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK22844	0.05	28-Nov-22	28-Nov-22	**0.07 mg/l**	
EFF (Sample I.D.# : 22K0861-01) Collected: 29-Nov-22 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK22928	1.8	29-Nov-22	01-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK22928	1.8	29-Nov-22	01-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL20532	0.1	29-Nov-22	29-Nov-22	**7.8 pH Units**	
Residual Chlorine	SM 4500Cl-G	AK23039	0.05	30-Nov-22	30-Nov-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22K0876-01) Collected: 30-Nov-22 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AK23035	1.8	30-Nov-22	02-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AK23035	1.8	30-Nov-22	02-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL20532	0.1	30-Nov-22	30-Nov-22	**7.4 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL20536	0.05	05-Dec-22	05-Dec-22	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 12/7/2022
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: 07-Dec-22 09:21
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22L0037-01) Collected: 01-Dec-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL20109	1.8	01-Dec-22	03-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL20109	1.8	01-Dec-22	03-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL20532	0.1	01-Dec-22	01-Dec-22	**7.1 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL20536	0.05	05-Dec-22	05-Dec-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22L0066-01) Collected: 02-Dec-22 By JW							
Microbiological							
Fecal Coliforms	SM 9221E	AL20208	1.8	02-Dec-22	04-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL20208	1.8	02-Dec-22	04-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL20532	0.1	02-Dec-22	02-Dec-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL20536	0.05	05-Dec-22	05-Dec-22	**<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 12/7/2022
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.#: 22K0729

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
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	11/23/22	1210	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.3 / 23.5 °C
1			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
NOV 23 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	11/23/22	1240
Received by		Cindy Martinez	11.23.22	1240
Relinquished by		Cindy Martinez	11-23-22	1455
Received by				
Relinquished by				
Received in lab by		Alex Walker Jr. NOV 23 2022		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.#: 22K0758

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :** (MCC) Daily EFF	
Address: 9297 Research Drive, Irvine, CA 92618	**Sampled by:** Jonathan Wu ~~Ric Vardel / Golan Kfir~~	**P.O. #:**	
	Report Attention:	**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	11/24/22	10:10	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	Jonathan Wu (IPC)	11/24/22	10:15
Received by	Edwin Gonzalez	11/24/22	10:15
Relinquished by	Edwin Gonzalez	11/24/22	13:04
Received by			
Relinquished by			
Received in lab by	MARIS SANTESTEBAN (PCL)	11/24/22	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
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.

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.#: 22K0756

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	11/25/22	11:05	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	Jonathan Wu (IPC)	11/25/22	11:12
Received by	Richard Martinez (PCL)	11/25/22	1155
Relinquished by	Richard M. (PCL)	11/25/22	1440
Received by			
Relinquished by			
Received in lab by	Richard M. (PCL)	11/25/22	1445

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.#: 22K0782

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Jesus Andres 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	11/26/22	11:50	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	
1/	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: Jesus Andres	Jesus Andres (IPC)	11/26/22	11:55
Received by:	Richard Martinez (PCL)	11/26/22	1216
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by:	Richard Martinez (PCL)	11/26/22	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	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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CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
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Environmental Sample

Sample I.D.#: 22K0794

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
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	11/27/22	0905	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.1 / 12.0 °C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
1	1	1							
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	11/27/22	0910
Received by		Cindy MARTINEZ	11/27/22	11:00
Relinquished by				
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
Fax (818) 639-5306

Environmental Sample

Sample I.D.#: 22k0824

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
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	11/28/22	1150	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.35/18.3
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
	1	1							

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By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	11/28/22	1200
Received by		MARCO SANTIESTEBAN (PCL)	11/28/22	1200
Relinquished by		MARCO SANTIESTEBAN (PCL)	11/28/22	1350
Received by				
Relinquished by				
Received in lab by		Alex Walton NOV 2 8 2022		1330

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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CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
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Environmental Sample

Sample I.D.#: 22K0861

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	11/29/22	1135	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.80/21.3°C
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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NOV 29 2022
By Alex Walker Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Huey	Daniel (IPC)	11/29/22	1220
Received by:	Juan Devis (PCL)	11/29/22	12:29
Relinquished by:	Juan Devis (PCL)	11/29/22	14:21
Received by:			
Relinquished by:			
Received in lab by: Alex Walker Jr.	Alex Walker Jr.	NOV 29 2022	1421

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

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	

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CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
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Environmental Sample

Sample I.D.#: 22K0876

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Mani Aguirre	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	11/30/22	11:05	1	pH; T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.4/16.5°C
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

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NOV 30 2022
By Alex Walker Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by	Mani Aguirre (IPC)	11/30/22	11:16
Received by	Cindy Mathews	11-30-22	1140
Relinquished by	Cindy Mathews	11-30-22	13:15
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr. NOV 30 2022		1315

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	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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CHAIN OF CUSTODY RECORD

Phone (818) 639-5300
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Environmental Sample

Sample I.D.#: 2210037

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	12/01/22	10:50	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7 / 12.5 °C
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

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By

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	12/01/22	10:55
Received by:	Cindy Martinez	12.1.22	1205
Relinquished by:	Cindy Martinez	12.1.22	1420
Received by:			
Relinquished by:			
Received in lab by:	Alex Wanstor DEC 0 1 2022		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 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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CHAIN OF CUSTODY RECORD

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Environmental Sample

Sample I.D.#: 2211066

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	11/02/22	10:44	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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DEC 02 2022

pH 7-5 / 6.8 . C

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	11/02/22	10:51
Received by	Cindy Matray	11-2-22	13:20pm
Relinquished by	Cindy Matray	11-2-22	2:06
Received by			
Relinquished by			
Received in lab by	Alex Walton	DEC 02 2022	1406

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: 24-Dec-22 01:36
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22L0121-01) Collected: 03-Dec-22 By JW							
Microbiological							
Fecal Coliforms	SM 9221E	AL20321	1.8	03-Dec-22	05-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL20321	1.8	03-Dec-22	05-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL20532	0.1	03-Dec-22	03-Dec-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL20536	0.05	05-Dec-22	05-Dec-22	**0.06 mg/l**	
EFF (Sample I.D.# : 22L0133-01) Collected: 04-Dec-22 By JW							
Microbiological							
Fecal Coliforms	SM 9221E	AL20416	1.8	04-Dec-22	06-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL20416	1.8	04-Dec-22	06-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL20532	0.1	04-Dec-22	04-Dec-22	**7.9 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL20536	0.05	05-Dec-22	05-Dec-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22L0150-01) Collected: 05-Dec-22 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL20529	1.8	05-Dec-22	08-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL20529	1.8	05-Dec-22	08-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL20907	0.1	05-Dec-22	05-Dec-22	**7.2 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL20632	0.05	06-Dec-22	06-Dec-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22L0193-01) Collected: 06-Dec-22 By CA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL20623	1.8	06-Dec-22	08-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL20623	1.8	06-Dec-22	08-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL20907	0.1	06-Dec-22	06-Dec-22	**7.2 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL20738	0.05	07-Dec-22	07-Dec-22	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 12/24/2022
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
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Customer: **Integrated Performance Consultants, Inc.**
9297 Research Drive
Irvine CA, 92618

Attention: Ric Vardel
Report Date: 24-Dec-22 01:36
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22L0262-01) Collected: 07-Dec-22 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL20733	1.8	07-Dec-22	09-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL20733	1.8	07-Dec-22	09-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL20907	0.1	07-Dec-22	07-Dec-22	**7.8 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL21230	0.05	12-Dec-22	12-Dec-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22L0304-01) Collected: 08-Dec-22 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL20816	1.8	08-Dec-22	10-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL20816	1.8	08-Dec-22	10-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL20907	0.1	09-Dec-22	15-Dec-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL21230	0.05	12-Dec-22	12-Dec-22	**0.05 mg/l**	
EFF (Sample I.D.# : 22L0328-01) Collected: 09-Dec-22 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL20910	1.8	09-Dec-22	12-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL20910	1.8	09-Dec-22	12-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL21935	0.1	09-Dec-22	09-Dec-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL21230	0.05	12-Dec-22	12-Dec-22	**0.06 mg/l**	
EFF (Sample I.D.# : 22L0346-01) Collected: 10-Dec-22 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL21020	1.8	10-Dec-22	14-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL21020	1.8	10-Dec-22	14-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL21935	0.1	10-Dec-22	10-Dec-22	**7.8 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL21230	0.05	12-Dec-22	12-Dec-22	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 12/24/2022
Lab Director

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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: 24-Dec-22 01:36
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22L0367-01) Collected: 11-Dec-22 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL21112	1.8	11-Dec-22	14-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL21112	1.8	11-Dec-22	14-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL21935	0.1	11-Dec-22	11-Dec-22	**7.9 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL21230	0.05	12-Dec-22	12-Dec-22	**0.06 mg/l**	
EFF (Sample I.D.# : 22L0403-01) Collected: 12-Dec-22 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL21232	1.8	12-Dec-22	15-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL21232	1.8	12-Dec-22	15-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL21935	0.1	12-Dec-22	12-Dec-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL21335	0.05	13-Dec-22	13-Dec-22	**0.10 mg/l**	
EFF (Sample I.D.# : 22L0471-01) Collected: 13-Dec-22 By Kyle Vardel of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL21336	1.8	13-Dec-22	16-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL21336	1.8	13-Dec-22	16-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL21935	0.1	13-Dec-22	13-Dec-22	**7.8 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL21512	0.05	15-Dec-22	15-Dec-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22L0502-01) Collected: 14-Dec-22 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL21440	1.8	14-Dec-22	16-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL21440	1.8	14-Dec-22	16-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL21935	0.1	14-Dec-22	14-Dec-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL21512	0.05	15-Dec-22	15-Dec-22	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 12/24/2022
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-Dec-22 01:36
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22L0549-01) Collected: 15-Dec-22 By MA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL21514	1.8	15-Dec-22	17-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL21514	1.8	15-Dec-22	17-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL21935	0.1	15-Dec-22	15-Dec-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL21608	0.05	16-Dec-22	16-Dec-22	**0.05 mg/l**	
EFF (Sample I.D.# : 22L0580-01) Collected: 16-Dec-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL21606	1.8	16-Dec-22	18-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL21606	1.8	16-Dec-22	18-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL21935	0.1	16-Dec-22	16-Dec-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL21608	0.05	16-Dec-22	16-Dec-22	**0.09 mg/l**	
EFF (Sample I.D.# : 22L0598-01) Collected: 17-Dec-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL21725	1.8	17-Dec-22	19-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL21725	1.8	17-Dec-22	19-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL21935	0.1	17-Dec-22	17-Dec-22	**6.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL21936	0.05	19-Dec-22	19-Dec-22	**<0.05 mg/l**	
EFF (Sample I.D.# : 22L0634-01) Collected: 18-Dec-22 By JA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL21817	1.8	18-Dec-22	20-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL21817	1.8	18-Dec-22	20-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL21935	0.1	18-Dec-22	18-Dec-22	**7.9 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL21936	0.05	19-Dec-22	19-Dec-22	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 12/24/2022
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-Dec-22 01:36
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22L0652-01) Collected: 19-Dec-22 By KV of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL21927	1.8	19-Dec-22	21-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL21927	1.8	19-Dec-22	21-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL22314	0.1	19-Dec-22	19-Dec-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL22022	0.05	20-Dec-22	20-Dec-22	**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 12/24/2022
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.#: 2210121

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	12/3/22	11:50	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: Jesus Avalos	Jesus Avalos (IPC)	12/3/22	11:55
Received by: Richard Martinez (BA)	Richard Martinez (BA)	12/5/22	1240
Relinquished by:			
Received by:			
Relinquished by:			
Received in lab by: Richard Martinez (BA)	Richard Martinez (BA)	12/5/22	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	**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.#: 2240133

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	
		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	12/4/22	940	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.9/7.6 C
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
DEC 04 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	12/4/22	945
Received by	Cindy Mathews	12.4.22	1200
Relinquished by	Cindy Mathews	12-4-22	1320
Received by			
Relinquished by			
Received in lab by	Alex Watson DEC	04 2022	1320

Sample Received Checklist

Temperature upon receipt: Y/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 **AA** - Ascorbic Acid **Al** - $AlCl_3$ **Cu** -$CuSO_4$
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.#: 2210150

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	12/5/22	1120	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	
u	u	u	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
DEC 05 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel (IPC)	12/5/22	1125
Received by	MARIO SANTIESTEBAN (PCL)	12/5/22	342
Relinquished by	MARIO SANTIESTEBAN (PCL)	12/5/22	1530
Received by			
Relinquished by			
Received in lab by	Alex Walton DEC 05 2022		1530

Sample Received Checklist

Temperature upon receipt: 4.2

# 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.#: 2210193

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	12/06/22	1200	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.2/23.8°C
1	1	1	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
NOV 06 2022
By Alex Walker Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by	Carlos Alvarez (IPC)	12/06/22	1200
Received by	Cindy Warner	12-6-22	1245
Relinquished by	Cindy Warner	12.6.22	2:15
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr. NOV 06 2022		14:15

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

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 - $CuSO_4$

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.#: 2260262

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	12/7/22	11:12	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.76
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
DEC 07 2022
By Alex Walls Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	12/7/22	11:32
Received by	Cindy Martinez	12-7-22	1132
Relinquished by	Cindy Martinez	12-7-22	1308
Received by			
Relinquished by			
Received in lab by	Alex Walls Jr.	DEC 07 2022	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.

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.#: 2210304

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	12/8/22	1125	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.48 / 22.5C
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
DEC. 08 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Daniel (IPC)	12/8/22	1140
Received by		MARIO SANTIESTEBAN (PCL)	12/8/22	1305
Relinquished by		MARIO SANTIESTEBAN (PCL)	12/8/22	1535
Received by				
Relinquished by				
Received in lab by		Alex Hamden DEC.	08 2022	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 **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.

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.#: 2260328

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	12/9/22	11:04	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
DEC 09 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	12/9/22	11:20
Received by	Richard M. (PCL)	12/9/22	1310
Relinquished by	Richard M. (PCL)	12/9/22	1530
Received by			
Relinquished by			
Received in lab by	Alex Calvillo Jr. DEC	09 2022	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
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.#: 22L0346

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	12/10/22	11:30	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	
1/	1/	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)	12/10/22	11:40
Received by:	Richard Martinez (PCL)	12/10/22	11:40
Relinquished by:	Richard M. (PCL)	12/10/22	1230
Received by:			
Relinquished by:			
~~Received in lab by~~:	Richard M. (PCL)	12/10	1238

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.#: 2260367

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	
		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	12-11-22	11 00	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.9 19.2
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

PCL

RECEIVED
DEC 11 2022
By

I.D# 2J052

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		E. MORRIS	12-11-22	11:06
Received by		Cindy MAPENS	12-11-22	12:13
Relinquished by		Cindy MAPENS	12-11-22	1305
Received by				
Relinquished by				
Received in lab by		Alex Wawrzyn DEC	11 2022	1310

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.

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.#: 2210403

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	12/12/22	11:15	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.60
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
DEC 12 2022
By Alex Walton Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	12/12/22	11:37
Received by	MARJO SANTIESTEBAN (PCL)	12/12/22	1355
Relinquished by	MARJO SANTIESTEBAN (PCL)	12/12/22	1535
Received by			
Relinquished by			
Received in lab by	Alex Walton DEC 12 2022		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 **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.#: 2210471

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Kyle Vardel 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	12/13/22	1100	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
DEC 13 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Kyle Vardel (IPC)	12/13/22	1100
Received by	MARIO SANTIESTEBAN (PCL)	12/13/22	1600
Relinquished by	MARIO SANTIESTEBAN (PCL)	12/13/22	1820
Received by			
Relinquished by			
Received in lab by	Alex Watson DEC	13 2022	1820

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.#: 2260512

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	12/14/22	11:17	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.49
1"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

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DEC 14 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	12/14/22	11:32
Received by	MARIO SANTIESTEBAN (PCL)	12/14/22	1140
Relinquished by	MARIO SANTIESTEBAN (PCL)	12/14/22	1528
Received by			
Relinquished by			
Received in lab by	Alex Walworth DEC	14 2022	1520

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.#: 2260549

Customer: IPC - Integrated Performance Consultants, Inc.		Project: (MCC) Daily EFF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Marie 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	12/15/22	11:26	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.58
11	11	11	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
DEC 15 2022
Alex Walker Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by	Marie Aguirre (IPC)	12/15/22	11:46
Received by	MARIO SANTIESTEBAN (PCL)	12/15/22	1323
Relinquished by	MARIO SANTIESTEBAN (PCL)	12/15/22	1545
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr. DEC 15 2022		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	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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Pat-Chem Laboratories
1824 1st Street
San Fernando, CA 91340

CHAIN OF CUSTODY RECORD

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

Environmental Sample 22L0580

Sample I.D.#: ~~22L0578~~ MS

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	12/16/22	11:00	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.58
〃	〃	〃	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
DEC 16 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Avalos	Jesus Avalos (IPC)	12/16/22	11:05
Received by:	ALFREDO SANTIESTEBAN (PCL)	12/16/22	1350
Relinquished by:	ALFREDO SANTIESTEBAN (PCL)	12/16/22	1530
Received by:			
Relinquished by:			
Received in lab by:	Alex Wallin DEC 16 2022		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 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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CHAIN OF CUSTODY RECORD

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

Environmental Sample

Sample I.D.#: 2210598

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Daily EFF	
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	12/17/22	0940	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							
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

Signature	Print Name (Company)	Date	Time
Relinquished by	Carlos Alvarez (IPC)	12/17/22	0945
Received by	Richard M (PCL)	12/17/22	1200
Relinquished by			
Received by			
Relinquished by			
Received in lab by	Richard Martinez (PCL)	12/17/22	1425

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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CHAIN OF CUSTODY RECORD

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

Environmental Sample

Sample I.D.#: 2260634

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	12/18/22	950	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.9 / 13.3
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
DEC 17 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Eric Morris	12/18/22	1005
Received by	Cindy Mathers	12-18-22	1125
Relinquished by	Cindy Mathers	12.18.22	12:06
Received by			
Relinquished by			
Received in lab by	Alex Walton DEC 17 2022		1206

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
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.#: 2210652

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	12/19/22	1140	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
DEC 19 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Kyle Vardel (IPC)	12/19/22	1145
Received by	MARIO SANTESTEBAN (PCL)	12/19/22	1335
Relinquished by	MARIO SANTESTEBAN (PCL)	12/19/22	1335
Received by			
Relinquished by			
Received in lab by	Alex Walton Jr. DEC	19 2022	1335

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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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-Jan-23 00:35
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22L0688-01) Collected: 20-Dec-22 By CA of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL22023	1.8	20-Dec-22	23-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL22023	1.8	20-Dec-22	23-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL22314	0.1	20-Dec-22	20-Dec-22	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL22124	0.05	21-Dec-22	21-Dec-22	**0.05 mg/l**	
EFF (Sample I.D.# : 22L0724-01) Collected: 21-Dec-22 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL22138	1.8	21-Dec-22	23-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL22138	1.8	21-Dec-22	23-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL22314	0.1	21-Dec-22	21-Dec-22	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL22205	0.05	22-Dec-22	22-Dec-22	**0.07 mg/l**	
EFF (Sample I.D.# : 22L0758-01) Collected: 22-Dec-22 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL22210	1.8	22-Dec-22	24-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL22210	1.8	22-Dec-22	24-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL22314	0.1	22-Dec-22	22-Dec-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL22307	0.05	23-Dec-22	23-Dec-22	**0.08 mg/l**	
EFF (Sample I.D.# : 22L0783-01) Collected: 23-Dec-22 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL22308	1.8	23-Dec-22	25-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL22308	1.8	23-Dec-22	25-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL23007	0.1	23-Dec-22	23-Dec-22	**7.6 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL22724	0.05	27-Dec-22	27-Dec-22	**<0.05 mg/l**	

Respectfully Submitted,

Stephen Sakai 1/4/2023
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-Jan-23 00:35
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22L0795-01) Collected: 24-Dec-22 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL22405	1.8	24-Dec-22	26-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL22405	1.8	24-Dec-22	26-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL23007	0.1	24-Dec-22	24-Dec-22	**7.8 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL22836	0.05	28-Dec-22	28-Dec-22	**0.08 mg/l**	
EFF (Sample I.D.# : 22L0802-01) Collected: 25-Dec-22 By EM of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL22502	1.8	25-Dec-22	27-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL22502	1.8	25-Dec-22	27-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL23007	0.1	25-Dec-22	25-Dec-22	**7.8 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL22836	0.05	28-Dec-22	28-Dec-22	**0.07 mg/l**	
EFF (Sample I.D.# : 22L0811-01) Collected: 26-Dec-22 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL22616	1.8	26-Dec-22	28-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL22616	1.8	26-Dec-22	28-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL23007	0.1	26-Dec-22	26-Dec-22	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL22727	0.05	27-Dec-22	27-Dec-22	**0.11 mg/l**	
EFF (Sample I.D.# : 22L0832-01) Collected: 27-Dec-22 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL22722	1.8	27-Dec-22	29-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL22722	1.8	27-Dec-22	29-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL23007	0.1	27-Dec-22	27-Dec-22	**7.9 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL22727	0.05	27-Dec-22	27-Dec-22	**0.20 mg/l**	

Respectfully Submitted,

Stephen Sakai 1/4/2023
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-Jan-23 00:35
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 1/4/2023
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.#: 2240688

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
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	12/20/22	1115	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							

RECEIVED
DEC 20 2022
By Alex Walker Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Carlos Alvarez (IPC)	12/20/22	1125
Received by	MARIO SANTIESTESTEBAN (PCL)	12/20/22	1255
Relinquished by	MARIO SANTIESTESTEBAN (PCL)	12/20/22	1445
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr. DEC 20 2022		1445

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.#: 2260724

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Daily EFF
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	
		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	12/21/22	1105	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.06/21.5C
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
DEC 21 2022
By Alex Valencia Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel (IPC)	12/21/22	1115
Received by	Richard M. (PCL)	12/21/22	1330
Relinquished by	Richard M. (PCL)	12/21/22	1450
Received by			
Relinquished by			
Received in lab by	Alex Valencia DEC 21 2022		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	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.#: 2240758

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	12/22/22	10:54	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.63 / 20.6C°
EFF	↓	↓	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
DEC 2 2 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	12/22/22	11:02
Received by	Juan D. (PLC)	12/22/22	12:15
Relinquished by	Juan D. (PLC)	12/22/22	15:15
Received by			
Relinquished by			
Received in lab by	Alex Wardan DEC 2 2 2022		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
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.#: 2210783

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	12/23/22	1135	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.59/21.2°C
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
DEC 23 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel (IPC)	12/23/22	1145
Received by	Juan D. (PCL)	12/23/22	1300
Relinquished by	Juan Davis (PCL)	12/23/22	15:15
Received by			
Relinquished by			
Received in lab by	Alex Wahman	DEC 23 2022	1518

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.#: 22L0795

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	12/24/22	9:55	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	
4/	4	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)	12/24/22	10:00
Received by:	Richard M. (PCL)	12/24/22	10:00
Relinquished by:	Richard M. (PCL)	12/24/22	1005
Received by:			
Relinquished by:			
Received in lab by:	Richard M (PCL)	12/24/22	1400

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

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	

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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.#: 2220202

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	12/25/22	1055	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.61 @ 22.8
			1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
DEC 25 2022

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		E. MORRIS	12/25/22	1100
Received by		Cindy Morris	12-25-22	11:00
Relinquished by		Cindy Morris	12-25-22	1233
Received by				
Relinquished by				
Received in lab by		Alex Walker	DEC 25 2022	12:33

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.#: 22L0811

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	12/26/22	11:54	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.68/21.7
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	Jonathan Wu (IPC)	12/26/22	11:59
Received by	MARIO SANTIESTEBAN (PCL)	12/26/22	11:59
Relinquished by			
Received by			
Relinquished by			
Received in lab by	MARIO SANTIESTEBAN (PCL)	12/26/22	1506

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.#: 22L0832

Customer: IPC - Integrated Performance Consultants, Inc.		Project : **(MCC) Daily EFF**	
Address: 9297 Research Drive		Sampled by: Daniel Hwy	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	12/27/22	1135	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.09/21.2°
"	"	11	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
DEC 27 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Hwy	Daniel (IPC)	12/27/22	1230
Received by: MARIO SANTIESTEBAN	MARIO SANTIESTEBAN (PCL)	12/27/22	1320
Relinquished by: MARIO SANTIESTEBAN	MARIO SANTIESTEBAN (PCL)	12/27/22	15:15
Received by:			
Relinquished by:			
Received in lab by: Alex Waller Jr.	Alex Waller Jr. DEC 27 2022		15:15

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: 16-Jan-23 15:41
Subject: (MCC) Daily EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22L0870-01) Collected: 28-Dec-22 By DH of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL22834	1.8	28-Dec-22	30-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL22834	1.8	28-Dec-22	30-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL23007	0.1	28-Dec-22	28-Dec-22	**7.7 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL22906	0.05	29-Dec-22	29-Dec-22	**0.09 mg/l**	
EFF (Sample I.D.# : 22L0895-01) Collected: 29-Dec-22 By JW of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL22914	1.8	29-Dec-22	31-Dec-22	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL22914	1.8	29-Dec-22	31-Dec-22	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AL23007	0.1	30-Dec-22	30-Dec-22	**7.5 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL23015	0.05	30-Dec-22	30-Dec-22	**0.07 mg/l**	
EFF (Sample I.D.# : 22L0921-01) Collected: 30-Dec-22 By ET of IPC							
Microbiological							
Fecal Coliforms	SM 9221E	AL23012	1.8	30-Dec-22	01-Jan-23	**<1.8 MPN/100 ml**	
Total Coliforms	SM 9221B	AL23012	1.8	30-Dec-22	01-Jan-23	**<1.8 MPN/100 ml**	
Inorganic Constituents							
pH	SM 4500H-B	AA30326	0.1	30-Dec-22	30-Dec-22	**7.2 pH Units**	
Residual Chlorine	SM 4500Cl-G	AL23015	0.05	30-Dec-22	30-Dec-22	**0.18 mg/l**	

Respectfully Submitted,

Stephen Sakai 1/16/2023
Lab Director

PAT-CHEM
LABORATORIES

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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: 16-Jan-23 15:41
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 1/16/2023
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.#: 22L0870

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	12/28/22	1135	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.56/21.3C
"	"	"	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	

RECEIVED
DEC 28 2022
By Alex Valdez Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Daniel (IPC)	12/28/22	1150
Received by	MARIO SANTIESTEBAN (PCL)	12/28/22	1357
Relinquished by	MARIO SANTIESTEBAN (PCL)	12/28/22	1555
Received by			
Relinquished by			
Received in lab by	Alex Valdez Jr.	DEC 28 2022	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 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.#: 2210895

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	12/29/22	10:32	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.50 / 20.7°C
EFF	↓	↓	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	↓

RECEIVED
DEC 29 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	12/29/22	10:39
Received by	MARIO SANTIESTEBAN (PCL)	12/29/22	11:39
Relinquished by	MARIO SANTIESTEBAN (PCL)	12/29/22	1300
Received by			
Relinquished by			
Received in lab by	Alex Walkenhorst DEC 29 2022		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.#: 2210921

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	12/30/22	11:02am	1	pH, T.Res.Chlorine	Grab	AQ	500ml Plastic	4°C	7.22 / 15.2°C
EFF	12/30/22	11:02am	1	Total Coliform, Fecal Coliform	Grab	AQ	Coli Bottle	4°C, ST	
Geotracker EDD:									
Logcode: IPCI Global ID: WDR100000359									

RECEIVED
DEC 30 2022
BY

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	12/30/22	11:07am
Received by	Juan Davis (PCL)	12/30/22	1300
Relinquished by	Juan Davis (PCL)	12/30/22	1442
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr.	DEC 30 2022	1442

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
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.# : 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	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.

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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.#: 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	

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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 Walkinson	1/1/23	12:05
Relinquished by			
Received by			
Relinquished by			
Received for Lab by	Alex Walkinson JAN 01 2023		1500

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.

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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.#: 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 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

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 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
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

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

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	

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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.#: 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 Ushakov 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 pc. (PCL)	1/4/23	~~1410~~ 1350
Relinquished by		Richard C. (PCL)	1/4/23	1500
Received by				
Relinquished by				
Received in lab by	Alex Ushakov Jr.	Alex Ushakov JAN	04 2023	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 **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: 13-Oct-22 12:10
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.# : 22J0079-01) Collected: 04-Oct-22 By EM of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AJ20538	1	05-Oct-22	06-Oct-22	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AJ21127	0.10	11-Oct-22	11-Oct-22	**<0.10 mg/l**	
Nitrate as N	EPA 353.2	AJ20535	0.05	05-Oct-22	05-Oct-22	**0.77 mg/l**	
Nitrite as N	EPA 353.2	AJ20535	0.05	05-Oct-22	05-Oct-22	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AJ21124	0.10	11-Oct-22	11-Oct-22	**2.08 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 10/13/2022
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.#: 22J0079

Customer:

Project :

Address:

Sampled by:

P.O. #:

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	10/4/22	11:45	1	TSS	Grab	AQ	1-Liter Plastic	4°C	
		11	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
		h	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	

RECEIVED
OCT 04 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	10/4/22	11:52
Received by	Juan Devisilva	10/4/22	12:21
Relinquished by	Juan Devisilva	10/4/22	14:00
Received by			
Relinquished by			
Received in lab by	Alex Wilson (Acy)	OCT 04 2022	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
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: 11-Oct-22 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.# : 22J0107-01) Collected: 04-Oct-22 By EM of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AJ20611	2	06-Oct-22	11-Oct-22	**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 10/11/2022
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.#: 2210107

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly EFF - B	
Address: 9297 Research Drive Irvine CA 92618		Sampled by: E. Morris 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	10-4-22	2359	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	7.0 11.07

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OCT 05 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: E. Morris	E. Morris	10-5-22	1030
Received by: Cindy Mathey	Cindy Mathey	10.5.22	1142
Relinquished by: Cindy Mathey	Cindy Mathey	10.5.22	1255
Received by:			
Relinquished by:			
Received in lab by: Alexander Jr.	Alexander Jr. (PCL)	OCT 05 2022	1253

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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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-Oct-22 12:33
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.# : 22J0246-01) Collected: 11-Oct-22 By EM of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AJ21227	1	12-Oct-22	12-Oct-22	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AJ21838	0.10	18-Oct-22	19-Oct-22	**0.15 mg/l**	
Nitrate as N	EPA 353.2	AJ21232	0.25	12-Oct-22	12-Oct-22	**0.33 mg/l**	
Nitrite as N	EPA 353.2	AJ21232	0.25	12-Oct-22	12-Oct-22	**<0.25 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AJ21230	0.10	12-Oct-22	13-Oct-22	**1.85 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 10/19/2022
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.#: 22J0246

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - A
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	emorris
		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	10/11/22	1055	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	7.62 | 25.6

RECEIVED
OCT 11 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: emorris	E. MORRIS	10/11/22	1201
Received by:	Cindy Martinez	10.11.22	1210
Relinquished by:	Cindy Martinez	10.11.22	14:40
Received by:			
Relinquished by:			
Received in lab by:	Stacy Walker	OCT 11 2022	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.

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-Oct-22 12:25
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.# : 22J0274-01) Collected: 11-Oct-22 By EM of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AJ21309	2	13-Oct-22	18-Oct-22	**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 10/19/2022
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.#: 22J0274

Customer:	IPC - Integrated Performance Consultants, Inc.	Project:	**(MCC) Weekly EFF - B**
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	
		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	10-11-22	2359	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	7.7 / 10.6 C

RECEIVED
OCT 12 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	10-12-22	1147
Received by	Cindy Martinez	10-12-22	1300
Relinquished by	Cindy Martinez	10-12-22	1430
Received by			
Relinquished by			
Received in lab by	Alex Wanner	OCT 12 2022	1430

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

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: 27-Oct-22 14:57
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.# : 22J0419-01) Collected: 18-Oct-22 By EM of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AJ21927	1	19-Oct-22	19-Oct-22	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AJ22635	0.10	26-Oct-22	27-Oct-22	**0.10 mg/l**	
Nitrate as N	EPA 353.2	AJ21734	0.05	19-Oct-22	19-Oct-22	**<0.05 mg/l**	
Nitrite as N	EPA 353.2	AJ21734	0.05	19-Oct-22	19-Oct-22	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AJ22416	0.20	24-Oct-22	25-Oct-22	**0.43 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 10/27/2022
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.#: 22J0419

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - A
Address:	9297 Research Drive	Sampled by:	E. MORRIS
	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	10/18/22	1035	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	7.2 | 18.4

RECEIVED
OCT 18 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	10/18/22	1140
Received by	Cindy Martinez	10-18-22	1244
Relinquished by	Cindy Martinez	10-18-22	1400
Received by			
Relinquished by			
Received in lab by	Alex Wallin	OCT 18 2022	1400

Sample Received Checklist

Temperature upon receipt: 4.1°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
Matrix	HS - H_2SO_4
AQ - Water	HN - HNO_3
SO -Soil / Sludge	HP - H_3PO_4
OT - Other	OH - NaOH
Bottle Type	ST - Sodium Thiosulfate
P - Plastic	AA - Ascorbic Acid
G - Amber Glass	AI - $AlCl_3$
VOA - 40 ml Vial	Cu -$CuSO_4$
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: 26-Oct-22 13:19
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.# : 22J0449-01) Collected: 18-Oct-22 By EM of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AJ22008	2	20-Oct-22	25-Oct-22	**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 10/26/2022
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.#: 22J0449

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly EFF - B	
Address: 9297 Research Drive Irvine CA 92618		Sampled by: 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	10-18-22	2359	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	7.5 / 9.6 °C

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OCT 19 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	10-19-22	1036
Received by	Cindy MARTINEZ	10-19-22	1155
Relinquished by	Cindy MARTINEZ	10-19-22	1347
Received by			
Relinquished by			
Received in lab by	Alex Calderon Jr.	OCT 19 2022	1347

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
(818) 639-5306 fx
pat-chem.com

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

Attention: Ric Vardel
Report Date: 01-Nov-22 11:33
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.# : 22J0548-01) Collected: 25-Oct-22 By EM of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AJ22636	1	26-Oct-22	26-Oct-22	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AJ22635	0.10	26-Oct-22	27-Oct-22	**0.11 mg/l**	
Nitrate as N	EPA 353.2	AJ22642	0.05	26-Oct-22	26-Oct-22	**0.23 mg/l**	
Nitrite as N	EPA 353.2	AJ22642	0.05	26-Oct-22	26-Oct-22	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AJ23120	0.20	31-Oct-22	01-Nov-22	**0.38 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 11/1/2022
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.#: 22J0548

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - A
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	10/25/22	1055	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	7.5/25.3-C
		"	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
		"	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	

RECEIVED
OCT 25 2022
By Alex Walker Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		E. Murray	10/25/22	1147
Received by		Cindy WATTS	10.25.22	1147
Relinquished by		Cindy Watts	10.25.22	1331
Received by				
Relinquished by				
Received at lab by	Alex Walker Jr.	Alex Walker Jr.	OCT 25 2022	1331

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: 01-Nov-22 15:45
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.# : 22J0573-01) Collected: 25-Oct-22 By CA of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AJ22706	2	27-Oct-22	01-Nov-22	**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 11/1/2022
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.#: 22J0573

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - B
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	10/25/22	2359	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	7.5 / 11.8 °C

RECEIVED
OCT 26 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	10/26/22	1130
Received by		Cindy Mtvos	10/26/22	1230
Relinquished by		Cindy Martinez	10-26-22	1335
Received by				
Relinquished by				
Received in lab by		Alex Wallin	OCT 26 2022	1335

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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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-Nov-22 12:49
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.# : 22K0042-01) Collected: 01-Nov-22 By JA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AK20213	1	02-Nov-22	02-Nov-22	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AK20414	0.10	04-Nov-22	04-Nov-22	**<0.10 mg/l**	
Nitrate as N	EPA 353.2	AK20220	0.05	02-Nov-22	02-Nov-22	**1.46 mg/l**	
Nitrite as N	EPA 353.2	AK20220	0.05	02-Nov-22	02-Nov-22	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AK20931	0.20	09-Nov-22	16-Nov-22	**1.03 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 11/16/2022
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.#: 22K0042

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC)** Weekly **EFF - A**
Address:	9297 Research Drive	Sampled by:	Jesus Andres
	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	11/01/22	12:15	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	7.5 26.8
〃	〃	〃	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
〃	〃	〃	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	

RECEIVED
NOV 0 1 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Andres	Jesus Andres (IPC)	11/01/22	12:20
Received by:	Cindy MARTINEZ	11.1.22	1220
Relinquished by:	Cindy MARTINEZ RH	1221	350
Received by:			
Relinquished by:			
Received in lab by:	Alex Wallace	NOV 0 1 2022	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.

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-Nov-22 19:02
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.# : 22K0090-01) Collected: 01-Nov-22 By MA of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AK20307	2	03-Nov-22	08-Nov-22	**<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 11/8/2022
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.#: 22K0090

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	(MCC) Weekly EFF - B
Address:	9297 Research Drive Irvine CA 92618	Sampled by: Marie 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	11/01/22	0:00	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	7.1 / 18.0°C

RECEIVED
NOV 02 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Marie Aguirre (IPC)	11/2/22	11:45
Received by		Cindy Martinez	11.2.22	1235
Relinquished by		Cindy Martinez	11.2.22	1400
Received by				
Relinquished by				
Received in lab by		Alex Watanabe	NOV 02 2022	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
(G) 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
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-Nov-22 15:30
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.# : 22K0232-01) Collected: 08-Nov-22 By MA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AK21115	1	11-Nov-22	11-Nov-22	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AK21433	0.10	14-Nov-22	15-Nov-22	**<0.10 mg/l**	
Nitrate as N	EPA 353.2	AK20935	0.05	09-Nov-22	09-Nov-22	**0.99 mg/l**	
Nitrite as N	EPA 353.2	AK20935	0.05	09-Nov-22	09-Nov-22	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AK20931	0.20	09-Nov-22	16-Nov-22	**1.15 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 11/16/2022
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.#: 22K0232

Customer: IPC - Integrated Performance Consultants, Inc.

Project: (MCC) Weekly EFF - A

Address: 9297 Research Drive, Irvine, CA 92618

Sampled by: Marc 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	11/8/22	11:12	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	7.5 / 7.0 °C

RECEIVED
NOV 08 2022
BY

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Marc Aguirre (IPC)	11/8/22	12:07
Received by	CM	Cindy Martinez	11-8-22 1322	
Relinquished by		Cindy Martinez	11-8-22 1447	
Received by				
Relinquished by				
Received in lab by		Alex Watson NOV 08 2022		1447

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: 16-Nov-22 15:18
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.# : 22K0291-01) Collected: 08-Nov-22 By DH of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AK21112	2	11-Nov-22	16-Nov-22	**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 11/16/2022
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.#: 22K0291

Customer: IPC - Integrated Performance Consultants, 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	11/8/22	2359	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	7.9 / 15.2 °C

RECEIVED
11-9-22
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Daniel (IPC)	11/9/22	1200
Received by		Cindy Martinez	11-9-22	13:15
Relinquished by		Cindy Martinez	11-9-22	1520
Received by				
Relinquished by				
Received in lab by		Alex Wallin Jr.	11/9/22	1520

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	**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

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pat-chem.com

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

Attention: Ric Vardel
Report Date: 23-Nov-22 14:01
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.# : 22K0427-01) Collected: 15-Nov-22 By GK of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AK21640	1	16-Nov-22	17-Nov-22	**1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AK21923	0.10	19-Nov-22	19-Nov-22	**<0.10 mg/l**	
Nitrate as N	EPA 353.2	AK21636	0.05	16-Nov-22	16-Nov-22	**0.56 mg/l**	
Nitrite as N	EPA 353.2	AK21636	0.05	16-Nov-22	16-Nov-22	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AK22123	0.20	21-Nov-22	23-Nov-22	**0.53 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 11/23/2022
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.#: 22K0427

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	11/15/22	12:10	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	7.5 / 4.4
	"	"	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
	"	"	1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	

RECEIVED
NOV 15 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: GK	Golan IPC	11/15/22	1225
Received by:	Cindy Martinez	11/15/22	1425
Relinquished by:	Cindy Martinez	11/15/22	2350
Received by:			
Relinquished by:			
Received in lab by:	Alex Wollum Jr. NOV	15 2022	1350

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

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 -$CuSO_4$

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(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: 22-Nov-22 15:51
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.# : 22K0479-01) Collected: 15-Nov-22 By MA of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AK21704	2	17-Nov-22	22-Nov-22	**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 11/22/2022
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.#: 22K0479

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly EFF - B	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Marie Aguirre / Ric Vardel / Golan Kfir	P.O. #:	
	Report Attention:	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	11/15/22	23:59	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	7.8/8.1-C
Geotracker EDD: Logcode: IPCI Global ID: WDR100000359									

RECEIVED
NOV 16 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Marie Aguirre (IPC)	11/16/22	12:11
Received by	Cindy Mathews	11-16-22	12:12
Relinquished by	Cindy Mathews	11-16-22	1325
Received by			
Relinquished by			
Received in lab by	Alex Wallace NOV 16 2022		1325

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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pat-chem.com

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

Attention: Ric Vardel
Report Date: 29-Nov-22 16:53
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.# : 22K0704-01) Collected: 22-Nov-22 By GK of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AK22922	1	29-Nov-22	29-Nov-22	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AK22930	0.10	29-Nov-22	29-Nov-22	**<0.10 mg/l**	
Nitrate as N	EPA 353.2	AK22310	0.25	23-Nov-22	23-Nov-22	**2.53 mg/l**	
Nitrite as N	EPA 353.2	AK22310	0.25	23-Nov-22	23-Nov-22	**<0.25 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AK22821	0.20	28-Nov-22	29-Nov-22	**1.00 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 11/29/2022
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.#: 22K0704

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly EFF - A	
Address: 9297 Research Drive		Sampled by: Golan Kfir	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	11/22/22	10:40	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	7.6/22.2-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
NOV 22 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by GK	Golan IPC	11/22/22	1230
Received by	Cindy Mathieu	11/22	1230
Relinquished by	Cindy Mathieu	11/22/22	14:55
Received by			
Relinquished by			
Received in lab by	Alex Walkowski	NOV 22 2022	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	**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
pat-chem.com

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

Attention: Ric Vardel
Report Date: 01-Dec-22 15:56
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.# : 22K0732-01) Collected: 22-Nov-22 By GK of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AK22504	2	25-Nov-22	30-Nov-22	**<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 12/1/2022
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.#: 22K0732

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly EFF - B	
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	11/23/22	23:59 ~~2345~~	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	7.4 / 7.5 °C

RECEIVED
NOV 23 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Golan IPC	11/23/22	1240
Received by	Cindy MAPTIMER	11/23/22	1240
Relinquished by	Cindy MAPTIMER	11/23/22	1455
Received by			
Relinquished by			
Received in lab by	Alex Walthall NOV	23 2022	1455

Sample Received Checklist

Temperature upon receipt: 4.6 °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	Preservations
Grab **Comp**	**AQ** - Water **SO** -Soil / Sludge **OT** - Other	**P** - Plastic **G** - Amber Glass **VOA** - 40 ml Vial **Coli** - bacteria	**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: 21-Dec-22 13:53
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.# : 22K0866-01) Collected: 29-Nov-22 By DH of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AK23026	1	30-Nov-22	30-Nov-22	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AL20531	0.10	05-Dec-22	05-Dec-22	**<0.10 mg/l**	
Nitrate as N	EPA 353.2	AK23029	0.50	30-Nov-22	30-Nov-22	**1.36 mg/l**	
Nitrite as N	EPA 353.2	AK23029	0.05	30-Nov-22	30-Nov-22	**<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 12/21/2022
Lab Director

December 21, 2022

Lab No. : SP 2219660
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 3 pages divided into 3 sections:

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(1 page)	: Results for each sample submitted.
Quality Control	(1 page)	: 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
22K0866-01	11/29/2022	12/09/2022	SP 2219660-001	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 351.2	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)

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

KD: MKH

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2022-12-21

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
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2500 Stagecoach Road
Stockton, CA 95215
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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

December 21, 2022

Pat-Chem Laboratories
Attn: Stephen Sakai
1824 1st St
San Fernando, CA 91340

Description : 22K0866-01
Project : 22K0866

Lab No. : SP 2219660-001
Customer No. : 2012670

Sampled On : November 29, 2022 at 11:40
Sampled By : Not Available
Received On : December 9, 2022 at 15:13
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
Nitrogen, Total Kjeldahl	0.9	0.5	mg/L		1	l	12/16/2022	10:11	sta	EPA 351.2	12/19/2022	23:10	lcr

DQF Flags Definition:
l The MS/MSD did not meet QC criteria.

ND=Non-Detected, RL=Reporting Level , Dil.=Dilution

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Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

December 21, 2022

Pat-Chem Laboratories

Lab No. : SP 2219660
Customer No. : 2012670

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
Nitrogen, Total Kjeldahl	351.2	12/16/2022:214116STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	89.7%	73-124	
			MS	mg/L	12.00	-240%	54-136	435
		(VI 2249305-001)	MSD	mg/L	12.00	-241%	54-136	435
			MSRPD	mg/L	12.00	2.0%	≤27	
			MS	mg/L	12.00	55.7%	54-136	
		(VI 2249305-002)	MSD	mg/L	12.00	62.1%	54-136	
			MSRPD	mg/L	12.00	11.0%	≤27	

Definition

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
ND : Non-detect - Result was below the DQO listed for the analyte.

Explanation

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

Page 3 of 3

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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

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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

SUBCONTRACT ORDER

Pat-Chem Laboratories

22K0866

2219660

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: 22K0866-01	WASTE **Water**	**Sampled:29-Nov-22 11:40**	[redacted]	**IPC - (MCC) Weekly EFF - A**
TKN 351.2	14-Dec-22 12:00	27-Dec-22 11:40		
Containers Supplied:				

Released By	Date	Received By	Date
DEC 09 2022			
Released By	Date	Received By	Date
1013		12/9/22	1513

Condition Upon Receipt (Attach to COC) SP 2219660

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** /_____/_____/_____/_____/_____/_____/_____

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? [Exception: Oil & Grease, VOA and CrVI verified in lab]	**Yes**	**No**	**N/A**	**FGL**
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 **Celina D. Arenas** Digitally signed by Celina D. Arenas Title: Sample Receiving Date: 12/10/2022-11:46:43

Discrepency Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
   Initiated By: _____ Date: _____
   Problem:

   Resolution:

2. Person Contacted: _____ Phone Number: _____
   Initiated By: _____ Date: _____
   Problem:

   Resolution:

(2012670)
Pat-Chem Laboratories
SP 2219660
CDA-12/10/2022-11:46:43

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.#: 22K0866

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 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	11/29/22	1140	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
NOV 29 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Huey	Daniel (IPC)	11/29/22	1220
Received by:	Juan Davis (IPCL)	11/29/22	12:29
Relinquished by	Juan Davis (IPCL)	11/29/22	14:21
Received by			
Relinquished by			
Received in lab by:	Alex NOV 29 2022		1421

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.

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: 07-Dec-22 09:08
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.# : 22K0879-01) Collected: 29-Nov-22 By MA of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AL20107	2	01-Dec-22	06-Dec-22	**<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 12/7/2022
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.#: 22K0879

Customer: IPC - Integrated Performance Consultants, Inc.		Project.: (MCC) Weekly EFF - B	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Mari 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	11/29/22	23:59	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	7.4 / 7.1 °C

RECEIVED
NOV 30 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Mari Aguirre GPC	11/30/22	11:16
Received by	Cindy Martinez	11/30/22	1140
Relinquished by	Cindy Martinez	11.30.22	13:15
Received by			
Relinquished by			
Received in lab by	Alex Walker NOV 30 2022		13:15

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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QUALITY ANALYTICAL SERVICES SINCE 1987

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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: 03-Jan-23 23:30
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.# : 22L0203-01) Collected: 06-Dec-22 By CA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AL20736	1	07-Dec-22	08-Dec-22	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AL20912	0.10	09-Dec-22	09-Dec-22	**<0.10 mg/l**	
Nitrate as N	EPA 353.2	AL20732	0.50	07-Dec-22	07-Dec-22	**3.16 mg/l**	
Nitrite as N	EPA 353.2	AL20732	0.05	07-Dec-22	07-Dec-22	**<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 1/3/2023
Lab Director

January 3, 2023

Lab No. : SP 2219701
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 3 pages divided into 3 sections:

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(1 page)	: Results for each sample submitted.
Quality Control	(1 page)	: 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
22L0203-01	12/06/2022	12/09/2022	SP 2219701-001	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 351.2	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)

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

KD: MKH

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2023-01-03

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853 Corporation Street
Santa Paula, CA 93060
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FAX: (209)942-0423
CA ELAP Certification No. 1563

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FAX: (530)343-3807
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San Luis Obispo, CA 93401
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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

January 3, 2023

Pat-Chem Laboratories
Attn: Stephen Sakai
1824 1st St
San Fernando, CA 91340

Description : 22L0203-01
Project : 22L0203

Lab No. : SP 2219701-001
Customer No. : 2012670

Sampled On : December 6, 2022 at 12:00
Sampled By : Not Available
Received On : December 9, 2022 at 15:13
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
Nitrogen, Total Kjeldahl	0.9	0.5	mg/L		1		12/23/2022	11:20	sta	EPA 351.2	12/28/2022	17:19	lcr

DQF Flags Definition:

ND=Non-Detected, RL=Reporting Level , Dil.=Dilution

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CA ELAP Certification No. 2810

January 3, 2023

Pat-Chem Laboratories

Lab No. : SP 2219701
Customer No. : 2012670

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
Nitrogen, Total Kjeldahl	351.2	12/23/2022:214392STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	87.9%	73-124	
			MS	mg/L	12.00	88.2%	54-136	
		(CC 2284613-008)	MSD	mg/L	12.00	85.7%	54-136	
			MSRPD	mg/L	12.00	2.9%	≤27	
			MS	mg/L	12.00	82.9%	54-136	
		(CC 2284613-009)	MSD	mg/L	12.00	81.6%	54-136	
			MSRPD	mg/L	12.00	1.3%	≤27	

Definition

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
ND : Non-detect - Result was below the DQO listed for the analyte.

Corporate Offices & Laboratory
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CA ELAP Certification No. 2670

Office & Laboratory
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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

SUBCONTRACT ORDER

Pat-Chem Laboratories

22L0203

2219701

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: 22L0203-01	WASTE **Water**	**Sampled:06-Dec-22 12:00**	[redacted]	**IPC - (MCC) Weekly EFF - A**
TKN 351.2	21-Dec-22 12:00	03-Jan-23 12:00		
Containers Supplied:				

Released By	Date	Received By	Date
	DEC 09 2022		
Released By	Date	Received By	Date
			12/9/22 1513

201 17

Condition Upon Receipt (Attach to COC) SP 2219701

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** /_____/_____/_____/_____/_____/_____/_____

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? [Exception: Oil & Grease, VOA and CrVI verified in lab]	**Yes**	**No**	**N/A**	**FGL**
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 **Celina D. Arenas** Digitally signed by Celina D. Arenas Title: Sample Receiving Date: 12/10/2022-11:57:07

Discrepency Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
   Initiated By: _____ Date: _____
   Problem:

   Resolution:

2. Person Contacted: _____ Phone Number: _____
   Initiated By: _____ Date: _____
   Problem:

   Resolution:

(2012670)
Pat-Chem Laboratories
SP 2219701
CDA-12/10/2022-11:57:07

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.#: 2260203

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	12/06/22	1200	1	TSS	Grab	AQ	1-Liter-Plastic	4°C	7.4/23.5-C
"	"	"	1	Ammonia, TKN	Grab	AQ	500ml Plastic	4°C	
			1	Nitrate, Nitrite	Grab	AQ	250ml Plastic	4°C	

RECEIVED
DEC 06 2022
By Alex Walla Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	12/06/22	1210
Received by		Cindy Mattinez	12.6.22	1225
Relinquished by		Cindy Martinez	12.6.22	2:15
Received by				
Relinquished by				
Received in lab by		Alex Walla Jr. DEC 06 2022		14:15

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: 19-Dec-22 12:58
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.# : 22L0264-01) Collected: 06-Dec-22 By MA of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AL20817	2	08-Dec-22	13-Dec-22	**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 12/19/2022
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.#: 2220264

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	12/6/22	23:59	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	7.6 / 6.7 °C
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
DEC 07 2022
By

	Signature	Print Name (Company)	Date	Time
Relinquished by		Mario Aguirre (IPC)	12/7/22	11:32
Received by			12/7/22	1132
Relinquished by			12-7-22	1300
Received by				
Relinquished by				
Received in lab by		Alex Walker DEC 07 2022		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 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-Jan-23 17:26
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.# : 22L0465-01) Collected: 13-Dec-22 By KV of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AL21432	1	14-Dec-22	14-Dec-22	**1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AL22020	0.10	20-Dec-22	11-Jan-23	**<0.10 mg/l**	
Nitrate as N	EPA 353.2	AL21509	0.05	15-Dec-22	19-Dec-22	**0.97 mg/l**	
Nitrite as N	EPA 353.2	AL21509	0.05	15-Dec-22	19-Dec-22	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AA30922	0.20	09-Jan-23	10-Jan-23	**0.70 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

January 10, 2023

Lab No. : **SP 2219922**
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 3 pages divided into 3 sections:

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(1 page)	: Results for each sample submitted.
Quality Control	(1 page)	: 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
22L0465-01	12/13/2022	12/14/2022	SP 2219922-001	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 351.2	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)

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

KD: MKH

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2023-01-10

Corporate Offices & Laboratory
853 Corporation Street
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Stockton, CA 95215
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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

January 10, 2023

Pat-Chem Laboratories
Attn: Stephen Sakai
1824 1st St
San Fernando, CA 91340

Description : 22L0465-01
Project : 22L0465

Lab No. : SP 2219922-001
Customer No. : 2012670

Sampled On : December 13, 2022 at 11:00
Sampled By : N/A
Received On : December 14, 2022 at 13:13
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
Nitrogen, Total Kjeldahl	0.7	0.5	mg/L		1		12/30/2022	12:20	sta	EPA 351.2	01/04/2023	20:16	lcr

DQF Flags Definition:

ND=Non-Detected, RL=Reporting Level , Dil.=Dilution

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January 10, 2023

Pat-Chem Laboratories

Lab No. : SP 2219922
Customer No. : 2012670

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
Nitrogen, Total Kjeldahl	351.2	12/30/2022:214644STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	90.5%	73-124	
			MS	mg/L	12.00	97.9%	54-136	
		(SP 2219890-001)	MSD	mg/L	12.00	78.5%	54-136	
			MSRPD	mg/L	12.00	21.9%	≤27	
			MS	mg/L	12.00	91.7%	54-136	
		(SP 2219892-001)	MSD	mg/L	12.00	88.0%	54-136	
			MSRPD	mg/L	12.00	3.2%	≤27	

Definition

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
ND : Non-detect - Result was below the DQO listed for the analyte.

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CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
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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

SUBCONTRACT ORDER

Pat-Chem Laboratories

22L0465 22L0465

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: 22L0465-01	WASTE Water	**Sampled: 13-Dec-22 11:00**	[redacted]	**IPC - (MCC) Weekly EFF - A**
TKN 351.2	28-Dec-22 12:00	10-Jan-23 11:00		
Containers Supplied:				

Released By	Date	Received By	Date
	DEC 14 2022	DA	12/14/22 13:13
Released By	Date	Received By	Date

Condition Upon Receipt (Attach to COC) SP 2219922

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** / **12** / _____ / _____ / _____ / _____ / _____
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: 12/16/2022-16:58:33

Discrepency Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
   Initiated By: _____ Date: _____
   Problem:

   Resolution:

2. Person Contacted: _____ Phone Number: _____
   Initiated By: _____ Date: _____
   Problem:

   Resolution:

(2012670)
Pat-Chem Laboratories
SP 2219922
DA0-12/16/2022-16:58:33

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.#: 22L0465

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC)** Weekly **EFF - A**
Address:	9297 Research Drive Irvine CA 92618	Sampled by:	Kyle Vardel
		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	12/13/22	1100	1	TSS, Nitrate, Nitrite	Grab	AQ	1-Liter-Plastic	4°C	7.67/21.3c
	"	1100	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
DEC 13 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Kyle Vardel (IPC)	12/13/22	1110
Received by	MARIO SANTIESTEBAN (PCL)	12/13/22	1600
Relinquished by	MARIO SANTIESTEBAN (PCL)	12/13/22	1825
Received by			
Relinquished by			
Received in lab by	Alex Wardlaw DEC	13 2022	1825

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: 03-Jan-23 10:12
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.# : 22L0506-01) Collected: 13-Dec-22 By MA of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AL21605	2	16-Dec-22	21-Dec-22	**<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 1/3/2023
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.#: 2220506

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly EFF - B	
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	12/13/22	23:59	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	

RECEIVED
DEC 14 2022
By Alex Walker Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	12/14/22	11:32
Received by	SANTIESTEBAN (PCL)	12/14/22	1140
Relinquished by	MARIO SANTIESTEBAN (PCL)	12/14/22	1520
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr. DEC	14 2022	1520

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

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
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

PAT-CHEM
LABORATORIES

QUALITY ANALYTICAL SERVICES SINCE 1987

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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: 30-Dec-22 14:40
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.# : 22L0695-01) Collected: 20-Dec-22 By CA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AL22139	1	21-Dec-22	22-Dec-22	**<1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AL22131	0.10	21-Dec-22	27-Dec-22	**0.34 mg/l**	
Nitrate as N	EPA 353.2	AL22305	0.10	23-Dec-22	23-Dec-22	**1.46 mg/l**	
Nitrite as N	EPA 353.2	AL22305	0.05	23-Dec-22	23-Dec-22	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AL22905	0.20	29-Dec-22	30-Dec-22	**0.83 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 12/30/2022
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.#: 2210695

Customer:	IPC - Integrated Performance Consultants, Inc.	Project :	**(MCC)** Weekly **EFF - A**
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	12/20/22	1115	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
DEC 20 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (SEC)	12/20/22	1125
Received by		MARIO SANTIESTEBAN (PCL)	12/20/22	1255
Relinquished by		MARIO SANTIESTEBAN (PCL)	12/20/22	1445
Received by				
Relinquished by				
Received in lab by		Alex Valle Jr. DEC 20 2022		1445

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

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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: 03-Jan-23 10:20
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.# : 22L0729-01) Collected: 20-Dec-22 By DH of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AL22209	2	22-Dec-22	27-Dec-22	**<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 1/3/2023
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.#: 2210729

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	12/20/22	2359	1	Biochemical Oxygen Demand (BOD)	Comp	AQ	1-Liter-Plastic	4°C	

RECEIVED
DEC 21 2022
By Alex Walker Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Huey	Daniel (IPC)	12/21/22	1115
Received by: Richard M.	Richard M. (PCL)	12/21/22	1530
Relinquished by: Richard M.	Richard M. (PCL)	12/21/22	1450
Received by:			
Relinquished by:			
Received in lab by: Alex Walker Jr.	Alex Walker DEC	21 2022	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	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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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-Jan-23 17:28
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.# : 22L0837-01) Collected: 27-Dec-22 By DH of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AL22919	1	29-Dec-22	30-Dec-22	**1 mg/l**	
Inorganic Constituents							
Ammonia as N	EPA 350.1	AL22911	0.10	29-Dec-22	29-Dec-22	**<0.10 mg/l**	
Nitrate as N	EPA 353.2	AL22828	0.05	28-Dec-22	28-Dec-22	**0.74 mg/l**	
Nitrite as N	EPA 353.2	AL22828	0.05	28-Dec-22	28-Dec-22	**<0.05 mg/l**	
Total Kjeldahl Nitrogen	EPA 351.2	AA30923	0.20	09-Jan-23	11-Jan-23	**0.23 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.#: 22L0837

Customer: IPC - Integrated Performance Consultants, Inc.		Project : **(MCC)** Weekly **EFF - A**	
Address: 9297 Research Drive		Sampled by: Daniel Hwy	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	12/27/22	1135	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
DEC 27 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by: Daniel Hwy	Daniel (IPC)	12/27/22	1220
Received by:	MARIO SANTIESTEBAN (PCL)	12/27/22	1320
Relinquished by:	MARIO SANTIESTEBAN (PCL)	12/27/22	1515
Received by:			
Relinquished by:			
Received in lab by: Alex Walla Jr.	Alex Walla Jr. DEC 27 2022		1515

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

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	

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-Jan-23 15:56
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.# : 22L0923-01) Collected: 29-Dec-22 By ET of IPC							
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AA30104	2	01-Jan-23	06-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 1/6/2023
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.#: 2240923

(MCC) Weekly ~~INF~~ EFF B

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :**	
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~~			1	TSS	Comp	AQ	1-Liter Plastic	4°C	
EFF (B)	12/29/22	23:59	1	BOD	Comp	AQ	1-Liter Plastic	4°C	

RECEIVED
DEC 30 2022
By Alex Walker Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	12/30/22	11:07am
Received by	Juan Deniz (PLC)	12/30/22	13:00
Relinquished by	Juan D. (PLC)	12/30/22	14:42
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr.	DEC 30 2022	1442

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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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-Oct-22 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.# : 22J0109-01) Collected: 04-Oct-22 By EM of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AJ20615	1	06-Oct-22	07-Oct-22	**277 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AJ20611	2	06-Oct-22	11-Oct-22	**371 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 10/11/2022
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.#: 22J0109

Customer: IPC - Integrated Performance Consultants, Inc.

Project : (MCC) Weekly INF

Address: 9297 Research Drive, Irvine, CA 92618

Sampled by: emerry

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	10-4-22	2359	1	TSS	Comp	AQ	1-Liter Plastic	4°C	6.89 / 10.0
			1	BOD	Comp	AQ	1-Liter Plastic	4°C	

RECEIVED
OCT 05 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by	emerry	E. Morris	10-5-22	1030
Received by		Cindy Martinez	10-5-22	1145
Relinquished by		Cindy Martinez	10-5-22	1255
Received by				
Relinquished by				
Received in lab by		Alex Lichtman (ACI)	OCT 05 2022	1255

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
C 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

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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: 19-Oct-22 12:16
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 22J0278-01) Collected: 11-Oct-22 By EM of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AJ21311	1	13-Oct-22	14-Oct-22	**307 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AJ21309	2	13-Oct-22	18-Oct-22	**263 mg/l**	B-02

Notes and Definitions

B-02 The sample dilutions set up for the BOD analysis failed to met the criteria of a residual dissolved oxygen of at least 1 mg/l. Therefore the reported result is an estimated value only.

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

Respectfully Submitted,

Stephen Sakai 10/19/2022
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.#: 2210278

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) ~~Weekly INF~~	
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
INF	10/11/22	2359	1	TSS	Comp	AQ	1-Liter Plastic	4°C	6.8/8 - 5°C
			1	BOD	Comp	AQ	1-Liter Plastic	4°C	

RECEIVED
OCT 12 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		E. Morris	10/12/22	1147
Received by		Cindy Martinez	10.12.22	13:00
Relinquished by		Cindy Martinez	10-12-22	1430
Received by				
Relinquished by				
Received in lab by		Alex Walton OCT 12 2022		1430

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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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: 26-Oct-22 13:17
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 22J0451-01) Collected: 18-Oct-22 By EM of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AJ22003	1	20-Oct-22	20-Oct-22	**268 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AJ22008	2	20-Oct-22	25-Oct-22	**362 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 10/26/2022
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.#: 22J0451

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly INF	
Address: 9297 Research Drive, Irvine, CA 92618		Sampled by: 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	10-18-22	2359	1	TSS	Comp	AQ	1-Liter Plastic	4°C	6.8 / 10.2
			1	BOD	Comp	AQ	1-Liter Plastic	4°C	

RECEIVED
OCT 19 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MORRIS	10-19-22	0936
Received by	Cindy MARTIN	10-19-22	1153
Relinquished by	Cindy MARTIN	10-19-22	1347
Received by			
Relinquished by			
Received in lab by	Alex Walka Jr.	OCT 19 2022	1347

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

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	

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: 01-Nov-22 15:43
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 22J0576-01) Collected: 25-Oct-22 By CA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AJ22709	1	27-Oct-22	28-Oct-22	**297 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AJ22706	2	27-Oct-22	01-Nov-22	**450 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 11/1/2022
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.#: 22J0576

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly INF	
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
INF	10/25/22	2359	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
			1	BOD	Comp	AQ	1-Liter Plastic	4°C	6.8/10.2 - C
1	1	1							

RECEIVED
OCT 26 2022
By Alex Wallin Jr.

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Carlos Alvarez (IPC)	10/25/22	1130
Received by		Cindy MARTINEZ	10/26/22	1230
Relinquished by		Cindy Martinez	10/26/22	1335
Received by				
Relinquished by				
Received in lab by		Alex Wallin Jr.	OCT 26 2022	1335

Sample Received Checklist 4C

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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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-Nov-22 19:01
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 22K0091-01) Collected: 01-Nov-22 By JA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AK20310	1	03-Nov-22	04-Nov-22	**259 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AK20307	2	03-Nov-22	08-Nov-22	**232 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 11/8/2022
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.#: 22K0091

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly INF	
Address: 9297 Research Drive, Irvine, CA 92618		Sampled by: Jesus Andres / 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	11/01/22 ~~11/02/22~~ JAA	0:00	1	TSS	Comp	AQ	1-Liter Plastic	4°C	7.0 8.6°C
"	"	"	1	BOD	Comp	AQ	1-Liter Plastic	4°C	

RECEIVED
NOV 0 2 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by: Jesus Andres	Jesus Andres (IPC)	11/02/22	11:45
Received by:	Cindy Martinez	11.2.22	1235
Relinquished by:	Cindy Martinez	11.2.22	14:00
Received by:			
Relinquished by:			
Received in lab by:	Alex Wallin	NOV 0 2 2022	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
AI - $AlCl_3$
Cu - $CuSO_4$

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

PAT-CHEM
LABORATORIES

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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: 16-Nov-22 15:25
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 22K0290-01) Collected: 08-Nov-22 By DH of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AK21422	1	14-Nov-22	14-Nov-22	**231 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AK21112	2	11-Nov-22	16-Nov-22	**230 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 11/16/2022
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.#: 22K0290

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	P.O. #:
		Report Attention:	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	11/8/22	2359	1	TSS	Comp	AQ	1-Liter Plastic	4°C	7.4/6.6
"	"	"	1	BOD	Comp	AQ	1-Liter Plastic	4°C	

RECEIVED
11-9-22
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by:	Daniel (IPC)	11/9/22	1200
Received by:	Cindy MAMmm	11-9-22	13:15
Relinquished by:	Cindy MAMmm	11-9-22	1500
Received by:			
Relinquished by:			
Received in lab by:	Alex Hall Jr.	11-9-22	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	**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

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: 22-Nov-22 15:50
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 22K0484-01) Collected: 15-Nov-22 By MA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AK21708	1	17-Nov-22	18-Nov-22	**246 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AK21704	2	17-Nov-22	22-Nov-22	**418 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 11/22/2022
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.#: 22K0484

Customer: IPC - Integrated Performance Consultants, Inc.		**Project :** (MCC) Weekly INF	
Address: 9297 Research Drive, Irvine, CA 92618	**Sampled by:** Mario Aguirre / Eric Vardel / Golan Kfir	**P.O. #:**	
	Report Attention:	**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	11/15/22	23:59	1	TSS	Comp	AQ	1-Liter Plastic	4°C	7.2 / 9.2 °C
"	"	"	1	BOD	Comp	AQ	1-Liter Plastic	4°C	

RECEIVED
NOV 16 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

	Signature	Print Name (Company)	Date	Time
Relinquished by		Mario Aguirre (IPC)	11/16/22	12:11
Received by		Cindy Martinez	11/16/22	12:11
Relinquished by		Cindy Martinez	11.16.22	1325
Received by				
Relinquished by				
Received by		Alex Wadsworth NOV 16 2022		1325

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

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: 01-Dec-22 15:54
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 22K0733-01) Collected: 22-Nov-22 By CA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AK22922	1	29-Nov-22	29-Nov-22	**302 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AK22504	2	25-Nov-22	30-Nov-22	**360 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 12/1/2022
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.#: 22K0733

Customer: IPC - Integrated Performance Consultants, Inc.		Project : ~~(MCC) Weekly INF~~	
Address: 9297 Research Drive Irvine CA 92618		Sampled by: Carlos Alvarez / ~~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	11/22/22	2359	1	TSS	Comp	AQ	1-Liter Plastic	4°C	7.3/8.4-C
			1	BOD	Comp	AQ	1-Liter Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
NOV 23 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Carlos Alvarez (IPC)	11/23/22	1240
Received by	Cindy MARTINEZ	11/23	1240
Relinquished by	Cindy MARTINEZ	11/23/22	1455
Received by			
Relinquished by			
Received in lab by	Alex Walthall NOV 23 2022		1455

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

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	

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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-Dec-22 09:07
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 22K0880-01) Collected: 29-Nov-22 By MA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AL20105	1	01-Dec-22	01-Dec-22	**127 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AL20107	2	01-Dec-22	06-Dec-22	**401 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 12/7/2022
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.#: 22K0880

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) ~~Weekly~~ INF	
Address: 9297 Research Drive, Irvine, CA 92618	Sampled by: Mario Aguirre / Ric Vardel / Golan Kfir	P.O. #:	
	Report Attention:	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	11/29/22	23:59	1	TSS	Comp	AQ	1-Liter Plastic	4°C	7.3/7.3-C
"	"	"	1	BOD	Comp	AQ	1-Liter Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
NOV 30 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	11/30/22	11:16
Received by	Cindy Mahner	11.30.22	1140
Relinquished by	Cindy Mahner	11.30.22	13:15
Received by			
Relinquished by			
Received in lab by	Alex Walker Jr.	NOV 30 2022	1315

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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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-Dec-22 13:00
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 22L0267-01) Collected: 06-Dec-22 By MA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AL20806	1	08-Dec-22	08-Dec-22	**196 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AL20817	2	08-Dec-22	13-Dec-22	**439 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 12/19/2022
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.#: 2260267

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Weekly INF	
Address: 9297 Research Drive, Irvine, CA 92618	Sampled by: Marie Aguirre	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	12/6/22	23:59	1	TSS	Comp	AQ	1-Liter Plastic	4°C	7.0 / 7.1 · C
"	"	"	1	BOD	Comp	AQ	1-Liter Plastic	4°C	
Geotracker EDD:									
Logcode: IPCI									
Global ID: WDR100000359									

RECEIVED
DEC 07 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Marie Aguirre (IPC)	12/7/22	11:32
Received by	Cindy M	12-7-22	1132
Relinquished by	Cindy M	12-7-22	1305
Received by			
Relinquished by			
Received in lab by	Alex Walton DEC	07 2022	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.

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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: 03-Jan-23 10:14
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 22L0507-01) Collected: 13-Dec-22 By MA of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AL21513	1	15-Dec-22	16-Dec-22	**214 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AL21605	2	16-Dec-22	21-Dec-22	**310 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 1/3/2023
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.#: 2220507

Customer: IPC - Integrated Performance Consultants, Inc.		Project: (MCC) Weekly INF	
Address: 9297 Research Drive Irvine CA 92618	Sampled by: Maric Aguirre Report Attention: Ric Vardel / Golan Kfir	P.O. #: 949-382-9067 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	12/13/22	23:59	1	TSS	Comp	AQ	1-Liter Plastic	4°C	
11	11	11	1	BOD	Comp	AQ	1-Liter Plastic	4°C	

RECEIVED
DEC 14 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Maric Aguirre (IPC)	12/14/22	11:38
Received by	MARIO SANTIESTEBAN (PCL)	12/14/22	1140
Relinquished by	MARIO SANTIESTEBAN (PCL)	12/14/22	1520
Received by			
Relinquished by			
Received in lab by	Alex Horbatch DEC 14 2022		1520

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	Preservations
Grab **Comp**	**AQ** - Water **SO** -Soil / Sludge **OT** - Other	**P** - Plastic **G** - Amber Glass **VOA** - 40 ml Vial **Coli** - bacteria	**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: 06-Jan-23 15:57
Subject: (MCC) Weekly INF

Project/P.O.#: (MCC) Weekly INF

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
INF (Sample I.D.# : 22L0924-01) Collected: 29-Dec-22 By ET of IPC							
Physical Properties							
Total Suspended Solids	SM2540D	AA30331	1	03-Jan-23	04-Jan-23	**235 mg/l**	
Aggregate Organic Constituents							
Biochemical Oxygen Demand	SM 5210B	AA30104	2	01-Jan-23	06-Jan-23	**270 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 1/6/2023
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.#: 22L0924

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	~~12/30~~ 29 ET 12/22	~~10:41am~~ 23:59 ET	1	TSS	Comp	AQ	1-Liter Plastic	~~4°C~~	
INF	~~12/30~~ 29 ET 12/22	~~10:41am~~ 23:59 ET	1	BOD	Comp	AQ	1-Liter Plastic	4°C	

RECEIVED
DEC 30 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Ervin Tucker (IPC)	12/30/22	11:07am
Received by	Juan Nevis (IPC)	12/30/22	13:06
Relinquished by	Juan D. (IPC)	12/30/22	14:42
Received by			
Relinquished by			
Received in lab by	Alex Wachuth DEC 30 2022		1442

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: 28-Oct-22 15:10
Subject: (MCC) Monthly EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22J0421-01) Collected: 18-Oct-22 By EM of IPC							
Physical Properties							
Total Dissolved Solids	SM 2540C	AJ21931	5	19-Oct-22	20-Oct-22	**912 mg/l**	
Inorganic Constituents							
Chloride	EPA 300.0	AJ21937	20.0	19-Oct-22	19-Oct-22	**214 mg/l**	
Sulfate as SO4	EPA 300.0	AJ21937	10.0	19-Oct-22	19-Oct-22	**270 mg/l**	
Boron	EPA 200.7	AJ21929	0.10	20-Oct-22	20-Oct-22	**0.28 mg/l**	
Phosphorus, Total as P	EPA 365.3	AJ22703	0.10	27-Oct-22	28-Oct-22	**0.14 mg/l**	
Aggregate Organic Constituents							
MBAS	SM 5540 C	AJ21933	0.20	19-Oct-22	19-Oct-22	**<0.20 mg/l**	
Oil & Grease (HEM)	EPA 1664A	AJ22533	5	25-Oct-22	27-Oct-22	**<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 10/28/2022
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.#: 22J0421

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Monthly - EFF	
Address: 9297 Research Drive		Sampled by: Ric Vardel / Golan Kfir	P.O. #:
Irvine	CA 92618	Report Attention:	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	10/18/22	1035	1	SO4,Cl,TDS	Grab	AQ	1/2gal Plastic	4°C	7.4 / 21.8 °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	

RECEIVED
OCT 18 2022
By

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	E. MURPHY	10/18/22	1140
Received by	Cindy Martinez	10-18-22	1247
Relinquished by	Cindy Martinez	10-18-22	1400
Received by			
Relinquished by			
Received in lab by	Alex Walkuski	OCT 18 2022	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	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: 14-Nov-22 12:06
Subject: (MCC) Monthly EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22K0114-01) Collected: 03-Nov-22 By JW of IPC							
Physical Properties							
Total Dissolved Solids	SM 2540C	AK20933	5	09-Nov-22	11-Nov-22	**904 mg/l**	
Inorganic Constituents							
Chloride	EPA 300.0	AK20830	20.0	08-Nov-22	11-Nov-22	**201 mg/l**	
Surrogate: Dichloroacetate	EPA 300.0	AK20830		08-Nov-22	11-Nov-22		
Sulfate as SO4	EPA 300.0	AK20830	10.0	08-Nov-22	11-Nov-22	**262 mg/l**	
Surrogate: Dichloroacetate	EPA 300.0	AK20830		08-Nov-22	11-Nov-22		
Boron	EPA 200.7	AK20408	0.10	04-Nov-22	08-Nov-22	**0.25 mg/l**	
Phosphorus, Total as P	EPA 365.3	AK20114	0.10	04-Nov-22	05-Nov-22	**<0.10 mg/l**	
Aggregate Organic Constituents							
MBAS	SM 5540 C	AK20415	0.20	04-Nov-22	04-Nov-22	**<0.20 mg/l**	
Oil & Grease (HEM)	EPA 1664A	AK21006	5	10-Nov-22	11-Nov-22	**<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 11/14/2022
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.#: 2210114

Customer: IPC - Integrated Performance Consultants, Inc.		Project : **(MCC) Monthly - 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	11/3/22	10:30	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	7.51 18.1°C

RECEIVED
NOV 03 2022
BY

Geotracker EDD:
Logcode: IPCI
Global ID: WDR100000359

Signature	Print Name (Company)	Date	Time
Relinquished by	Jonathan Wu (IPC)	11/3/22	10:50
Received by	Cindy M	11.3.22	1251
Relinquished by	Edwin Gonzalez	11.3	15:00
Received by			
Relinquished by			
Received in lab by	Alex Hamilton	NOV 03 2022	1560

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: 03-Jan-23 13:28
Subject: (MCC) Monthly EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22L0552-01) Collected: 15-Dec-22 By M.A. of IPC							
Physical Properties							
Total Dissolved Solids	SM 2540C	AL22129	5	21-Dec-22	22-Dec-22	**700 mg/l**	
Inorganic Constituents							
Chloride	EPA 300.0	AL22719	20.0	27-Dec-22	28-Dec-22	**170 mg/l**	
Sulfate as SO4	EPA 300.0	AL22719	10.0	27-Dec-22	28-Dec-22	**159 mg/l**	
Boron	EPA 200.7	AL22024	0.10	20-Dec-22	23-Dec-22	**0.52 mg/l**	
Phosphorus, Total as P	EPA 365.3	AL22027	0.10	20-Dec-22	22-Dec-22	**0.11 mg/l**	
Aggregate Organic Constituents							
MBAS	SM 5540 C	AL21604	0.20	16-Dec-22	19-Dec-22	**<0.20 mg/l**	
Oil & Grease (HEM)	EPA 1664A	AA30321	5	03-Jan-23	03-Jan-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 1/3/2023
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.#: 2210552

Customer: IPC - Integrated Performance Consultants, Inc.		Project : (MCC) Monthly - EFF	
Address: 9297 Research Drive		Sampled by: Marie 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	12/15/22	11:29	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
DEC 15 2022
By Alex Walkowski Jr.

Signature	Print Name (Company)	Date	Time
Relinquished by	Marie Aguirre (IPC)	12/15/22	11:46
Received by	MARIO SANTIESTEBAN (PCL)	12/15/22	1323
Relinquished by	MARIO SANTIESTEBAN (PCL)	12/15/22	1545
Received by			
Relinquished by			
Received in lab by	Alex Walkowski DEC	15 2022	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	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: 03-Jan-23 23:19
Subject: (MCC) Quarterly EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22K0124-01) Collected: 03-Nov-22 By MA of IPC							
Physical Properties							
Total Alkalinity	SM 2320B	AK20405	1	04-Nov-22	04-Nov-22	**202 mg/l**	
Carbonate Alkalinity	SM 2320B	AK20405	1	04-Nov-22	04-Nov-22	**<1 mg/l**	
Bicarbonate Alkalinity	SM 2320B	AK20405	1	04-Nov-22	04-Nov-22	**202 mg/l**	
Hydroxide Alkalinity	SM 2320B	AK20405	1	04-Nov-22	04-Nov-22	**<1 mg/l**	
Color	SM 2120 C	AK20423	5.0	04-Nov-22	04-Nov-22	**25.9 CU**	
Specific Conductance (EC)	SM 2510B	AK21107	0.1	11-Nov-22	11-Nov-22	**1580 uS/cm**	
Odor	SM 2150B	AK20419	1	04-Nov-22	04-Nov-22	**<1 T.O.N.**	
Temperature	SM 2550	AK20734		03-Nov-22	03-Nov-22	**65 °F**	
Inorganic Constituents							
Silver	EPA 200.8	AK20410	0.2	04-Nov-22	10-Nov-22	**<0.2 ug/l**	
Aluminum	EPA 200.8	AK20410	5.0	04-Nov-22	10-Nov-22	**53 ug/l**	
Fluoride	EPA 300.0	AK20830	0.50	08-Nov-22	11-Nov-22	**1.42 mg/l**	
Arsenic	EPA 200.8	AK20410	0.2	04-Nov-22	10-Nov-22	**0.8 ug/l**	
Barium	EPA 200.8	AK20410	0.5	04-Nov-22	10-Nov-22	**59 ug/l**	
Beryllium	EPA 200.8	AK20410	0.2	04-Nov-22	10-Nov-22	**<0.2 ug/l**	
Calcium	EPA 200.7	AK20409	0.10	04-Nov-22	07-Nov-22	**69.4 mg/l**	
Cadmium	EPA 200.8	AK20410	0.2	04-Nov-22	10-Nov-22	**<0.2 ug/l**	
Chromium - Total	EPA 200.8	AK20410	0.2	04-Nov-22	10-Nov-22	**4.1 ug/l**	
Copper	EPA 200.8	AK20410	0.2	04-Nov-22	10-Nov-22	**1.0 ug/l**	
Cyanide (total)	SM 4500-CN-E	AK21116	0.010	11-Nov-22	11-Nov-22	**<0.010 mg/l**	
Iron	EPA 200.7	AK20409	0.02	04-Nov-22	07-Nov-22	**0.04 mg/l**	
Mercury	EPA 245.1	AK20514	0.50	05-Nov-22	05-Nov-22	**<0.50 ug/l**	
Magnesium	EPA 200.7	AK20409	0.10	04-Nov-22	07-Nov-22	**28.5 mg/l**	
Manganese	EPA 200.8	AK20410	0.5	04-Nov-22	10-Nov-22	**7.5 ug/l**	
Nickel	EPA 200.8	AK20410	0.5	04-Nov-22	10-Nov-22	**4.9 ug/l**	
Lead	EPA 200.8	AK20410	0.2	04-Nov-22	10-Nov-22	**0.2 ug/l**	

Respectfully Submitted,

Stephen Sakai 1/3/2023
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-Jan-23 23:19
Subject: (MCC) Quarterly EFF

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

Parameter	Method	QC Batch	RL	Prepared	Analyzed	Result	Notes
EFF (Sample I.D.# : 22K0124-01) Collected: 03-Nov-22 By MA of IPC							
Inorganic Constituents							
pH	SM 4500H-B	AK20734	0.1	03-Nov-22	03-Nov-22	**7.8 pH Units**	A-01
Antimony	EPA 200.8	AK20410	1.0	04-Nov-22	10-Nov-22	**1.6 ug/l**	
Selenium	EPA 200.8	AK20410	2.0	04-Nov-22	10-Nov-22	**<2.0 ug/l**	
Thallium	EPA 200.8	AK20410	1.0	04-Nov-22	10-Nov-22	**<1.0 ug/l**	
Uranium	EPA 200.8	AK20410	0.7	04-Nov-22	10-Nov-22	**1.9 pCi/L**	
Zinc	EPA 200.8	AK20410	1.0	04-Nov-22	10-Nov-22	**23 ug/l**	
Aggregate Organic Constituents							
MBAS	SM 5540 C	AK20415	0.20	04-Nov-22	04-Nov-22	**0.57 mg/l**	
Disinfection Byproducts							
Bromate	EPA 300.1	AK20820	10.0	08-Nov-22	10-Nov-22	**<10.0 ug/l**	
Surrogate: Dichloroacetate	EPA 300.1	AK20820		08-Nov-22	10-Nov-22		
Chlorite	EPA 300.1	AK20820	20.0	08-Nov-22	10-Nov-22	**26.9 ug/l**	
Surrogate: Dichloroacetate	EPA 300.1	AK20820		08-Nov-22	10-Nov-22		

Notes and Definitions

A-01 Langelier Index = -0.20 (Slightly Corrosive)

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

Respectfully Submitted,

Stephen Sakai 1/3/2023
Lab Director

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: 322222219
Customer ID: PTCM42
Customer PO:
Project ID:

Attn: Steve Berentsen
Pat Chem Laboratories
1824 1st St
San Fernando, CA 91340

Phone: (805) 532-0012
Fax:
Received: 11/04/2022
Analyzed: 11/12/2022

Proj: 22K0124

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)		
22K0124-01 322222219-0001	11/4/2022 02:55 PM	30	1288	0.2193	≥ 0.5 µm	None Detected	ND	0.20	<0.20	0.00 - 0.72
					> 10 µm only	None Detected	ND	0.20	<0.20	0.00 - 0.72

Collection Date/Time: *11/03/2022 11:15 AM*

Analyst(s)
Sherrie Ahmad (1)

Jerry Drapala Ph.D, Laboratory Manager
or Other Approved Signatory

Any questions please contact Jerry Drapala.

Initial report from: 11/17/2022 06:44:31

Samples analyzed by LA Testing South Pasadena, CA CA ELAP 2283

WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Work Orders:	2K04024
Project:	22K0124
Attn:	Stephen Berentsen
Client:	Pat-Chem Laboratories, Inc. 1824 1st Street San Fernando, CA 91340

Report Date:	12/09/2022
Received Date:	11/4/2022
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 • HW-DOH #4047 • ISO17025 ANAB #L2457.01 • LACSD #10143 • NELAP-OR #4047

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

Dear Stephen Berentsen,

Enclosed are the results of analyses for samples received 11/04/22 with the Chain-of-Custody document. The samples were received in good condition, at 5.8 °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:

Tiffany T. Felix For Rahul R. Nair
Project Manager

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: 22K0124

Project Manager: Stephen Berentsen

Reported:
12/09/2022 16:10

Case Narrative

Per Theresa, proceed and qualify with analysis if samples are recevied out of compliance.

Sample Summary

Sample Name	Sampled By	Lab ID	Matrix	Sampled	Qualifiers
22K0124-01	Client	2K04024-01	Water	11/03/22 11:15	

Analyses Accreditation Summary

Analyte	CAS #	Not By NELAP	ANAB ISO 17025
EPA 8321A in Water			
3-Hydroxycarbofuran	16655-82-6	✓	
Aldicarb	116-06-3	✓	
Aldicarb sulfone	1646-88-4	✓	
Aldicarb sulfoxide	1646-87-3	✓	
Propoxur (Baygon)	114-26-1	✓	
Carbaryl	63-25-2	✓	
Carbofuran	1563-66-2	✓	
Methiocarb	2032-65-7	✓	
Methomyl	16752-77-5	✓	
Oxamyl	23135-22-0	✓	

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

Project Number: 22K0124

Project Manager: Stephen Berentsen

Reported:
12/09/2022 16:10

Sample Results

Sample: 22K0124-01
2K04024-01 (Water)

Sampled: 11/03/22 11:15 by Client

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Acids Herbicides by GC/ECD						
Method: EPA 515.4		**Instr:** GC08				
Batch ID: W2K0842 **Preparation:** EPA 515.4/Micro Ext. Drtz		**Prepared:** 11/10/22 08:34				**Analyst:** rjg
2,4,5-T	ND	0.20	ug/l	1	11/16/22	U-01
2,4,5-TP (Silvex)	ND	0.20	ug/l	1	11/16/22	U-01
2,4-D	ND	0.40	ug/l	1	11/16/22	U-01
2,4-DB	ND	2.0	ug/l	1	11/16/22	U-01
3,5-Dichlorobenzoic acid	ND	1.0	ug/l	1	11/16/22	U-01
Acifluorfen	ND	0.40	ug/l	1	11/16/22	U-01
Bentazon	ND	2.0	ug/l	1	11/16/22	U-01
Dalapon	ND	0.40	ug/l	1	11/16/22	U-01
DCPA	ND	0.10	ug/l	1	11/16/22	U-01
Dicamba	ND	0.60	ug/l	1	11/16/22	U-01
Dichloroprop	ND	0.30	ug/l	1	11/16/22	U-01
Dinoseb	ND	0.40	ug/l	1	11/16/22	U-01
Pentachlorophenol	ND	0.20	ug/l	1	11/16/22	U-01
Picloram	ND	0.60	ug/l	1	11/16/22	U-01
Surrogate(s)						
2,4-DCAA	*103%*	*Conc: 10.3*	*70-130*		*11/16/22*	
Chlorinated Pesticides and/or PCBs by GC/ECD						
Method: EPA 508.1		**Instr:** GC08				
Batch ID: W2K1072 **Preparation:** EPA 508.1/SPE		**Prepared:** 11/14/22 07:10				**Analyst:** rjg
4,4´-DDD	ND	0.050	ug/l	5	11/19/22	M-04, U-01
4,4´-DDE	ND	0.050	ug/l	5	11/19/22	M-04, U-01
4,4´-DDT	ND	0.050	ug/l	5	11/19/22	M-04, U-01
Aldrin	ND	0.050	ug/l	5	11/19/22	M-04, U-01
alpha-BHC	ND	0.050	ug/l	5	11/19/22	M-04, U-01
Aroclor 1016	ND	0.50	ug/l	5	11/19/22	M-04, U-01
Aroclor 1221	ND	0.50	ug/l	5	11/19/22	M-04, U-01
Aroclor 1232	ND	0.50	ug/l	5	11/19/22	M-04, U-01
Aroclor 1242	ND	0.50	ug/l	5	11/19/22	M-04, U-01
Aroclor 1248	ND	0.50	ug/l	5	11/19/22	M-04, U-01
Aroclor 1254	ND	0.50	ug/l	5	11/19/22	M-04, U-01
Aroclor 1260	ND	0.50	ug/l	5	11/19/22	M-04, U-01
beta-BHC	ND	0.050	ug/l	5	11/19/22	M-04, U-01
Chlordane (tech)	ND	0.50	ug/l	5	11/19/22	M-04, U-01
Chlorothalonil	ND	0.25	ug/l	5	11/19/22	M-04, U-01
delta-BHC	ND	0.050	ug/l	5	11/19/22	M-04, U-01
Dieldrin	ND	0.050	ug/l	5	11/19/22	M-04, U-01

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

Project Number: 22K0124

Project Manager: Stephen Berentsen

Reported:
12/09/2022 16:10

Sample Results

(Continued)

Sample: 22K0124-01
2K04024-01 (Water)

Sampled: 11/03/22 11:15 by Client

(Continued)

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD (Continued)							
Method: EPA 508.1			**Instr:** GC08				
Batch ID: W2K1072 **Preparation:** EPA 508.1/SPE			**Prepared:** 11/14/22 07:10				**Analyst:** rjg
Endosulfan I	ND		0.050	ug/l	5	11/19/22	M-04, U-01
Endosulfan II	ND		0.050	ug/l	5	11/19/22	M-04, U-01
Endosulfan sulfate	ND		0.050	ug/l	5	11/19/22	M-04, U-01
Endrin	ND		0.050	ug/l	5	11/19/22	M-04, U-01
Endrin aldehyde	ND		0.050	ug/l	5	11/19/22	M-04, U-01
gamma-BHC (Lindane)	ND		0.050	ug/l	5	11/19/22	M-04, U-01
Heptachlor	ND		0.050	ug/l	5	11/19/22	M-04, U-01
Heptachlor epoxide	ND		0.050	ug/l	5	11/19/22	M-04, U-01
Hexachlorobenzene	ND		0.25	ug/l	5	11/19/22	M-04, U-01
Hexachlorocyclopentadiene	ND		0.25	ug/l	5	11/19/22	M-04, U-01
Methoxychlor	ND		0.050	ug/l	5	11/19/22	M-04, U-01
PCBs, Total	ND		2.5	ug/l	5	11/19/22	M-04, U-01
Propachlor	ND		0.25	ug/l	5	11/19/22	M-04, U-01
Toxaphene	ND		5.0	ug/l	5	11/19/22	M-04, U-01
Trifluralin	ND		0.050	ug/l	5	11/19/22	M-04, U-01
Surrogate(s)							
4,4-Dibromobiphenyl	*102%*	*Conc: 0.103*	*70-130*			*11/19/22*	
Diquat and Paraquat by EPA 549.2							
Method: EPA 549.2			**Instr:** LC10				
Batch ID: W2K0530 **Preparation:** EPA 549.2/SPE			**Prepared:** 11/08/22 06:52				**Analyst:** pjs
Diquat	ND		4.0	ug/l	1	11/28/22	
Endothall By EPA 548.1							
Method: EPA 548.1			**Instr:** GCMS06				
Batch ID: W2K0453 **Preparation:** EPA 548.1/SPE			**Prepared:** 11/07/22 09:04				**Analyst:** rmr
Endothall	ND		45	ug/l	1	11/15/22	
Glyphosate by EPA 547							
Method: EPA 547			**Instr:** LC11				
Batch ID: W2K0485 **Preparation:** _NONE (LC)			**Prepared:** 11/07/22 11:30				**Analyst:** PJS
Glyphosate	ND		5.0	ug/l	1	11/07/22	
Haloacetic Acids (HAAs) by GC/ECD							
Method: EPA 552.3			**Instr:** [CALC]				
Batch ID: [CALC] **Preparation:** [CALC]			**Prepared:** 11/11/22 08:01				**Analyst:** ecs
HAA5, Total	**14**		1.0	ug/l	1	11/15/22	
Method: EPA 552.3			**Instr:** GC05				
Batch ID: W2K0933 **Preparation:** EPA 552.3/Micro Ext. Drtz			**Prepared:** 11/11/22 08:01				**Analyst:** ecs
Bromochloroacetic acid (bcaa)	**2.6**		1.0	ug/l	1	11/15/22	U-01

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

Project Number: 22K0124

Project Manager: Stephen Berentsen

Reported:
12/09/2022 16:10

Sample Results

(Continued)

Sample: 22K0124-01
2K04024-01 (Water)

Sampled: 11/03/22 11:15 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: W2K0933 **Preparation:** EPA 552.3/Micro Ext. Drtz		**Prepared:** 11/11/22 08:01				**Analyst:** ecs
Bromodichloroacetic acid (bdcaa)	**1.7**	1.0	ug/l	1	11/15/22	U-01
Chlorodibromoacetic acid (cdbaa)	ND	1.0	ug/l	1	11/15/22	U-01
Dibromoacetic acid (dbaa)	ND	1.0	ug/l	1	11/15/22	U-01
Dichloroacetic acid (dcaa)	**9.3**	1.0	ug/l	1	11/15/22	U-01
Monobromoacetic acid (mbaa)	ND	1.0	ug/l	1	11/15/22	U-01
Monochloroacetic acid (mcaa)	ND	2.0	ug/l	1	11/15/22	U-01
Tribromoacetic acid (tbaa)	ND	2.0	ug/l	1	11/15/22	U-01
Trichloroacetic acid (tcaa)	**5.1**	1.0	ug/l	1	11/15/22	U-01
Surrogate(s)						
2-Bromobutyric acid	*97%*	*Conc: 9.71*	*70-130*		*11/15/22*	
Pesticides/Herbicides and Other Organic compounds by LC/MS/MS						
Method: EPA 8321A		**Instr:** LCMS03				
Batch ID: W2K1117 **Preparation:** _NONE (LC)		**Prepared:** 11/14/22 11:39				**Analyst:** pjs
3-Hydroxycarbofuran	ND	0.50	ug/l	1	11/14/22	
Aldicarb	ND	0.50	ug/l	1	11/14/22	
Aldicarb sulfone	ND	0.50	ug/l	1	11/14/22	
Aldicarb sulfoxide	ND	0.50	ug/l	1	11/14/22	
Carbaryl	ND	0.50	ug/l	1	11/14/22	
Carbofuran	ND	0.50	ug/l	1	11/14/22	
Diuron	ND	1.0	ug/l	1	11/14/22	
Methiocarb	ND	0.50	ug/l	1	11/14/22	
Methomyl	ND	0.50	ug/l	1	11/14/22	
Oxamyl	ND	0.50	ug/l	1	11/14/22	
Propoxur (Baygon)	ND	0.50	ug/l	1	11/14/22	
Semivolatile Organic Compounds by GC/MS						
Method: EPA 525.2		**Instr:** GCMS16				
Batch ID: W2K0830 **Preparation:** EPA 525.2/SPE		**Prepared:** 11/10/22 08:18				**Analyst:** rmr
Alachlor	ND	0.10	ug/l	1	11/16/22	U-01
Atrazine	ND	0.10	ug/l	1	11/16/22	U-01
Benzo (a) pyrene	ND	0.10	ug/l	1	11/16/22	U-01
Bis(2-ethylhexyl)adipate	ND	5.0	ug/l	1	11/16/22	U-01
Bis(2-ethylhexyl)phthalate	ND	3.0	ug/l	1	11/16/22	U-01
Bromacil	ND	0.50	ug/l	1	11/16/22	U-01
Butachlor	ND	0.10	ug/l	1	11/16/22	U-01
Captan	ND	1.0	ug/l	1	11/16/22	U-01
Chlorpropham	ND	0.10	ug/l	1	11/16/22	U-01

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1824 1st Street
San Fernando, CA 91340

Project Number: 22K0124

Project Manager: Stephen Berentsen

Reported:
12/09/2022 16:10

Sample Results

(Continued)

Sample: 22K0124-01
2K04024-01 (Water)

Sampled: 11/03/22 11:15 by Client

(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Semivolatile Organic Compounds by GC/MS (Continued)						
Method: EPA 525.2		**Instr:** GCMS16				
Batch ID: W2K0830 **Preparation:** EPA 525.2/SPE		**Prepared:** 11/10/22 08:18				**Analyst:** rmr
Diazinon	ND	0.10	ug/l	1	11/16/22	U-01
Dimethoate	ND	0.20	ug/l	1	11/16/22	U-01
Diphenamid	ND	0.10	ug/l	1	11/16/22	U-01
Disulfoton	ND	0.10	ug/l	1	11/16/22	U-01
EPTC	ND	0.10	ug/l	1	11/16/22	U-01
Hexachlorocyclopentadiene	ND	1.0	ug/l	1	11/16/22	U-01
Metolachlor	ND	0.10	ug/l	1	11/16/22	U-01
Metribuzin	ND	0.10	ug/l	1	11/16/22	U-01
Molinate	ND	0.10	ug/l	1	11/16/22	U-01
Prometryn	ND	0.10	ug/l	1	11/16/22	U-01
Simazine	ND	0.10	ug/l	1	11/16/22	U-01
Terbacil	ND	2.0	ug/l	1	11/16/22	U-01
Thiobencarb	ND	0.10	ug/l	1	11/16/22	U-01
Trithion	ND	0.10	ug/l	1	11/16/22	U-01
Surrogate(s)						
1,3-Dimethyl-2-nitrobenzene	*99%*	*Conc: 5.00*	*70-130*		*11/16/22*	
Perylene-d12	*105%*	*Conc: 5.30*	*50-120*		*11/16/22*	
Triphenyl phosphate	*107%*	*Conc: 5.39*	*70-130*		*11/16/22*	
Semivolatile Organics - Low Level by GC/MS SIM Mode						
Method: EPA 625.1		**Instr:** GCMS06				
Batch ID: W2K0457 **Preparation:** EPA 625/L-L SF		**Prepared:** 11/07/22 09:29				**Analyst:** rmr
1-Methylnaphthalene	ND	0.10	ug/l	1	11/12/22	
2-Methylnaphthalene	ND	0.10	ug/l	1	11/12/22	
Acenaphthene	ND	0.10	ug/l	1	11/12/22	
Acenaphthylene	ND	0.10	ug/l	1	11/12/22	
Anthracene	ND	0.10	ug/l	1	11/12/22	
Benzo (a) anthracene	ND	0.10	ug/l	1	11/12/22	
Benzo (a) pyrene	ND	0.10	ug/l	1	11/12/22	
Benzo (b) fluoranthene	ND	0.10	ug/l	1	11/12/22	
Benzo (g,h,i) perylene	ND	0.10	ug/l	1	11/12/22	
Benzo (k) fluoranthene	ND	0.10	ug/l	1	11/12/22	
Chrysene	ND	0.10	ug/l	1	11/12/22	
Dibenzo (a,h) anthracene	ND	0.10	ug/l	1	11/12/22	
Fluoranthene	ND	0.10	ug/l	1	11/12/22	
Fluorene	ND	0.10	ug/l	1	11/12/22	
Indeno (1,2,3-cd) pyrene	ND	0.10	ug/l	1	11/12/22	

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Project Number: 22K0124

Project Manager: Stephen Berentsen

Reported:
12/09/2022 16:10

Sample Results

(Continued)

Sample: 22K0124-01
2K04024-01 (Water)

Sampled: 11/03/22 11:15 by Client
(Continued)

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Semivolatile Organics - Low Level by GC/MS SIM Mode (Continued)						
Method: EPA 625.1		**Instr:** GCMS06				
Batch ID: W2K0457 **Preparation:** EPA 625/L-L SF		**Prepared:** 11/07/22 09:29				**Analyst:** rmr
Naphthalene	ND	0.10	ug/l	1	11/12/22	
Phenanthrene	ND	0.10	ug/l	1	11/12/22	
Pyrene	ND	0.10	ug/l	1	11/12/22	
Surrogate(s)						
2-Fluorobiphenyl	*75%*	*Conc: 3.79*	*22-120*		*11/12/22*	
Nitrobenzene-d5	*80%*	*Conc: 4.06*	*47-120*		*11/12/22*	
Terphenyl-d14	*99%*	*Conc: 5.02*	*44-129*		*11/12/22*	
Volatile Organic Compounds by P&T and GC/MS						
Method: EPA 524.2		**Instr:** GCMS08				
Batch ID: W2K1130 **Preparation:** EPA 5030B		**Prepared:** 11/14/22 14:08				**Analyst:** ADM
1,1,1,2-Tetrachloroethane	ND	0.50	ug/l	1	11/14/22	U-01
1,1,1-Trichloroethane	ND	0.50	ug/l	1	11/14/22	U-01
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	1	11/14/22	U-01
1,1,2-Trichloroethane	ND	0.50	ug/l	1	11/14/22	U-01
1,1-Dichloroethane	ND	0.50	ug/l	1	11/14/22	U-01
1,1-Dichloroethene	ND	0.50	ug/l	1	11/14/22	U-01
1,1-Dichloropropene	ND	0.50	ug/l	1	11/14/22	U-01
1,2,3-Trichlorobenzene	ND	0.50	ug/l	1	11/14/22	U-01
1,2,4-Trichlorobenzene	ND	0.50	ug/l	1	11/14/22	U-01
1,2,4-Trimethylbenzene	ND	0.50	ug/l	1	11/14/22	U-01
1,2-Dichloroethane	ND	0.50	ug/l	1	11/14/22	U-01
1,2-Dichloropropane	ND	0.50	ug/l	1	11/14/22	U-01
1,3,5-Trimethylbenzene	ND	0.50	ug/l	1	11/14/22	U-01
1,3-Dichloropropane	ND	0.50	ug/l	1	11/14/22	U-01
1,3-Dichloropropene, Total	ND	0.50	ug/l	1	11/14/22	U-01
2,2-Dichloropropane	ND	0.50	ug/l	1	11/14/22	U-01
2-Butanone	ND	5.0	ug/l	1	11/14/22	U-01
2-Chlorotoluene	ND	0.50	ug/l	1	11/14/22	U-01
2-Hexanone	ND	5.0	ug/l	1	11/14/22	U-01
4-Chlorotoluene	ND	0.50	ug/l	1	11/14/22	U-01
4-Methyl-2-pentanone	ND	5.0	ug/l	1	11/14/22	U-01
Benzene	ND	0.50	ug/l	1	11/14/22	U-01
Bromobenzene	ND	0.50	ug/l	1	11/14/22	U-01
Bromochloromethane	ND	0.50	ug/l	1	11/14/22	U-01
Bromodichloromethane	**4.1**	0.50	ug/l	1	11/14/22	U-01
Bromoform	ND	0.50	ug/l	1	11/14/22	U-01

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Project Number: 22K0124

Project Manager: Stephen Berentsen

Reported:
12/09/2022 16:10

Sample Results

(Continued)

Sample: 22K0124-01
2K04024-01 (Water)

Sampled: 11/03/22 11:15 by Client

(Continued)

Volatile Organic Compounds by P&T and GC/MS (Continued)

Method: EPA 524.2 **Instr:** GCMS08

Batch ID: W2K1130 **Preparation:** EPA 5030B **Prepared:** 11/14/22 14:08 **Analyst:** ADM

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Bromomethane	ND	0.50	ug/l	1	11/14/22	U-01
Carbon tetrachloride	ND	0.50	ug/l	1	11/14/22	U-01
Chlorobenzene	ND	0.50	ug/l	1	11/14/22	U-01
Chloroethane	ND	0.50	ug/l	1	11/14/22	U-01
Chloroform	**16**	0.50	ug/l	1	11/14/22	U-01
Chloromethane	ND	0.50	ug/l	1	11/14/22	U-01
cis-1,2-Dichloroethene	ND	0.50	ug/l	1	11/14/22	U-01
cis-1,3-Dichloropropene	ND	0.50	ug/l	1	11/14/22	U-01
Dibromochloromethane	**0.53**	0.50	ug/l	1	11/14/22	U-01
Dibromomethane	ND	0.50	ug/l	1	11/14/22	U-01
Dichlorodifluoromethane (Freon 12)	ND	0.50	ug/l	1	11/14/22	U-01
Di-isopropyl ether	ND	2.0	ug/l	1	11/14/22	U-01
Ethyl tert-butyl ether	ND	2.0	ug/l	1	11/14/22	U-01
Ethylbenzene	ND	0.50	ug/l	1	11/14/22	U-01
Freon 113	ND	5.0	ug/l	1	11/14/22	U-01
Hexachlorobutadiene	ND	0.50	ug/l	1	11/14/22	U-01
Isopropylbenzene	ND	0.50	ug/l	1	11/14/22	U-01
m,p-Xylene	ND	0.50	ug/l	1	11/14/22	U-01
m-Dichlorobenzene	ND	0.50	ug/l	1	11/14/22	U-01
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/l	1	11/14/22	U-01
Methylene chloride	ND	0.50	ug/l	1	11/14/22	U-01
Naphthalene	ND	0.50	ug/l	1	11/14/22	U-01
n-Butylbenzene	ND	0.50	ug/l	1	11/14/22	U-01
n-Propylbenzene	ND	0.50	ug/l	1	11/14/22	U-01
o-Dichlorobenzene	ND	0.50	ug/l	1	11/14/22	U-01
o-Xylene	ND	0.50	ug/l	1	11/14/22	U-01
p-Dichlorobenzene	ND	0.50	ug/l	1	11/14/22	U-01
p-Isopropyltoluene	ND	0.50	ug/l	1	11/14/22	U-01
sec-Butylbenzene	ND	0.50	ug/l	1	11/14/22	U-01
Styrene	ND	0.50	ug/l	1	11/14/22	U-01
Tert-amyl methyl ether	ND	2.0	ug/l	1	11/14/22	U-01
tert-Butylbenzene	ND	0.50	ug/l	1	11/14/22	U-01
Tetrachloroethene	ND	0.50	ug/l	1	11/14/22	U-01
THMs, Total	**21**	0.50	ug/l	1	11/14/22	U-01
Toluene	ND	0.50	ug/l	1	11/14/22	U-01

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Project Number: 22K0124

Project Manager: Stephen Berentsen

Reported:
12/09/2022 16:10

Sample Results

(Continued)

Sample: 22K0124-01
2K04024-01 (Water)

Sampled: 11/03/22 11:15 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: W2K1130 **Preparation:** EPA 5030B			**Prepared:** 11/14/22 14:08			**Analyst:** ADM	
trans-1,2-Dichloroethene	ND		0.50	ug/l	1	11/14/22	U-01
trans-1,3-Dichloropropene	ND		0.50	ug/l	1	11/14/22	U-01
Trichloroethene	ND		0.50	ug/l	1	11/14/22	U-01
Trichlorofluoromethane	ND		0.50	ug/l	1	11/14/22	U-01
Vinyl chloride	ND		0.50	ug/l	1	11/14/22	U-01
Xylenes, Total	ND		0.50	ug/l	1	11/14/22	U-01
Surrogate(s)							
1,2-Dichlorobenzene-d4	*106%*	*Conc: 10.6*	*70-130*			*11/14/22*	
4-Bromofluorobenzene	*101%*	*Conc: 10.1*	*70-130*			*11/14/22*	
Volatile Organics by P&T and GC/MS							
Method: EPA 524.3			**Instr:** GCMS12				
Batch ID: W2K1074 **Preparation:** Method (P+T)			**Prepared:** 11/14/22 07:39			**Analyst:** ADM	
1,2-Dibromo-3-chloropropane	ND		0.010	ug/l	1	11/14/22	U-01
1,2-Dibromoethane (EDB)	ND		0.020	ug/l	1	11/14/22	U-01
Surrogate(s)							
1,2-Dichlorobenzene-d4	*100%*	*Conc: 0.398*	*70-130*			*11/14/22*	
4-Bromofluorobenzene	*100%*	*Conc: 0.401*	*70-130*			*11/14/22*	

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Project Number: 22K0124

Project Manager: Stephen Berentsen

Reported:
12/09/2022 16:10

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: W2K0842 - EPA 515.4										
Blank (W2K0842-BLK1)				**Prepared: 11/10/22 Analyzed: 11/15/22**						
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	*10.1*		*ug/l*	*10.0*		*101*	*70-130*			
LCS (W2K0842-BS1)				**Prepared: 11/10/22 Analyzed: 11/16/22**						
2,4,5-T	4.08	0.20	ug/l	4.00		102	70-130			
2,4,5-TP (Silvex)	4.04	0.20	ug/l	4.00		101	70-130			
2,4-D	8.20	0.40	ug/l	8.00		103	70-130			
2,4-DB	20.0	2.0	ug/l	16.0		125	70-130			
3,5-Dichlorobenzoic acid	8.63	1.0	ug/l	8.00		108	70-130			
Acifluorfen	3.84	0.40	ug/l	4.00		96	70-130			
Bentazon	15.1	2.0	ug/l	16.0		94	70-130			
Dalapon	8.21	0.40	ug/l	8.00		103	70-130			
DCPA	3.96	0.10	ug/l	4.00		99	70-130			
Dicamba	8.05	0.60	ug/l	8.00		101	70-130			
Dichloroprop	8.24	0.30	ug/l	8.00		103	70-130			
Dinoseb	3.92	0.40	ug/l	4.00		98	70-130			
Pentachlorophenol	3.81	0.20	ug/l	4.00		95	70-130			
Picloram	4.03	0.60	ug/l	4.00		101	70-130			
Surrogate(s)										
2,4-DCAA	*10.0*		*ug/l*	*10.0*		*100*	*70-130*			
Matrix Spike (W2K0842-MS1)	**Source: 2J18018-01**			**Prepared: 11/10/22 Analyzed: 11/16/22**						
2,4,5-T	4.15	0.20	ug/l	4.00	ND	104	70-130			
2,4,5-TP (Silvex)	4.33	0.20	ug/l	4.00	ND	108	70-130			
2,4-D	8.22	0.40	ug/l	8.00	ND	103	70-130			
2,4-DB	26.8	2.0	ug/l	16.0	ND	167	70-130			MS-01
3,5-Dichlorobenzoic acid	8.32	1.0	ug/l	8.00	ND	104	70-130			

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Project Number: 22K0124

Project Manager: Stephen Berentsen

Reported:
12/09/2022 16:10

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: W2K0842 - EPA 515.4 (Continued)										
Matrix Spike (W2K0842-MS1)	**Source: 2J18018-01**			**Prepared: 11/10/22**	**Analyzed: 11/16/22**					
Acifluorfen	4.28	0.40	ug/l	4.00	ND	107	70-130			
Bentazon	15.1	2.0	ug/l	16.0	ND	94	70-130			
Dalapon	8.10	0.40	ug/l	8.00	ND	101	70-130			
DCPA	3.96	0.10	ug/l	4.00	ND	99	70-130			
Dicamba	8.16	0.60	ug/l	8.00	ND	102	70-130			
Dichloroprop	8.24	0.30	ug/l	8.00	ND	103	70-130			
Dinoseb	4.17	0.40	ug/l	4.00	ND	104	70-130			
Pentachlorophenol	3.83	0.20	ug/l	4.00	ND	96	70-130			
Picloram	4.26	0.60	ug/l	4.00	ND	107	70-130			
Surrogate(s)										
2,4-DCAA	*10.4*		*ug/l*	*10.0*		*104*	*70-130*			
Matrix Spike Dup (W2K0842-MSD1)	**Source: 2J18018-01**			**Prepared: 11/10/22**	**Analyzed: 11/16/22**					
2,4,5-T	4.06	0.20	ug/l	4.00	ND	102	70-130	2	30	
2,4,5-TP (Silvex)	4.17	0.20	ug/l	4.00	ND	104	70-130	4	30	
2,4-D	7.76	0.40	ug/l	8.00	ND	97	70-130	6	30	
2,4-DB	26.0	2.0	ug/l	16.0	ND	162	70-130	3	30	MS-01
3,5-Dichlorobenzoic acid	7.87	1.0	ug/l	8.00	ND	98	70-130	6	30	
Acifluorfen	4.29	0.40	ug/l	4.00	ND	107	70-130	0.2	30	
Bentazon	15.2	2.0	ug/l	16.0	ND	95	70-130	0.3	30	
Dalapon	8.78	0.40	ug/l	8.00	ND	110	70-130	8	30	
DCPA	3.93	0.10	ug/l	4.00	ND	98	70-130	0.7	30	
Dicamba	7.77	0.60	ug/l	8.00	ND	97	70-130	5	30	
Dichloroprop	7.72	0.30	ug/l	8.00	ND	96	70-130	7	30	
Dinoseb	4.08	0.40	ug/l	4.00	ND	102	70-130	2	30	
Pentachlorophenol	3.63	0.20	ug/l	4.00	ND	91	70-130	5	30	
Picloram	4.13	0.60	ug/l	4.00	ND	103	70-130	3	30	
Surrogate(s)										
2,4-DCAA	*9.96*		*ug/l*	*10.0*		*100*	*70-130*			

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Pat-Chem Laboratories, Inc.
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San Fernando, CA 91340

Project Number: 22K0124

Project Manager: Stephen Berentsen

Reported:
12/09/2022 16:10

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: W2K1072 - EPA 508.1										
Blank (W2K1072-BLK1)				**Prepared: 11/14/22 Analyzed: 11/18/22**						
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							
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	*0.0936*		*ug/l*	*0.100*		*94*	*70-130*			
Blank (W2K1072-BLK2)				**Prepared: 11/14/22 Analyzed: 11/28/22**						
4,4´-DDD	ND	0.010	ug/l							QC-2
4,4´-DDE	ND	0.010	ug/l							QC-2
4,4´-DDT	ND	0.010	ug/l							QC-2
Aldrin	ND	0.010	ug/l							QC-2

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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: W2K1072 - EPA 508.1 (Continued)										
Blank (W2K1072-BLK2)				**Prepared: 11/14/22 Analyzed: 11/28/22**						
alpha-BHC	ND	0.010	ug/l							QC-2
Aroclor 1016	ND	0.10	ug/l							QC-2
Aroclor 1221	ND	0.10	ug/l							QC-2
Aroclor 1232	ND	0.10	ug/l							QC-2
Aroclor 1242	ND	0.10	ug/l							QC-2
Aroclor 1248	ND	0.10	ug/l							QC-2
Aroclor 1254	ND	0.10	ug/l							QC-2
Aroclor 1260	ND	0.10	ug/l							QC-2
beta-BHC	ND	0.010	ug/l							QC-2
Chlordane (tech)	ND	0.10	ug/l							QC-2
Chlorothalonil	ND	0.050	ug/l							QC-2
delta-BHC	ND	0.010	ug/l							QC-2
Dieldrin	ND	0.010	ug/l							QC-2
Endosulfan I	ND	0.010	ug/l							QC-2
Endosulfan II	ND	0.010	ug/l							QC-2
Endosulfan sulfate	ND	0.010	ug/l							QC-2
Endrin	ND	0.010	ug/l							QC-2
Endrin aldehyde	ND	0.010	ug/l							QC-2
gamma-BHC (Lindane)	ND	0.010	ug/l							QC-2
Heptachlor	ND	0.010	ug/l							QC-2
Heptachlor epoxide	ND	0.010	ug/l							QC-2
Hexachlorobenzene	ND	0.050	ug/l							QC-2
Hexachlorocyclopentadiene	ND	0.050	ug/l							QC-2
Methoxychlor	ND	0.010	ug/l							QC-2
PCBs, Total	ND	0.50	ug/l							QC-2
Propachlor	ND	0.050	ug/l							QC-2
Toxaphene	ND	1.0	ug/l							QC-2
Trifluralin	ND	0.010	ug/l							QC-2
Surrogate(s)										
4,4-Dibromobiphenyl	*0.0938*		*ug/l*	*0.100*		*94*	*70-130*			*QC-2*
LCS (W2K1072-BS1)				**Prepared: 11/14/22 Analyzed: 11/18/22**						
4,4´-DDD	0.0988	0.010	ug/l	0.100		99	70-130			
4,4´-DDE	0.0815	0.010	ug/l	0.100		81	70-130			
4,4´-DDT	0.115	0.010	ug/l	0.100		115	70-130			
Aldrin	0.0626	0.010	ug/l	0.100		63	50-130			
alpha-BHC	0.103	0.010	ug/l	0.100		103	70-130			
beta-BHC	0.101	0.010	ug/l	0.100		101	70-130			
delta-BHC	0.101	0.010	ug/l	0.100		101	70-130			
Dieldrin	0.0898	0.010	ug/l	0.100		90	70-130			

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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: W2K1072 - EPA 508.1 (Continued)										
LCS (W2K1072-BS1)				**Prepared: 11/14/22 Analyzed: 11/18/22**						
Endosulfan I	0.0998	0.010	ug/l	0.100		100	70-130			
Endosulfan II	0.103	0.010	ug/l	0.100		103	70-130			
Endosulfan sulfate	0.104	0.010	ug/l	0.100		104	70-130			
Endrin	0.103	0.010	ug/l	0.100		103	70-130			
Endrin aldehyde	0.0822	0.010	ug/l	0.100		82	70-130			
gamma-BHC (Lindane)	0.103	0.010	ug/l	0.100		103	70-130			
Heptachlor	0.101	0.010	ug/l	0.100		101	70-130			
Heptachlor epoxide	0.101	0.010	ug/l	0.100		101	70-130			
Methoxychlor	0.112	0.010	ug/l	0.100		112	70-130			
Surrogate(s)										
4,4-Dibromobiphenyl	*0.102*		*ug/l*	*0.100*		*102*	*70-130*			
LCS (W2K1072-BS2)				**Prepared: 11/14/22 Analyzed: 11/18/22**						
Aroclor 1016	0.777	0.10	ug/l	1.00		78	70-130			
Aroclor 1260	0.893	0.10	ug/l	1.00		89	70-130			
Surrogate(s)										
4,4-Dibromobiphenyl	*0.0932*		*ug/l*	*0.100*		*93*	*70-130*			
LCS (W2K1072-BS3)				**Prepared: 11/14/22 Analyzed: 11/28/22**						
4,4´-DDD	0.0985	0.010	ug/l	0.100		98	70-130			QC-2
4,4´-DDE	0.0823	0.010	ug/l	0.100		82	70-130			QC-2
4,4´-DDT	0.119	0.010	ug/l	0.100		119	70-130			QC-2
Aldrin	0.0599	0.010	ug/l	0.100		60	50-130			QC-2
alpha-BHC	0.0988	0.010	ug/l	0.100		99	70-130			QC-2
beta-BHC	0.0975	0.010	ug/l	0.100		98	70-130			QC-2
delta-BHC	0.0994	0.010	ug/l	0.100		99	70-130			QC-2
Dieldrin	0.0878	0.010	ug/l	0.100		88	70-130			QC-2
Endosulfan I	0.0989	0.010	ug/l	0.100		99	70-130			QC-2
Endosulfan II	0.104	0.010	ug/l	0.100		104	70-130			QC-2
Endosulfan sulfate	0.104	0.010	ug/l	0.100		104	70-130			QC-2
Endrin	0.106	0.010	ug/l	0.100		106	70-130			QC-2
Endrin aldehyde	0.0815	0.010	ug/l	0.100		82	70-130			QC-2
gamma-BHC (Lindane)	0.0996	0.010	ug/l	0.100		100	70-130			QC-2
Heptachlor	0.101	0.010	ug/l	0.100		101	70-130			QC-2
Heptachlor epoxide	0.0995	0.010	ug/l	0.100		99	70-130			QC-2
Methoxychlor	0.112	0.010	ug/l	0.100		112	70-130			QC-2
Surrogate(s)										
4,4-Dibromobiphenyl	*0.104*		*ug/l*	*0.100*		*104*	*70-130*			*QC-2*
LCS (W2K1072-BS4)				**Prepared: 11/14/22 Analyzed: 11/28/22**						
Aroclor 1016	0.703	0.10	ug/l	1.00		70	70-130			QC-2
Aroclor 1260	0.762	0.10	ug/l	1.00		76	70-130			QC-2
Surrogate(s)										

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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: W2K1072 - EPA 508.1 (Continued)										
LCS (W2K1072-BS4)				**Prepared: 11/14/22**	**Analyzed: 11/28/22**					
Surrogate(s)										
4,4-Dibromobiphenyl	*0.0928*		*ug/l*	*0.100*		*93*	*70-130*			*QC-2*
Matrix Spike (W2K1072-MS1)	**Source: 2J18018-01**			**Prepared: 11/14/22**	**Analyzed: 11/18/22**					
4,4´-DDD	0.100	0.010	ug/l	0.102	ND	98	65-135			
4,4´-DDE	0.0838	0.010	ug/l	0.102	ND	82	65-135			
4,4´-DDT	0.117	0.010	ug/l	0.102	ND	114	65-135			
Aldrin	0.0605	0.010	ug/l	0.102	ND	59	50-135			
alpha-BHC	0.0938	0.010	ug/l	0.102	ND	92	65-135			
beta-BHC	0.0953	0.010	ug/l	0.102	ND	93	65-135			
delta-BHC	0.0953	0.010	ug/l	0.102	ND	93	65-135			
Dieldrin	0.0867	0.010	ug/l	0.102	ND	85	65-135			
Endosulfan I	0.0959	0.010	ug/l	0.102	ND	94	65-135			
Endosulfan II	0.102	0.010	ug/l	0.102	ND	100	65-135			
Endosulfan sulfate	0.102	0.010	ug/l	0.102	ND	100	65-135			
Endrin	0.101	0.010	ug/l	0.102	ND	99	65-135			
Endrin aldehyde	0.0841	0.010	ug/l	0.102	ND	82	65-135			
gamma-BHC (Lindane)	0.0953	0.010	ug/l	0.102	ND	93	65-135			
Heptachlor	0.0961	0.010	ug/l	0.102	ND	94	65-135			
Heptachlor epoxide	0.0960	0.010	ug/l	0.102	ND	94	65-135			
Methoxychlor	0.116	0.010	ug/l	0.102	ND	113	65-135			
Surrogate(s)										
4,4-Dibromobiphenyl	*0.104*		*ug/l*	*0.102*		*102*	*70-130*			
Matrix Spike Dup (W2K1072-MSD1)	**Source: 2J18018-01**			**Prepared: 11/14/22**	**Analyzed: 11/18/22**					
4,4´-DDD	0.0966	0.010	ug/l	0.101	ND	96	65-135	4	30	
4,4´-DDE	0.0806	0.010	ug/l	0.101	ND	80	65-135	4	30	
4,4´-DDT	0.113	0.010	ug/l	0.101	ND	112	65-135	4	30	
Aldrin	0.0577	0.010	ug/l	0.101	ND	57	50-135	5	30	
alpha-BHC	0.0960	0.010	ug/l	0.101	ND	95	65-135	2	30	
beta-BHC	0.0959	0.010	ug/l	0.101	ND	95	65-135	0.6	30	
delta-BHC	0.0957	0.010	ug/l	0.101	ND	95	65-135	0.4	30	
Dieldrin	0.0863	0.010	ug/l	0.101	ND	86	65-135	0.5	30	
Endosulfan I	0.0955	0.010	ug/l	0.101	ND	95	65-135	0.4	30	
Endosulfan II	0.0994	0.010	ug/l	0.101	ND	99	65-135	3	30	
Endosulfan sulfate	0.101	0.010	ug/l	0.101	ND	100	65-135	1	30	
Endrin	0.100	0.010	ug/l	0.101	ND	99	65-135	0.8	30	
Endrin aldehyde	0.0835	0.010	ug/l	0.101	ND	83	65-135	0.6	30	
gamma-BHC (Lindane)	0.0964	0.010	ug/l	0.101	ND	96	65-135	1	30	
Heptachlor	0.0958	0.010	ug/l	0.101	ND	95	65-135	0.4	30	
Heptachlor epoxide	0.0960	0.010	ug/l	0.101	ND	95	65-135	0.03	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: W2K1072 - EPA 508.1 (Continued)										
Matrix Spike Dup (W2K1072-MSD1)	**Source: 2J18018-01**			**Prepared: 11/14/22**	**Analyzed: 11/18/22**					
Methoxychlor	0.113	0.010	ug/l	0.101	ND	112	65-135	2	30	
Surrogate(s)										
4,4-Dibromobiphenyl	*0.109*		*ug/l*	*0.101*		*108*	*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: W2K0530 - EPA 549.2										
Blank (W2K0530-BLK1)				**Prepared: 11/08/22**	**Analyzed: 11/28/22**					
Diquat	ND	0.40	ug/l							
LCS (W2K0530-BS1)				**Prepared: 11/08/22**	**Analyzed: 11/28/22**					
Diquat	20.2	0.40	ug/l	20.0		101	70-130			
Matrix Spike (W2K0530-MS1)	**Source: 2J18018-01**			**Prepared: 11/08/22**	**Analyzed: 11/28/22**					
Diquat	17.6	0.40	ug/l	20.0	ND	88	46-122			
Matrix Spike Dup (W2K0530-MSD1)	**Source: 2J18018-01**			**Prepared: 11/08/22**	**Analyzed: 11/28/22**					
Diquat	17.5	0.40	ug/l	20.0	ND	88	46-122	0.6	30	

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: W2K0453 - EPA 548.1										
Blank (W2K0453-BLK1)				**Prepared: 11/07/22**	**Analyzed: 11/14/22**					
Endothall	ND	9.0	ug/l							
LCS (W2K0453-BS1)				**Prepared: 11/07/22**	**Analyzed: 11/14/22**					
Endothall	83.7	9.0	ug/l	100		84	31-117			
Matrix Spike (W2K0453-MS1)	**Source: 2K03085-01**			**Prepared: 11/07/22**	**Analyzed: 11/14/22**					
Endothall	66.7	90	ug/l	200	ND	33	0.1-109			
Matrix Spike (W2K0453-MS2)	**Source: 2J18018-01**			**Prepared: 11/07/22**	**Analyzed: 11/14/22**					
Endothall	149	90	ug/l	200	ND	74	0.1-109			
Matrix Spike Dup (W2K0453-MSD1)	**Source: 2K03085-01**			**Prepared: 11/07/22**	**Analyzed: 11/14/22**					
Endothall	73.4	90	ug/l	200	ND	37	0.1-109	10	30	
Matrix Spike Dup (W2K0453-MSD2)	**Source: 2J18018-01**			**Prepared: 11/07/22**	**Analyzed: 11/14/22**					
Endothall	63.3	90	ug/l	200	ND	32	0.1-109	81	30	R-02

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Quality Control Results

(Continued)

Glyphosate by EPA 547

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W2K0485 - EPA 547										
Blank (W2K0485-BLK1)				**Prepared & Analyzed: 11/07/22**						
Glyphosate	ND	5.0	ug/l							
LCS (W2K0485-BS1)				**Prepared & Analyzed: 11/07/22**						
Glyphosate	22.5	5.0	ug/l	25.0		90	70-130			
LCS Dup (W2K0485-BSD1)				**Prepared & Analyzed: 11/07/22**						
Glyphosate	22.0	5.0	ug/l	25.0		88	70-130	2	30	
Matrix Spike (W2K0485-MS1)	**Source: 2J18018-01**			**Prepared & Analyzed: 11/07/22**						
Glyphosate	ND	5.0	ug/l	25.0	ND		41-149			MS-01
Matrix Spike (W2K0485-MS2)	**Source: 2K02061-01**			**Prepared & Analyzed: 11/07/22**						
Glyphosate	ND	5.0	ug/l	25.0	ND		41-149			MS-01
Matrix Spike Dup (W2K0485-MSD1)	**Source: 2J18018-01**			**Prepared & Analyzed: 11/07/22**						
Glyphosate	ND	5.0	ug/l	25.0	ND		41-149		30	MS-01
Matrix Spike Dup (W2K0485-MSD2)	**Source: 2K02061-01**			**Prepared & Analyzed: 11/07/22**						
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: W2K0933 - EPA 552.3										
Blank (W2K0933-BLK1)				**Prepared: 11/11/22**	**Analyzed: 11/14/22**					
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	*9.70*		*ug/l*	*10.0*		*97*	*70-130*			
LCS (W2K0933-BS1)				**Prepared: 11/11/22**	**Analyzed: 11/14/22**					
Bromochloroacetic acid (bcaa)	10.4	1.0	ug/l	10.0		104	70-130			
Bromodichloroacetic acid (bdcaa)	9.72	1.0	ug/l	10.0		97	70-130			
Chlorodibromoacetic acid (cdbaa)	9.52	1.0	ug/l	10.0		95	70-130			
Dibromoacetic acid (dbaa)	10.2	1.0	ug/l	10.0		102	70-130			
Dichloroacetic acid (dcaa)	10.2	1.0	ug/l	10.0		102	70-130			
Monobromoacetic acid (mbaa)	10.2	1.0	ug/l	10.0		102	70-130			
Monochloroacetic acid (mcaa)	10.0	2.0	ug/l	10.0		100	70-130			
Tribromoacetic acid (tbaa)	9.48	2.0	ug/l	10.0		95	70-130			
Trichloroacetic acid (tcaa)	10.3	1.0	ug/l	10.0		103	70-130			
Surrogate(s)										
2-Bromobutyric acid	*10.1*		*ug/l*	*10.0*		*101*	*70-130*			
Matrix Spike (W2K0933-MS1)	**Source: 2J17001-01**			**Prepared: 11/11/22**	**Analyzed: 11/14/22**					
Bromochloroacetic acid (bcaa)	15.8	1.0	ug/l	10.0	5.16	106	70-130			
Bromodichloroacetic acid (bdcaa)	17.8	1.0	ug/l	10.0	6.49	113	70-130			
Chlorodibromoacetic acid (cdbaa)	12.7	1.0	ug/l	10.0	1.90	108	70-130			
Dibromoacetic acid (dbaa)	12.3	1.0	ug/l	10.0	1.57	107	70-130			
Dichloroacetic acid (dcaa)	19.1	1.0	ug/l	10.0	9.97	92	70-130			
Monobromoacetic acid (mbaa)	12.0	1.0	ug/l	10.0	2.90	91	70-130			
Monochloroacetic acid (mcaa)	10.0	2.0	ug/l	10.0	1.30	87	70-130			
Tribromoacetic acid (tbaa)	10.9	2.0	ug/l	10.0	0.465	104	70-130			
Trichloroacetic acid (tcaa)	22.7	1.0	ug/l	10.0	11.9	108	70-130			
Surrogate(s)										
2-Bromobutyric acid	*10.3*		*ug/l*	*10.0*		*103*	*70-130*			
Matrix Spike Dup (W2K0933-MSD1)	**Source: 2J17001-01**			**Prepared: 11/11/22**	**Analyzed: 11/14/22**					
Bromochloroacetic acid (bcaa)	15.8	1.0	ug/l	10.0	5.16	106	70-130	0.2	30	
Bromodichloroacetic acid (bdcaa)	17.8	1.0	ug/l	10.0	6.49	113	70-130	0.05	30	
Chlorodibromoacetic acid (cdbaa)	12.7	1.0	ug/l	10.0	1.90	108	70-130	0.02	30	
Dibromoacetic acid (dbaa)	12.4	1.0	ug/l	10.0	1.57	108	70-130	0.7	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: W2K0933 - EPA 552.3 (Continued)										
Matrix Spike Dup (W2K0933-MSD1)	**Source: 2J17001-01**			**Prepared: 11/11/22**	**Analyzed: 11/14/22**					
Dichloroacetic acid (dcaa)	18.1	1.0	ug/l	10.0	9.97	81	70-130	6	30	
Monobromoacetic acid (mbaa)	11.6	1.0	ug/l	10.0	2.90	87	70-130	4	30	
Monochloroacetic acid (mcaa)	9.87	2.0	ug/l	10.0	1.30	86	70-130	2	30	
Tribromoacetic acid (tbaa)	11.1	2.0	ug/l	10.0	0.465	106	70-130	2	30	
Trichloroacetic acid (tcaa)	22.1	1.0	ug/l	10.0	11.9	102	70-130	3	30	
Surrogate(s)										
2-Bromobutyric acid	*10.1*		*ug/l*	*10.0*		*101*	*70-130*			

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Project Number: 22K0124

Project Manager: Stephen Berentsen

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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: W2K1117 - EPA 8321A										
Blank (W2K1117-BLK1)				**Prepared & Analyzed: 11/14/22**						
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							
Blank (W2K1117-BLK2)				**Prepared & Analyzed: 11/14/22**						
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 (W2K1117-BS1)				**Prepared & Analyzed: 11/14/22**						
3-Hydroxycarbofuran	4.89	0.50	ug/l	5.00		98	80-120			
Aldicarb	5.48	0.50	ug/l	5.00		110	80-120			
Aldicarb sulfone	5.06	0.50	ug/l	5.00		101	80-120			
Aldicarb sulfoxide	5.10	0.50	ug/l	5.00		102	80-120			
Carbaryl	5.29	0.50	ug/l	5.00		106	80-120			
Carbofuran	5.08	0.50	ug/l	5.00		102	80-120			
Diuron	4.51	1.0	ug/l	5.00		90	68-125			
Methiocarb	5.21	0.50	ug/l	5.00		104	80-120			
Methomyl	5.83	0.50	ug/l	5.00		117	80-120			
Oxamyl	5.42	0.50	ug/l	5.00		108	80-120			
Propoxur (Baygon)	4.69	0.50	ug/l	5.00		94	80-120			
Matrix Spike (W2K1117-MS1)	**Source: 2J25104-01**			**Prepared & Analyzed: 11/14/22**						
3-Hydroxycarbofuran	5.56	0.50	ug/l	5.00	ND	111	65-135			
Aldicarb	5.30	0.50	ug/l	5.00	ND	106	65-135			
Aldicarb sulfone	5.65	0.50	ug/l	5.00	ND	113	65-135			

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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: W2K1117 - EPA 8321A (Continued)										
Matrix Spike (W2K1117-MS1)	**Source: 2J25104-01**			**Prepared & Analyzed: 11/14/22**						
Aldicarb sulfoxide	5.54	0.50	ug/l	5.00	ND	111	65-135			
Carbaryl	4.62	0.50	ug/l	5.00	ND	92	65-135			
Carbofuran	5.25	0.50	ug/l	5.00	ND	105	65-135			
Diuron	4.88	1.0	ug/l	5.00	ND	98	58-160			
Methiocarb	4.93	0.50	ug/l	5.00	ND	99	65-135			
Methomyl	5.02	0.50	ug/l	5.00	ND	100	65-135			
Oxamyl	5.34	0.50	ug/l	5.00	ND	107	65-135			
Propoxur (Baygon)	4.67	0.50	ug/l	5.00	ND	93	65-135			
Matrix Spike Dup (W2K1117-MSD1)	**Source: 2J25104-01**			**Prepared & Analyzed: 11/14/22**						
3-Hydroxycarbofuran	5.25	0.50	ug/l	5.00	ND	105	65-135	6	30	
Aldicarb	4.20	0.50	ug/l	5.00	ND	84	65-135	23	30	
Aldicarb sulfone	4.87	0.50	ug/l	5.00	ND	97	65-135	15	30	
Aldicarb sulfoxide	4.83	0.50	ug/l	5.00	ND	97	65-135	14	30	
Carbaryl	4.26	0.50	ug/l	5.00	ND	85	65-135	8	30	
Carbofuran	4.68	0.50	ug/l	5.00	ND	94	65-135	11	30	
Diuron	4.03	1.0	ug/l	5.00	ND	81	58-160	19	30	
Methiocarb	4.87	0.50	ug/l	5.00	ND	97	65-135	1	30	
Methomyl	4.59	0.50	ug/l	5.00	ND	92	65-135	9	30	
Oxamyl	4.96	0.50	ug/l	5.00	ND	99	65-135	8	30	
Propoxur (Baygon)	4.22	0.50	ug/l	5.00	ND	84	65-135	10	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: W2K0830 - EPA 525.2										
Blank (W2K0830-BLK1)				**Prepared: 11/10/22 Analyzed: 11/15/22**						
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							
Prometryn	ND	0.10	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	*4.88*		*ug/l*	*5.00*		*98*	*50-120*			
Triphenyl phosphate	*5.18*		*ug/l*	*5.00*		*104*	*70-130*			
LCS (W2K0830-BS1)				**Prepared: 11/10/22 Analyzed: 11/15/22**						
Alachlor	8.64	0.10	ug/l	7.50		115	70-130			
Atrazine	4.29	0.10	ug/l	5.00		86	70-130			
Benzo (a) pyrene	5.80	0.10	ug/l	5.00		116	60-130			
Bis(2-ethylhexyl)adipate	5.62	5.0	ug/l	5.00		112	70-130			
Bis(2-ethylhexyl)phthalate	6.31	3.0	ug/l	5.00		126	70-130			
Bromacil	5.20	0.50	ug/l	5.00		104	70-130			
Butachlor	5.98	0.10	ug/l	5.00		120	70-130			
Captan	5.40	1.0	ug/l	5.00		108	70-130			
Chlorpropham	5.16	0.10	ug/l	5.00		103	70-130			
Diazinon	5.00	0.10	ug/l	5.00		100	50-120			
Dimethoate	3.38	0.20	ug/l	5.00		68	50-120			

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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: W2K0830 - EPA 525.2 (Continued)										
LCS (W2K0830-BS1)				**Prepared: 11/10/22**	**Analyzed: 11/15/22**					
Diphenamid	5.23	0.10	ug/l	5.00		105	70-130			
Disulfoton	4.45	0.10	ug/l	5.00		89	50-120			
EPTC	5.48	0.10	ug/l	5.00		110	70-130			
Hexachlorocyclopentadiene	2.22	1.0	ug/l	2.50		89	33-106			
Metolachlor	5.69	0.10	ug/l	5.00		114	60-130			
Metribuzin	5.01	0.10	ug/l	5.00		100	50-120			
Molinate	4.78	0.10	ug/l	5.00		96	70-130			
Prometryn	2.10	0.10	ug/l	5.00		42	30-120			
Simazine	4.19	0.10	ug/l	5.00		84	60-130			
Terbacil	4.26	2.0	ug/l	5.00		85	70-130			
Thiobencarb	4.94	0.10	ug/l	5.00		99	70-130			
Trithion	4.60	0.10	ug/l	5.00		92	70-130			
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene	*4.69*		*ug/l*	*5.00*		*94*	*70-130*			
Perylene-d12	*4.83*		*ug/l*	*5.00*		*97*	*50-120*			
Triphenyl phosphate	*5.49*		*ug/l*	*5.00*		*110*	*70-130*			
Matrix Spike (W2K0830-MS1)	**Source: 2J18018-01**			**Prepared: 11/10/22**	**Analyzed: 11/15/22**					
Alachlor	8.22	0.10	ug/l	7.58	ND	108	70-130			
Atrazine	4.61	0.10	ug/l	5.06	ND	91	70-130			
Benzo (a) pyrene	5.54	0.10	ug/l	5.06	ND	109	60-130			
Bis(2-ethylhexyl)adipate	5.55	5.0	ug/l	5.06	ND	110	70-130			
Bis(2-ethylhexyl)phthalate	5.72	3.0	ug/l	5.06	ND	113	70-130			
Bromacil	5.17	0.50	ug/l	5.06	ND	102	70-130			
Butachlor	5.56	0.10	ug/l	5.06	ND	110	70-130			
Captan	5.55	1.0	ug/l	5.06	ND	110	70-130			
Chlorpropham	5.33	0.10	ug/l	5.06	ND	105	70-130			
Diazinon	5.05	0.10	ug/l	5.06	ND	100	50-120			
Dimethoate	4.03	0.20	ug/l	5.06	ND	80	50-120			
Diphenamid	5.16	0.10	ug/l	5.06	ND	102	70-130			
Disulfoton	4.26	0.10	ug/l	5.06	ND	84	50-120			
EPTC	5.68	0.10	ug/l	5.06	ND	112	70-130			
Hexachlorocyclopentadiene	2.52	1.0	ug/l	2.53	ND	100	33-106			
Metolachlor	5.26	0.10	ug/l	5.06	ND	104	60-130			
Metribuzin	4.99	0.10	ug/l	5.06	ND	99	50-120			
Molinate	4.69	0.10	ug/l	5.06	ND	93	70-130			
Prometryn	2.13	0.10	ug/l	5.06	ND	42	30-120			
Simazine	4.28	0.10	ug/l	5.06	ND	85	60-130			
Terbacil	4.55	2.0	ug/l	5.06	ND	90	70-130			
Thiobencarb	4.57	0.10	ug/l	5.06	ND	90	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: W2K0830 - EPA 525.2 (Continued)										
Matrix Spike (W2K0830-MS1)	**Source: 2J18018-01**			**Prepared: 11/10/22**	**Analyzed: 11/15/22**					
Trithion	4.28	0.10	ug/l	5.06	ND	85	70-130			
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene	*5.02*		*ug/l*	*5.06*		*99*	*70-130*			
Perylene-d12	*4.87*		*ug/l*	*5.06*		*96*	*50-120*			
Triphenyl phosphate	*5.51*		*ug/l*	*5.06*		*109*	*70-130*			
Matrix Spike Dup (W2K0830-MSD1)	**Source: 2J18018-01**			**Prepared: 11/10/22**	**Analyzed: 11/15/22**					
Alachlor	8.17	0.10	ug/l	7.58	ND	108	70-130	0.7	30	
Atrazine	4.66	0.10	ug/l	5.05	ND	92	70-130	1	30	
Benzo (a) pyrene	6.06	0.10	ug/l	5.05	ND	120	60-130	9	30	
Bis(2-ethylhexyl)adipate	5.77	5.0	ug/l	5.05	ND	114	70-130	4	30	
Bis(2-ethylhexyl)phthalate	6.20	3.0	ug/l	5.05	ND	123	70-130	8	30	
Bromacil	4.94	0.50	ug/l	5.05	ND	98	70-130	5	30	
Butachlor	5.82	0.10	ug/l	5.05	ND	115	70-130	5	30	
Captan	5.52	1.0	ug/l	5.05	ND	109	70-130	0.5	30	
Chlorpropham	5.36	0.10	ug/l	5.05	ND	106	70-130	0.6	30	
Diazinon	5.10	0.10	ug/l	5.05	ND	101	50-120	0.9	30	
Dimethoate	4.29	0.20	ug/l	5.05	ND	85	50-120	6	30	
Diphenamid	5.33	0.10	ug/l	5.05	ND	106	70-130	3	30	
Disulfoton	4.41	0.10	ug/l	5.05	ND	87	50-120	3	30	
EPTC	5.55	0.10	ug/l	5.05	ND	110	70-130	2	30	
Hexachlorocyclopentadiene	2.45	1.0	ug/l	2.53	ND	97	33-106	3	30	
Metolachlor	5.27	0.10	ug/l	5.05	ND	104	60-130	0.2	30	
Metribuzin	5.00	0.10	ug/l	5.05	ND	99	50-120	0.1	30	
Molinate	4.64	0.10	ug/l	5.05	ND	92	70-130	1	30	
Prometryn	2.07	0.10	ug/l	5.05	ND	41	30-120	3	30	
Simazine	4.21	0.10	ug/l	5.05	ND	83	60-130	2	30	
Terbacil	4.64	2.0	ug/l	5.05	ND	92	70-130	2	30	
Thiobencarb	4.78	0.10	ug/l	5.05	ND	95	70-130	5	30	
Trithion	4.69	0.10	ug/l	5.05	ND	93	70-130	9	30	
Surrogate(s)										
1,3-Dimethyl-2-nitrobenzene	*4.84*		*ug/l*	*5.05*		*96*	*70-130*			
Perylene-d12	*4.84*		*ug/l*	*5.05*		*96*	*50-120*			
Triphenyl phosphate	*5.62*		*ug/l*	*5.05*		*111*	*70-130*			

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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: W2K0457 - EPA 625.1										
Blank (W2K0457-BLK1)				**Prepared: 11/07/22 Analyzed: 11/12/22**						
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	*15.9*		*ug/l*	*20.0*		*80*	*22-120*			
Nitrobenzene-d5	*14.0*		*ug/l*	*20.0*		*70*	*47-120*			
Terphenyl-d14	*21.5*		*ug/l*	*20.0*		*108*	*44-129*			
LCS (W2K0457-BS1)				**Prepared: 11/07/22 Analyzed: 11/12/22**						
Acenaphthene	16.8	0.10	ug/l	20.0		84	60-132			
Acenaphthylene	17.6	0.10	ug/l	20.0		88	54-126			
Anthracene	17.2	0.10	ug/l	20.0		86	43-120			
Benzo (a) anthracene	18.6	0.10	ug/l	20.0		93	42-133			
Benzo (a) pyrene	13.8	0.10	ug/l	20.0		69	32-148			
Benzo (b) fluoranthene	15.7	0.10	ug/l	20.0		79	42-140			AN-IP
Benzo (g,h,i) perylene	13.7	0.10	ug/l	20.0		69	0.1-195			
Benzo (k) fluoranthene	18.1	0.10	ug/l	20.0		91	25-146			AN-IP
Chrysene	17.0	0.10	ug/l	20.0		85	44-140			
Dibenzo (a,h) anthracene	11.5	0.10	ug/l	20.0		57	0.1-200			
Fluoranthene	17.6	0.10	ug/l	20.0		88	43-121			
Fluorene	18.7	0.10	ug/l	20.0		94	70-120			
Indeno (1,2,3-cd) pyrene	11.4	0.10	ug/l	20.0		57	0.1-151			
Naphthalene	15.2	0.10	ug/l	20.0		76	36-120			
Phenanthrene	16.5	0.10	ug/l	20.0		83	65-120			
Pyrene	17.6	0.10	ug/l	20.0		88	70-120			

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Project Number: 22K0124

Project Manager: Stephen Berentsen

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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: W2K0457 - EPA 625.1 (Continued)										
LCS (W2K0457-BS1)				**Prepared: 11/07/22**	**Analyzed: 11/12/22**					
Surrogate(s)										
2-Fluorobiphenyl	*17.3*		*ug/l*	*20.0*		*86*	*22-120*			
Nitrobenzene-d5	*14.3*		*ug/l*	*20.0*		*72*	*47-120*			
Terphenyl-d14	*20.2*		*ug/l*	*20.0*		*101*	*44-129*			
LCS Dup (W2K0457-BSD1)				**Prepared: 11/07/22**	**Analyzed: 11/12/22**					
Acenaphthene	15.5	0.10	ug/l	20.0		78	60-132	8	30	
Acenaphthylene	13.7	0.10	ug/l	20.0		68	54-126	25	30	
Anthracene	15.2	0.10	ug/l	20.0		76	43-120	13	30	
Benzo (a) anthracene	17.6	0.10	ug/l	20.0		88	42-133	6	30	
Benzo (a) pyrene	11.7	0.10	ug/l	20.0		59	32-148	17	30	
Benzo (b) fluoranthene	15.3	0.10	ug/l	20.0		77	42-140	2	30	AN-IP
Benzo (g,h,i) perylene	13.4	0.10	ug/l	20.0		67	0.1-195	2	30	
Benzo (k) fluoranthene	17.4	0.10	ug/l	20.0		87	25-146	4	30	AN-IP
Chrysene	16.6	0.10	ug/l	20.0		83	44-140	3	30	
Dibenzo (a,h) anthracene	11.4	0.10	ug/l	20.0		57	0.1-200	0.2	30	
Fluoranthene	17.0	0.10	ug/l	20.0		85	43-121	4	30	
Fluorene	17.6	0.10	ug/l	20.0		88	70-120	6	30	
Indeno (1,2,3-cd) pyrene	11.2	0.10	ug/l	20.0		56	0.1-151	2	30	
Naphthalene	14.2	0.10	ug/l	20.0		71	36-120	6	30	
Phenanthrene	15.7	0.10	ug/l	20.0		79	65-120	5	30	
Pyrene	16.9	0.10	ug/l	20.0		85	70-120	4	30	
Surrogate(s)										
2-Fluorobiphenyl	*16.1*		*ug/l*	*20.0*		*81*	*22-120*			
Nitrobenzene-d5	*15.2*		*ug/l*	*20.0*		*76*	*47-120*			
Terphenyl-d14	*19.5*		*ug/l*	*20.0*		*98*	*44-129*			

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Project Number: 22K0124

Project Manager: Stephen Berentsen

Reported:
12/09/2022 16:10

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: W2K1130 - EPA 524.2										
Blank (W2K1130-BLK1)				**Prepared & Analyzed: 11/14/22**						
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: W2K1130 - EPA 524.2 (Continued)										
Blank (W2K1130-BLK1)				**Prepared & Analyzed: 11/14/22**						
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	*8.44*		*ug/l*	*10.0*		*84*	*70-130*			
4-Bromofluorobenzene	*8.04*		*ug/l*	*10.0*		*80*	*70-130*			
LCS (W2K1130-BS1)				**Prepared & Analyzed: 11/14/22**						
1,1,1,2-Tetrachloroethane	4.97	0.50	ug/l	5.00		99	70-130			
1,1,1-Trichloroethane	5.29	0.50	ug/l	5.00		106	70-130			
1,1,2,2-Tetrachloroethane	5.88	0.50	ug/l	5.00		118	70-130			
1,1,2-Trichloroethane	5.11	0.50	ug/l	5.00		102	70-130			
1,1-Dichloroethane	4.17	0.50	ug/l	5.00		83	70-130			
1,1-Dichloroethene	3.57	0.50	ug/l	5.00		71	70-130			
1,1-Dichloropropene	5.32	0.50	ug/l	5.00		106	70-130			

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Project Number: 22K0124

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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: W2K1130 - EPA 524.2 (Continued)										
LCS (W2K1130-BS1)				**Prepared & Analyzed: 11/14/22**						
1,2,3-Trichlorobenzene	4.86	0.50	ug/l	5.00		97	70-130			
1,2,4-Trichlorobenzene	4.82	0.50	ug/l	5.00		96	70-130			
1,2,4-Trimethylbenzene	4.73	0.50	ug/l	5.00		95	70-130			
1,2-Dichloroethane	5.27	0.50	ug/l	5.00		105	70-130			
1,2-Dichloropropane	5.21	0.50	ug/l	5.00		104	70-130			
1,3,5-Trimethylbenzene	4.65	0.50	ug/l	5.00		93	70-130			
1,3-Dichloropropane	5.17	0.50	ug/l	5.00		103	70-130			
2,2-Dichloropropane	5.13	0.50	ug/l	5.00		103	70-130			
2-Butanone	5.39	5.0	ug/l	5.00		108	70-130			
2-Chlorotoluene	5.55	0.50	ug/l	5.00		111	70-130			
2-Hexanone	4.92	5.0	ug/l	5.00		98	70-130			
4-Chlorotoluene	5.75	0.50	ug/l	5.00		115	70-130			
4-Methyl-2-pentanone	4.98	5.0	ug/l	5.00		100	70-130			
Benzene	5.40	0.50	ug/l	5.00		108	70-130			
Bromobenzene	5.06	0.50	ug/l	5.00		101	70-130			
Bromochloromethane	4.96	0.50	ug/l	5.00		99	70-130			
Bromodichloromethane	4.87	0.50	ug/l	5.00		97	70-130			
Bromoform	4.74	0.50	ug/l	5.00		95	70-130			
Bromomethane	4.58	0.50	ug/l	5.00		92	70-130			
Carbon tetrachloride	5.28	0.50	ug/l	5.00		106	70-130			
Chlorobenzene	4.80	0.50	ug/l	5.00		96	70-130			
Chloroethane	5.50	0.50	ug/l	5.00		110	70-130			
Chloroform	5.45	0.50	ug/l	5.00		109	70-130			
Chloromethane	5.11	0.50	ug/l	5.00		102	70-130			
cis-1,2-Dichloroethene	5.35	0.50	ug/l	5.00		107	70-130			
cis-1,3-Dichloropropene	4.66	0.50	ug/l	5.00		93	70-130			
Dibromochloromethane	4.80	0.50	ug/l	5.00		96	70-130			
Dibromomethane	4.72	0.50	ug/l	5.00		94	70-130			
Dichlorodifluoromethane (Freon 12)	4.33	0.50	ug/l	5.00		87	70-130			
Di-isopropyl ether	16.9	2.0	ug/l	20.0		85	70-130			
Ethyl tert-butyl ether	22.4	2.0	ug/l	20.0		112	70-130			
Ethylbenzene	4.56	0.50	ug/l	5.00		91	70-130			
Freon 113	3.55	5.0	ug/l	5.00		71	70-130			
Hexachlorobutadiene	4.71	0.50	ug/l	5.00		94	70-130			
Isopropylbenzene	4.70	0.50	ug/l	5.00		94	70-130			
m,p-Xylene	5.06	0.50	ug/l	5.00		101	70-130			
m-Dichlorobenzene	5.30	0.50	ug/l	5.00		106	70-130			
Methyl tert-butyl ether (MTBE)	15.2	2.0	ug/l	20.0		76	70-130			
Methylene chloride	3.68	0.50	ug/l	5.00		74	70-130			

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Project Number: 22K0124

Project Manager: Stephen Berentsen

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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: W2K1130 - EPA 524.2 (Continued)										
LCS (W2K1130-BS1)				**Prepared & Analyzed: 11/14/22**						
Naphthalene	4.29	0.50	ug/l	5.00		86	70-130			
n-Butylbenzene	4.66	0.50	ug/l	5.00		93	70-130			
n-Propylbenzene	5.41	0.50	ug/l	5.00		108	70-130			
o-Dichlorobenzene	5.21	0.50	ug/l	5.00		104	70-130			
o-Xylene	4.62	0.50	ug/l	5.00		92	70-130			
p-Dichlorobenzene	5.28	0.50	ug/l	5.00		106	70-130			
p-Isopropyltoluene	4.71	0.50	ug/l	5.00		94	70-130			
sec-Butylbenzene	4.92	0.50	ug/l	5.00		98	70-130			
Styrene	4.26	0.50	ug/l	5.00		85	70-130			
Tert-amyl methyl ether	23.5	2.0	ug/l	20.0		117	70-130			
tert-Butylbenzene	4.98	0.50	ug/l	5.00		100	70-130			
Tetrachloroethene	4.52	0.50	ug/l	5.00		90	70-130			
Toluene	4.75	0.50	ug/l	5.00		95	70-130			
trans-1,2-Dichloroethene	3.86	0.50	ug/l	5.00		77	70-130			
trans-1,3-Dichloropropene	4.70	0.50	ug/l	5.00		94	70-130			
Trichloroethene	4.61	0.50	ug/l	5.00		92	70-130			
Trichlorofluoromethane	5.00	0.50	ug/l	5.00		100	70-130			
Vinyl chloride	5.47	0.50	ug/l	5.00		109	70-130			
Surrogate(s)										
1,2-Dichlorobenzene-d4	*11.2*		*ug/l*	*10.0*		*112*	*70-130*			
4-Bromofluorobenzene	*10.8*		*ug/l*	*10.0*		*108*	*70-130*			
LCS Dup (W2K1130-BSD1)				**Prepared & Analyzed: 11/14/22**						
1,1,1,2-Tetrachloroethane	4.67	0.50	ug/l	5.00		93	70-130	6	30	
1,1,1-Trichloroethane	4.17	0.50	ug/l	5.00		83	70-130	24	30	
1,1,2,2-Tetrachloroethane	5.54	0.50	ug/l	5.00		111	70-130	6	30	
1,1,2-Trichloroethane	5.05	0.50	ug/l	5.00		101	70-130	1	30	
1,1-Dichloroethane	3.78	0.50	ug/l	5.00		76	70-130	10	30	
1,1-Dichloroethene	3.63	0.50	ug/l	5.00		73	70-130	2	30	
1,1-Dichloropropene	4.11	0.50	ug/l	5.00		82	70-130	26	30	
1,2,3-Trichlorobenzene	4.69	0.50	ug/l	5.00		94	70-130	4	30	
1,2,4-Trichlorobenzene	4.46	0.50	ug/l	5.00		89	70-130	8	30	
1,2,4-Trimethylbenzene	4.37	0.50	ug/l	5.00		87	70-130	8	30	
1,2-Dichloroethane	4.38	0.50	ug/l	5.00		88	70-130	18	30	
1,2-Dichloropropane	5.12	0.50	ug/l	5.00		102	70-130	2	30	
1,3,5-Trimethylbenzene	4.25	0.50	ug/l	5.00		85	70-130	9	30	
1,3-Dichloropropane	4.98	0.50	ug/l	5.00		100	70-130	4	30	
2,2-Dichloropropane	3.61	0.50	ug/l	5.00		72	70-130	35	30	Q-12
2-Butanone	4.02	5.0	ug/l	5.00		80	70-130	29	30	
2-Chlorotoluene	5.09	0.50	ug/l	5.00		102	70-130	9	30	

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Project Number: 22K0124

Project Manager: Stephen Berentsen

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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: W2K1130 - EPA 524.2 (Continued)										
LCS Dup (W2K1130-BSD1)				**Prepared & Analyzed: 11/14/22**						
2-Hexanone	4.85	5.0	ug/l	5.00		97	70-130	1	30	
4-Chlorotoluene	5.33	0.50	ug/l	5.00		107	70-130	8	30	
4-Methyl-2-pentanone	4.88	5.0	ug/l	5.00		98	70-130	2	30	
Benzene	4.33	0.50	ug/l	5.00		87	70-130	22	30	
Bromobenzene	4.75	0.50	ug/l	5.00		95	70-130	6	30	
Bromochloromethane	3.69	0.50	ug/l	5.00		74	70-130	29	30	
Bromodichloromethane	4.66	0.50	ug/l	5.00		93	70-130	4	30	
Bromoform	4.64	0.50	ug/l	5.00		93	70-130	2	30	
Bromomethane	3.52	0.50	ug/l	5.00		70	70-130	26	30	
Carbon tetrachloride	4.36	0.50	ug/l	5.00		87	70-130	19	30	
Chlorobenzene	4.60	0.50	ug/l	5.00		92	70-130	4	30	
Chloroethane	4.63	0.50	ug/l	5.00		93	70-130	17	30	
Chloroform	3.99	0.50	ug/l	5.00		80	70-130	31	30	Q-12
Chloromethane	5.58	0.50	ug/l	5.00		112	70-130	9	30	
cis-1,2-Dichloroethene	3.82	0.50	ug/l	5.00		76	70-130	33	30	Q-12
cis-1,3-Dichloropropene	4.54	0.50	ug/l	5.00		91	70-130	3	30	
Dibromochloromethane	4.49	0.50	ug/l	5.00		90	70-130	7	30	
Dibromomethane	4.63	0.50	ug/l	5.00		93	70-130	2	30	
Dichlorodifluoromethane (Freon 12)	4.19	0.50	ug/l	5.00		84	70-130	3	30	
Di-isopropyl ether	14.9	2.0	ug/l	20.0		75	70-130	13	30	
Ethyl tert-butyl ether	16.1	2.0	ug/l	20.0		80	70-130	33	30	Q-12
Ethylbenzene	4.24	0.50	ug/l	5.00		85	70-130	7	30	
Freon 113	3.52	5.0	ug/l	5.00		70	70-130	0.7	30	
Hexachlorobutadiene	4.23	0.50	ug/l	5.00		85	70-130	11	30	
Isopropylbenzene	4.32	0.50	ug/l	5.00		86	70-130	8	30	
m,p-Xylene	4.67	0.50	ug/l	5.00		93	70-130	8	30	
m-Dichlorobenzene	5.02	0.50	ug/l	5.00		100	70-130	6	30	
Methyl tert-butyl ether (MTBE)	14.6	2.0	ug/l	20.0		73	70-130	4	30	
Methylene chloride	3.67	0.50	ug/l	5.00		73	70-130	0.2	30	
Naphthalene	4.20	0.50	ug/l	5.00		84	70-130	2	30	
n-Butylbenzene	4.19	0.50	ug/l	5.00		84	70-130	11	30	
n-Propylbenzene	4.93	0.50	ug/l	5.00		99	70-130	9	30	
o-Dichlorobenzene	4.94	0.50	ug/l	5.00		99	70-130	5	30	
o-Xylene	4.34	0.50	ug/l	5.00		87	70-130	6	30	
p-Dichlorobenzene	5.02	0.50	ug/l	5.00		100	70-130	5	30	
p-Isopropyltoluene	4.27	0.50	ug/l	5.00		85	70-130	10	30	
sec-Butylbenzene	4.51	0.50	ug/l	5.00		90	70-130	9	30	
Styrene	4.06	0.50	ug/l	5.00		81	70-130	5	30	
Tert-amyl methyl ether	19.1	2.0	ug/l	20.0		96	70-130	20	30	

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Project Number: 22K0124

Project Manager: Stephen Berentsen

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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: W2K1130 - EPA 524.2 (Continued)										
LCS Dup (W2K1130-BSD1)				**Prepared & Analyzed: 11/14/22**						
tert-Butylbenzene	4.53	0.50	ug/l	5.00		91	70-130	9	30	
Tetrachloroethene	4.24	0.50	ug/l	5.00		85	70-130	6	30	
Toluene	4.64	0.50	ug/l	5.00		93	70-130	2	30	
trans-1,2-Dichloroethene	3.72	0.50	ug/l	5.00		74	70-130	4	30	
trans-1,3-Dichloropropene	4.63	0.50	ug/l	5.00		93	70-130	2	30	
Trichloroethene	4.35	0.50	ug/l	5.00		87	70-130	6	30	
Trichlorofluoromethane	3.70	0.50	ug/l	5.00		74	70-130	30	30	
Vinyl chloride	5.03	0.50	ug/l	5.00		101	70-130	8	30	
Surrogate(s)										
1,2-Dichlorobenzene-d4	*10.6*		*ug/l*	*10.0*		*106*	*70-130*			
4-Bromofluorobenzene	*10.3*		*ug/l*	*10.0*		*103*	*70-130*			

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: W2K1074 - EPA 524.3										
Blank (W2K1074-BLK1)				**Prepared & Analyzed: 11/14/22**						
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	*0.400*		*ug/l*	*0.400*		*100*	*70-130*			
4-Bromofluorobenzene	*0.403*		*ug/l*	*0.400*		*101*	*70-130*			
LCS (W2K1074-BS1)				**Prepared & Analyzed: 11/14/22**						
1,2-Dibromo-3-chloropropane	0.0512	0.010	ug/l	0.0500		102	70-130			
1,2-Dibromoethane (EDB)	0.0547	0.020	ug/l	0.0500		109	70-130			
Surrogate(s)										
1,2-Dichlorobenzene-d4	*0.398*		*ug/l*	*0.400*		*99*	*70-130*			
4-Bromofluorobenzene	*0.400*		*ug/l*	*0.400*		*100*	*70-130*			
Matrix Spike (W2K1074-MS1)	**Source: 2J18018-01**			**Prepared: 11/14/22**	**Analyzed: 11/15/22**					
1,2-Dibromo-3-chloropropane	0.0528	0.010	ug/l	0.0500	ND	106	65-135			
1,2-Dibromoethane (EDB)	0.0540	0.020	ug/l	0.0500	ND	108	65-135			
Surrogate(s)										
1,2-Dichlorobenzene-d4	*0.402*		*ug/l*	*0.400*		*100*	*70-130*			
4-Bromofluorobenzene	*0.397*		*ug/l*	*0.400*		*99*	*70-130*			
Matrix Spike Dup (W2K1074-MSD1)	**Source: 2J18018-01**			**Prepared: 11/14/22**	**Analyzed: 11/15/22**					
1,2-Dibromo-3-chloropropane	0.0508	0.010	ug/l	0.0500	ND	102	65-135	4	30	
1,2-Dibromoethane (EDB)	0.0551	0.020	ug/l	0.0500	ND	110	65-135	2	30	
Surrogate(s)										
1,2-Dichlorobenzene-d4	*0.400*		*ug/l*	*0.400*		*100*	*70-130*			
4-Bromofluorobenzene	*0.397*		*ug/l*	*0.400*		*99*	*70-130*			

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www.wecklabs.com

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

Project Number: 22K0124

Project Manager: Stephen Berentsen

Reported:
12/09/2022 16:10

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.
Q-08	High bias in the QC sample does not affect sample result since analyte was not detected or below the reporting limit.
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-02	The RPD was outside of QC acceptance limits due to possible matrix interference.
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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www.wecklabs.com

CERES Analytical Laboratory, Inc.
4919 Windplay Dr. Suite 1, El Dorado Hills, CA 95762

November 25, 2022 Ceres ID: 15863

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

The following report contains the results for the one waste water sample received on November 9, 2022. 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 # 22K0124.

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
15863-001	22K0124-01	11/9/2022	11/3/2022	11:15

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**		**Date Received:** NA
	QC Batch #: 2766	**Date Extracted:** 11/23/2022
	Matrix: Waste Water	**Date Analyzed:** 11/24/2022
Project ID: 22K0124	**Sample Size:** 1.000 L	

Analyte	Conc. (pg/L)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 3.65	0.772	5.00		13C-2378-TCDD	81.6	31-137	
					CRS			
					37Cl4-2378-TCDD	86.1	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 #: 2766	**Date Extracted:** 11/23/2022
	Matrix: Waste Water	**Date Analyzed:** 11/24/2022
Project ID: 22K0124	**Sample Size:** 1.000 L	

Analyte	Conc. (ng/mL)	Limits (a)	Labeled Standards	% Rec.	Limits (a)
2,3,7,8-TCDD	9.16	7.3-14.6	13C-2378-TCDD	82.7	25-141
			CRS		
			37Cl4-2378-TCDD	82.0	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: 22K0124-01		
Project ID: 22K0124	**Ceres Sample ID:** 15863-001	**Date Received:** 11/9/2022
	QC Batch #: 2766	**Date Extracted:** 11/23/2022
Date Collected: 11/3/2022	**Matrix:** Waste Water	**Date Analyzed:** 11/24/2022
Time Collected: 11:15	**Sample Size:** 0.968 L	

Analyte	Conc. (pg/L)	MDL	RL	Qual.	Labeled Standards	% R	LCL-UCL (a)	Qualifiers
2,3,7,8-TCDD	DL= 1.97	0.772	5.00		13C-2378-TCDD	90.2	31-137	
					CRS			
					37Cl4-2378-TCDD	92.3	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

22K0124

SENDING LABORATORY:

Pat-Chem Laboratories
1824 First Street
San Fernando, CA 91340
Phone: 818-639-5300
Fax: 818-639-5306
Project Manager: Stephen Berentsen

RECEIVING LABORATORY:

Ceres Analytical Laboratoy, Inc
4919 Windplay Dr. Suite 1
El Dorado Hills, CA 95762
Phone :(916) 932-5011
Fax: (888) 932-5011

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 22K0124-01	WASTE Water	**Sampled:03-Nov-22 11:15**	[redacted]	**IPC [MCC] EFF-Quarterly**
Dioxin 2,3,7,8-TCDD 1613 (Su	18-Nov-22 12:00	10-Nov-22 11:15		
Containers Supplied:				

Released By — Date: NOV 07 2022 — Received By — Date: 11/9/22 10:10

Released By — Date — Received By — Date

Sample Receipt Check List Logged by: J (initials)

Ceres ID: 15863	Date/Time: 11/9/22 10:10
Client Project ID: 22K0124	Received Temp: 2.4 °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: 6.5	NA

List COC discrepancies:

J 11/9/22

List Damaged Samples:

J 11/9/22

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

December 6, 2022

Pat-Chem Laboratories
Attn: Stephen Sakai
1824 1st St
San Fernando, CA 91340

Subject: Subcontract Analysis for FGL Lab No. SP 2217613

Enclosed please find results for the following sample(s) which were received by FGL.

- Sub Contracted-Strontium 90 by 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: 2022-12-06

Enclosure

EBERLINE ANALYTICAL

EBERLINE ANALYTICAL CORPORATION
601 SCARBORO ROAD
OAK RIDGE, TENNESSEE 37830
PHONE (865) 481-0683
FAX (865) 483-4621

EBS-OR- 50458

December 6, 2022

Cindy Aguirre
FGL Environmental, Inc.
853 Corporation St
Santa Paula, CA 93060-3005

CASE NARRATIVE
CWB accredited – Lab ID 9257348
Work Order # 22-11047-OR

SAMPLE RECEIPT

This work order contains one water sample received 11/10/2022. Sample was analyzed for Strontium-90.

CLIENT ID	LAB ID
22K0124-01	22-11047-04

ANALYTICAL METHODS

Strontium-90 was analyzed using EPA Method 905.0 Modified.

ANALYTICAL RESULTS

Combined Standard Uncertainty is reported at 1-sigma value.

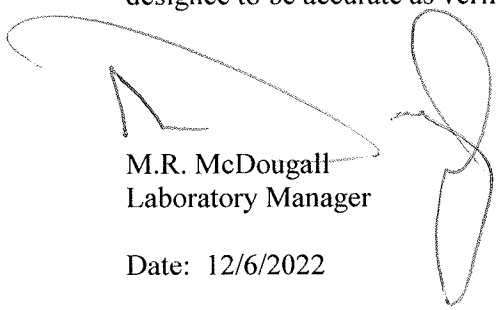
Minimum Detectable Activity (MDA) values for data represented in this report are sample-specific. MDA measurements are determined based on factors and conditions including instrument settings, aliquot size, and matrix type.

STRONTIUM 90

Sample demonstrated acceptable results for all Strontium-90 analyses. Chemical recovery was acceptable for all analyses. The Strontium 90 method blank demonstrated acceptable results. Results for the Strontium-90 duplicate demonstrated a high relative percent difference; however, normalized difference is within acceptable limits for the analytical technique. Results for the Strontium-90 laboratory control sample demonstrated 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: 12/6/2022

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:		Work Order Details:	
Cindy Aguirre		SDG:	22-11047
FGL Environmental, Inc.		Purchase Order:	SP 2217613
853 Corporation St		Analysis Category:	ENVIRONMENTAL
Santa Paula, CA 93060-3005		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
22-11047-01	LCS	KNOWN	11/10/22 00:00	11/10/2022	11/28/2022	22-11047	Strontium-90	EPA 905.0	5.05E+01	2.83E-01			pCi/l
22-11047-01	LCS	SPIKE	11/10/22 00:00	11/10/2022	11/28/2022	22-11047	Strontium-90	EPA 905.0	5.33E+01	1.46E+00	7.39E+00	6.73E-01	pCi/l
22-11047-02	MBL	BLANK	11/10/22 00:00	11/10/2022	11/28/2022	22-11047	Strontium-90	EPA 905.0	1.78E-01	3.22E-01	3.23E-01	6.67E-01	pCi/l
22-11047-03	DUP	22K0124-01	11/03/22 11:15	11/10/2022	11/28/2022	22-11047	Strontium-90	EPA 905.0	2.37E-01	5.74E-01	5.75E-01	1.20E+00	pCi/l
22-11047-04	DO	22K0124-01	11/03/22 11:15	11/10/2022	11/28/2022	22-11047	Strontium-90	EPA 905.0	3.95E-01	7.15E-01	7.17E-01	1.48E+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

EBERLINE ANALYTICAL

EBERLINE ANALYTICAL CORPORATION
601 SCARBORO ROAD OAK RIDGE, TN 37830 865/481-0683 FAX 865/483-4621

ENVIRONMENTAL FGL AGRICULTURAL
Analytical Chemists

Subcontract to Eberline Analytical

22-11047

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 2217613**
Purchase Order:

Sampler(s): N/A

Compositor Setup Date: Time:

REC'D NOV 10 2022

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 by EPA 905.0 250 ml(AGT)								
1	22K0124-01	11/03/2022	11:15	G	W				1								

4

Remarks

Relinquished	Date	Time	Relinquished	Date	Time	Relinquished	Date	Time
[signature]	11/8/22	17:00	UPS	11/10/22	1213			
Received By:	**Date**	**Time**	**Received By:**	**Date**	**Time**	**Received By:**	**Date**	**Time**
UPS			KBarnhart	11/10/22	1213			

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

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San Luis Obispo, CA 93401
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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

January 3, 2023

Lab No. : SP 2217613
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 6 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	(3 pages)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab No.	Matrix
22K0124-01	11/03/2022	11/04/2022	SP 2217613-001	W

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: MKH

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2023-01-03

Corporate Offices & Laboratory
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FAX: (559)734-8435
CA ELAP Certification No. 2810

January 3, 2023

Pat-Chem Laboratories
Attn: Stephen Sakai
1824 1st St
San Fernando, CA 91340

Description : 22K0124-01
Project : 22K0124

Lab No. : SP 2217613-001
Customer No. : 2012670

Sampled On : November 3, 2022 at 11:15
Sampled By : N/A
Received On : November 4, 2022 at 09:31
Matrix : 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	Ul	11/04/2022	17:00	sbl	EPA 314.0	11/04/2022	22:17	sbl

ND=Non-Detected, RL=Reporting Level.

Corporate Offices & Laboratory
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Santa Paula, CA 93060
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San Luis Obispo, CA 93401
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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

January 3, 2023

Pat-Chem Laboratories
Attn: Stephen Sakai
1824 1st St
San Fernando, CA 91340

Description : 22K0124-01
Project : 22K0124

Lab No. : SP 2217613-001
Customer No. : 2012670

Sampled On : November 3, 2022 at 11:15
Sampled By : N/A
Received On : November 4, 2022 at 09:31
Matrix : 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	3.86 ± 2.13	3.23	pCi/L	15/5	h	11/07/2022	08:00	ejc	EPA 900.0	12/29/2022	15:43	amr
Gross Beta	11.9 ± 1.98	2.34	pCi/L		h	11/07/2022	08:00	ejc	EPA 900.0	12/29/2022	15:43	amr
Total Alpha Radium (226)	-0.191 ± 0.225	0.732	pCi/L			11/29/2022	17:30	emv	EPA 903.0	12/01/2022	11:22	amr
Tritium	161 ± 269	434	pCi/L		h	12/09/2022	07:30	amr	EPA 906.0	12/10/2022	01:16	amr
Ra 228	0.000 ± 0.578	0.624	pCi/L			11/28/2022	18:30	emv	EPA RA-05	12/03/2022	13:50	emv

DQF Flags Definition:
U Constituent results were non-detect.
l The MS/MSD did not meet QC criteria.
h 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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January 3, 2023
Pat-Chem Laboratories

Lab No. : SP 2217613
Customer No. : 2012670

Quality Control - Radio

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Radio								
Gross Alpha	900.0	11/07/2022:212639EJC	Blank	pCi/L		ND	<1.9499	
			LCS	pCi/L	126.7	65.9%	50-135	
			MS	pCi/L	126.7	334%	60-140	435
		(SP 2216277-001)	MSD	pCi/L	126.7	303%	60-140	435
			MSRPD	pCi/L	126.7	9.7%	≤30	
			MS	pCi/L	126.7	361%	60-140	435
		(SP 2216277-003)	MSD	pCi/L	126.7	302%	60-140	435
			MSRPD	pCi/L	126.7	17.4%	≤30	
Gross Beta	900.0	11/07/2022:212639EJC	Blank	pCi/L		ND	<1.8226	
			LCS	pCi/L	21.87	108%	60-126	
			MS	pCi/L	21.87	296%	80-130	435
		(SP 2216277-001)	MSD	pCi/L	21.87	244%	80-130	435
			MSRPD	pCi/L	21.87	19.0%	≤30	
			MS	pCi/L	21.87	264%	80-130	435
		(SP 2216277-003)	MSD	pCi/L	21.87	251%	80-130	435
			MSRPD	pCi/L	21.87	4.5%	≤30	
Total Radium	903.0	11/29/2022:212930EMV	RgBlk	pCi/L		0.098136	0.7315	
			LCS	pCi/L	24.37	103%	52-107	
			BS	pCi/L	24.37	101%	43-111	
			BSD	pCi/L	24.37	103%	43-111	
			BSRPD	pCi/L	24.37	1.7%	≤35.5	
Tritium	906.0	12/09/2022:213884AMR	Blank	pCi/L		ND	<433.74	
			LCS	pCi/L	1446	121%	75-125	
			MS	pCi/L	1446	144%	75-125	435
		(SP 2218524-001)	MSD	pCi/L	1446	106%	75-125	
			MSRPD	pCi/L	1446	27.8%	≤25	435
Radium - 228	Ra - 05	11/28/2022:213183EMV	RgBlk	pCi/L		-0.25	3	
			LRS	pCi/L	11.98	72.7 %	65-108	
			BS	pCi/L	11.98	84.2 %	75-125	
			BSD	pCi/L	11.98	93.4 %	75-125	
			BSRPD	pCi/L	11.98	1.1	≤3	

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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.

Page 5 of 6

January 3, 2023

Pat-Chem Laboratories

Lab No. : SP 2217613
Customer No. : 2012670

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
Perchlorate	314.0	11/04/2022:212615SBL	RgBlk	ug/L		0	2	435
			LCS	ug/L	25.00	86.7%	85-115	
			MS	ug/L	25.00	81.4%	80-120	
		(CC 2284191-001)	MSD	ug/L	25.00	76.9%	80-120	435
			MSRPD	ug/L	25.00	5.7%	≤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 6 of 6

SUBCONTRACT ORDER

Pat-Chem Laboratories

22K0124 2217613

SENDING LABORATORY:

Pat-Chem Laboratories
1824 First Street
San Fernando, CA 91340
Phone: 818-639-5300
Fax: 818-639-5306
Project Manager: Stephen Berentsen

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: 22K0124-01	WASTE **Water**	**Sampled:03-Nov-22 11:15**		**IPC [MCC] EFF-Quarterly**
Tritium (Sub)	18-Nov-22 12:00	05-Nov-22 11:15		
Sr-90 (Strontium 90) (Sub)	18-Nov-22 12:00	02-May-23 11:15		
Radium 226 228 (Sub)	18-Nov-22 12:00	02-May-23 11:15		
Perchlorate 314.0 (Sub)	18-Nov-22 12:00	01-Dec-22 11:15		
Gross beta SUB	18-Nov-22 12:00	02-May-23 11:15		
Gross alpha SUB	18-Nov-22 12:00	02-May-23 11:15		
Containers Supplied:				

Released By	Date	Received By	Date
Alex Valle Jr.	NOV 04 2022	MC	11/4/22 9:31
Released By	Date	Received By	Date
ROI 7			

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 2217613**
Purchase Order:

Sampler(s): N/A

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 by EPA 905.0 250 ml(AGT)								
1	22K0124-01	11/03/2022	11:15	G	W				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 2217613

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** / **7C** / _____ / _____ / _____ / _____ / _____

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? [Exception: Oil & Grease, VOA and CrVI verified in lab]	**Yes**	**No**	**N/A**	**FGL**
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 **Matthew Casas** Digitally signed by Matthew Casas Title: Sample Receiving Date: 11/04/2022-16:15:25

Discrepency Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
   Initiated By: _____ Date: _____
   Problem:

   Resolution:

2. Person Contacted: _____ Phone Number: _____
   Initiated By: _____ Date: _____
   Problem:

   Resolution:

(2012670)
Pat-Chem Laboratories
SP 2217613
MDC-11/04/2022-16:15:25

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.#: 22K0124

Customer: IPC - Integrated Performance Consultants, Inc.
Project: (MCC) EFF - Quarterly

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	11/3/22	11:45	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
NOV 0 3 2022

	Signature	Print Name (Company)	Date	Time
Relinquished by		Mario Aguirre (IPC)	11/3/22	11:45
Received by		Cindy Martinez (LT3)	11/3/22	12:56
Relinquished by		Edwin Gonzalez	11/3/22	15:00
Received by				
Relinquished by				
Received in lab by		Alex Wallington	NOV 0 3 2022	1560

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.

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.#: 22K0124

Customer: IPC - Integrated Performance Consultants, Inc.
Project : (MCC) EFF - Quarterly

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 EC =
EFF	11/3/22	11:15	4	Radium-226 & 228 (Sub-Out) Gross Alpha, Gross Beta	Grab	AQ	1L P	4°C	7.5 / 24.4°C
			1	Strontium-90 (Sub-Out)	Grab	AQ	1L P	4°C	
			1	Tritium (Sub-Out)	Grab	AQ	125ml Glass	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
NOV 03 2022
By

Signature	Print Name (Company)	Date	Time
Relinquished by	Mario Aguirre (IPC)	11/3/22	11:45
Received by	Cindy Murray	11-3-22	1145
Relinquished by	Edwin Gonzalez	11-3	15:00
Received by			
Relinquished by			
Received in lab by	Alex Walton Jr	NOV 03 2022	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
Al - $AlCl_3$
Cu - $CuSO_4$

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

INTEGRATED PERFORMANCE CONSULTANTS

202210_mcc_onm Report

Period: 10/01/2022 - 10/31/2022

Date	Name	Job	Task	Notes
10/01/2022	KTV	MCC-MOM	OPR-WTO	Remote SCADA and trend review okay.
10/01/2022	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrating the probe. Collect daily samples Iced and storage.
10/01/2022	BLV	MCC-MOM	GMT-JAN	Cleaned MCC.
10/02/2022	CEA	MCC-MOM	OPR-WTO	Zone 8 alarm responds remotely logged in plant status checks normal, alarm 113 EQT insufficient pump up no corrective action taken.
10/02/2022	KTV	MCC-MOM	OPR-WTO	Remote SCADA and trend review okay.
10/02/2022	EDM	MCC-MOM	SAM-WTO	Took daily EFF sample and prepared sample paperwork for lab pick-up.
10/03/2022	CEA	MCC-MOM	OPR-WTO	Plant process check, review trends activity over the weekend, noticed a slight decrease in influent flows compared to previous weeks probably cause due to ending of summer. Bluff and Legacy parks pumping stations, and IW2 operations check- all normal. | Inspect UV system performance dose is decreasing, will initiate trains 2 and 3 CIP.| UV CIP completed, rotated trains 1-2 in service, train 3 in stand by.
10/03/2022	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. Cleared trash from SC-21XX, SC-23XX, and ME-2220.
10/03/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/03/2022	DFH	MCC-MOM	CMT-ELT	Fire Alarm Communicator - Removed old 3G/4G fire alarm communicator and installed new LTE communicator. Verified communicator signal is good and panel properly booted. Reviewed fire alarm panel programming and found no communication center number tied to the call list. At this time I'm unable to get the communicator registered due to lack of information needed from the communication center.
10/03/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Review recent DigAlerts emails.
10/03/2022	CEA	MCC-MOM	CMT-GLB	With GXK discussing MBT membranes performance and P-75X0 unstable flows, GXK recommended MBR CC. Shut down production and prepare the system for CC, prepare chemicals solution and injected it into membranes, and leave the membranes to soak in chemicals solution for about two hours.
10/03/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/03/2022	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested permeate sample for pH, EC, NH3, NO2, NO3, Alk, and Cl2.
10/03/2022	CEA	MCC-MOM	PMT-INT	Completed equipment calibrations.
10/03/2022	CEA	MCC-MOM	GMT-HSK	Housekeeping electrical room 2000 and MBT blowers room: fumigate for spiders, electrical room 2000 replaced AC controller batteries, reset and restart the AC unit.
10/03/2022	CEA	MCC-MOM	OPR-WTO	Observed MBR #1 CC completed.
10/03/2022	CEA	MCC-MOM	CMT-GLB	B-71X0: Disabled and Hang LOTO to perform regular maintenance inspection. Completed.
10/03/2022	GXK	MCC-MOM	OPR-WTO	Updated the process logs adding lab analysis counts for inventory orders. Placed an order for lab reagents.
10/03/2022	DFH	MCC-MOM	GMT-AUT	DFH truck wash, organization, and tool management.
10/03/2022	CEA	MCC-MOM	CMT-GLB	B-72X0: Disabled and Hang LOTO to perform regular maintenance inspection. Completed.
10/03/2022	CEA	MCC-MOM	CMT-GLB	Membranes CC completed. Resumed aeration process, purged P-73X0, and resumed filtration, monitoring pumps performance.

INTEGRATED PERFORMANCE CONSULTANTS

202210_mcc_onm Report

Period: 10/01/2022 - 10/31/2022

Date	Name	Job	Task	Notes
10/04/2022	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.
10/04/2022	EDM	MCC-MOM	SAM-WTO	Started Weekly A sampling
10/04/2022	EDM	MCC-MOM	SAM-WTO	Took weekly and daily EFF samples and prepared sample paperwork for lab pick-up. Met courier at gate helped sort samples
10/05/2022	CEA	MCC-MOM	OPR-WTO	Plant process check. Bluff and Legacy park pumping stations, and IW2 operations checks.
10/05/2022	CEA	MCC-MOM	SAM-WTO	Conduct plant process MLSS samples analysis.
10/05/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/05/2022	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. Asked CEA to perform MBT chemical clean.
10/05/2022	EDM	MCC-MOM	SAM-WTO	Took Weekly B & Daily EFF samples and prepared sample paperwork for lab pick-up.
10/05/2022	CEA	MCC-MOM	CMT-GLB	Shut down production, set up chemicals (citric acid), and started MBR CC. Chemicals injection 200 Gals. completed.
10/05/2022	CEA	MCC-MOM	OPR-WTO	Received chemicals delivery citric acid, two drums.
10/05/2022	CEA	MCC-MOM	CMT-GLB	Membranes CC completed. Resumed aeration, purged P-73X0, and resumed filtration.
10/05/2022	CEA	MCC-MOM	OPR-WTO	Observe MBR 1 CC acid completed. Plant equipment weekly routine maintenance rotation.
10/06/2022	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log, lab sampling data, and dig alerts. Plant walk, inspected chemical storage, odor control, UV system, upper blower rooms, MBT, headworks, and electrical rooms. Exercised Carpenter Crane Hoist. Cleared trash from SC-2102.
10/06/2022	DFH	MCC-MOM	GMT-HSK	General housekeeping in 2000 and 5000 blocks.
10/06/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs.
10/06/2022	DFH	MCC-MOM	GMT-HSK	General housekeeping in 9300, lower blower room, exterior of OPS, and hydropneumatic system.
10/06/2022	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested permeate sample for pH and EC.
10/06/2022	DFH	MCC-MOM	GMT-HSK	General housekeeping of hydropneumatic area.
10/06/2022	DFH	MCC-MOM	CMT-INT	With KTV, increased OnSpec delay from 10min to 30min and placed system into offspec. Verified BFV-60XX travel and system is in offspec. Removed AIT-4002 inlet and outlet clear tubing and replaced with black tubing. Turbidity spiked from 0.01 to 0.8NTU and after tubing flushed, turbidity is now at 0.011NTU. Placed onspec delay back to 10min and verified BFV-60XX travel, okay.
10/06/2022	DFH	MCC-MOM	GMT-HSK	Stored spare parts in MCC container. Searched for MCC key cores.
10/07/2022	CEA	MCC-MOM	OPR-WTO	Plant process checks, review Bluff park irrigation cycle completed. Make plant routine rounds and equipment checks. Bluff and Legacy parks pumping stations, and IW2 operations checks.
10/07/2022	MAA	MCC-MOM	OPR-WTO	SCADA checks and review. Reviewed logbook.
10/07/2022	JAA	MCC-MOM	CMT-GLB	Continue to panting piping.

INTEGRATED PERFORMANCE CONSULTANTS

202210_mcc_onm Report

Period: 10/01/2022 - 10/31/2022

Date	Name	Job	Task	Notes
10/07/2022	MAA	MCC-MOM	OPR-WTO	Worked on and proposed a schedule change for OIT's for more consistent hour accumulation. Discussed with KTV and JAA. Shared proposed schedule with OIT's and KTV
10/07/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/07/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs.
10/07/2022	CEA	MCC-MOM	OPR-WTO	Chemicals room equipment checks exercise eyewash and showers stations, place Sodium Hypochlorite refill order for next week. Membrane tanks check flushed RAS and WAS lines, and observed membranes priming cycle. MBT process check, prime P-7310 and put it back in rotation, check aeration and membranes blower. Headworks: inspect SC-2320 rinse fine screen and removed solids compactor trash, observed coarse screen cycle- normal.
10/07/2022	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrate the probe. Collect daily samples Iced and storage.
10/08/2022	CEA	MCC-MOM	OPR-WTO	Plant process checks, Bluff and Legacy park pumping stations, and IW2 checks.
10/08/2022	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrating the probe. Collect daily samples Iced and storage.
10/08/2022	BLV	MCC-MOM	GMT-JAN	Cleaned MCC.
10/09/2022	RRV	MCC-MOM	OPR-WTO	0504 Alarm: 113 - EQ Tank Insufficient Pump Up. Alarm coincides with low volume PDPS pump cycle. No problem indicated and no corrective action taken.
10/09/2022	CEA	MCC-MOM	OPR-WTO	Plant operations checks, Bluff and Legacy park pumping stations, and IW2 checks.
10/09/2022	EDM	MCC-MOM	SAM-WTO	Took daily EFF samples and prepared sample paperwork for lab pick-up.
10/10/2022	CEA	MCC-MOM	OPR-WTO	Plant process checks, Bluff and Legacy parks pumping stations checks. Plant routine rounds, chemicals room, upper and lower odor control beds, and equipment checks.
10/10/2022	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log, and lab sampling data.
10/10/2022	CEA	MCC-MOM	OPR-WTO	Headworks equipment checks, inspect coarse screen, SC-2320 inspection, removed solids compactor trash. Check the influent pump station.
10/10/2022	CEA	MCC-MOM	CMT-GLB	Shut down production, disabled blowers, and flushed plugged-up diffuser lines. Enabled aeration and resumed production.
10/10/2022	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.
10/10/2022	CEA	MCC-MOM	OPR-WTO	With GXK, discussed plant process and UV system performance.
10/10/2022	GXK	MCC-MOM	OPR-WTO	Talked to CEA about the UV operation.
10/10/2022	CEA	MCC-MOM	OPR-WTO	Observe MBR1 CC, and repair chlorine feed line leak. Check chemicals tote tanks after refilling.
10/10/2022	DFH	MCC-MOM	CMT-GLB	Running fish tape and pull string through conduit for future replacement of pre-Cl2 tubing.
10/10/2022	DFH	MCC-MOM	CMT-GLB	Continue running fish tape and pull string for future pre-Cl2 tubing replacement.
10/10/2022	DFH	MCC-MOM	SAM-ADM	Inventory and sort new sampling bottles. Removed Q2 COCs, stored Q3, and set up Q4 binders.
10/11/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Review recent DigAlerts emails.

INTEGRATED PERFORMANCE CONSULTANTS

202210_mcc_onm Report

Period: 10/01/2022 - 10/31/2022

Date	Name	Job	Task	Notes
10/11/2022	EDM	MCC-MOM	SAM-WTO	Took daily Weekly A + Daily EFF samples and prepared sample paperwork for lab pick-up. Met Patchem courier and assisted with sorting samples and chains.
10/12/2022	CEA	MCC-MOM	OPR-WTO	Plant process checks. Bluff and Legacy parks pumping stations, and IW2 cheks.
10/12/2022	CEA	MCC-MOM	SAM-WTO	Set up MLSS samples for analysis. Lab equipment housekeeping.
10/12/2022	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.
10/12/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/12/2022	EDM	MCC-MOM	SAM-WTO	Took daily EFF samples + Weekly B Composite samples and prepared sample paperwork for lab pick-up. Rinsed and sanitized sampling collection vessels prepped for next scheduled sampling interval.
10/12/2022	CEA	MCC-MOM	OPR-WTO	MBR1 CC completed. Observed plant equipment weekly rotation, monitoring flow rate and pump speed.
10/12/2022	EDM	MCC-MOM	SAM-WTO	Organized COCs and audited sampling logs for entries.
10/12/2022	GXK	MCC-MOM	OPR-WTO	Started looking into replacement filters for the WaterPro lab RO water system. Labconco charges $2,000 for the RO membrane that I bought for $200 two years ago. I searched through my PO logs and find a similar membrane for $300.
10/13/2022	DFH	MCC-MOM	GMT-DIG	DigAlert A222840679 - No conflicts found. Reviewed Malibu collections plans to see if storm drains are our responsibility as they were already marked out. EDM and I believe that Public Works is responsible.
10/13/2022	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.
10/13/2022	GXK	MCC-MOM	OPR-WTO	Worked on the WaterPro lab RO water system. Opened the covers and traced all the tubing. Cleaned the inlet filter. Tested the system to see which one of the pressure shutoff relays is responsible for the intermittent cycles. Discovered it is the low inlet pressure. Review of the manual revealed the inlet water pressure need to be 40 psi. We are just below that at 35 psi. I experimented with the lab water pressure regulator until I got consistent RO water flow. I increased the lab water pressure to 57 psi. I opened the pre-filter housing and inspected the filter. There is no marking on it so it is hard to know what kind of filter it is. There is very little info coming from Labconco since they want to sell the filters at inflated prices.
10/13/2022	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested permeate sample for pH, EC, NH3, NO2, NO3, Alk, and Cl2.
10/13/2022	GXK	MCC-MOM	OPR-WTO	Continue to research for a suitable replacement for the WaterPro system's pre-filter. I settled on a Pentek EP-20 carbon block filter as the most suitable. Placed an order for two of the system's filters.
10/13/2022	DFH	MCC-MOM	OPR-WTO	Data analysis review with KTV.
10/13/2022	DFH	MCC-MOM	CMT-INT	Picked up ORP standards. Reviewed calibration and replacement with KTV. Attempted to calibrate AIT-3213 with 200mV standard but calibration failed. Replaced ORP probe and calibrated to 200mV standard, okay.
10/14/2022	CEA	MCC-MOM	OPR-WTO	Plant process checks, Bluff and Legacy parks pumping stations, and IW2 checks. Make plant routine rounds. | Review UV system performance and rotate trains priority from 1-2 to 3-1. Organize and housekeeping lab equipment.

INTEGRATED PERFORMANCE CONSULTANTS

202210_mcc_onm Report

Period: 10/01/2022 - 10/31/2022

Date	Name	Job	Task	Notes
10/14/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/14/2022	CEA	MCC-MOM	CMT-MET	The fine screen makes a knocking noise when turning, enabling SC-2320 and taking SC-2310 out of service for investigation; inspect fine screen drum, adjusted fine screen stabilizer wheels but still make noises, further investigation revealed bad front trunnion wheels.
10/14/2022	CEA	MCC-MOM	CMT-MET	Disabled unit at LCP and hang LOTO. Replaced FR and FL trunnions wheels. Removed LOTO and enabled unit for testing, fine screen running smooth noise disappeared. Pick up and clean the job site.
10/14/2022	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. Continue with the orders of replacement filters for the WaterPro lab RO water system.
10/14/2022	CEA	MCC-MOM	SAM-WTO	Collect Eff daily samples and set up a cooler for lab courier pick up.
10/14/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/14/2022	CEA	MCC-MOM	CMT-GLB	Exercise pump manually ran for a few seconds at 58 Hz. flow > 500 gpm. Eff quality is poor after pump testing caused by the introduction of unhealthy MLSS from bio1 into the process. Monitoring Eff quality, recalibrating AIT - 5100.
10/14/2022	GXK	MCC-MOM	OPR-WTO	UVT dropped to below 65% following CEA exercise of P3160. I flipped the off-spec valves and added a third UV train. I increased the A ratio from 1.25 to 2 for production flow rate of 105 GPM. I flushed the membrane system for 30 minutes, bringing the UVT back to 67%. Reversed the changes for normal production. Noticed P1250 speed feedback is not trending right on Ignition and in the pump display. Continue working on lab reagent orders.
10/14/2022	CEA	MCC-MOM	OPR-WTO	With GXK, discussing plant biological processes, data trends analysis, and P-3160 exercise bypassing MBR filtration process.
10/14/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/14/2022	GXK	MCC-MOM	OPR-WTO	Continue with lab reagents inventory and ordering.
10/14/2022	BLV	MCC-MOM	GMT-JAN	Cleaned MCC
10/15/2022	JAA	MCC-MOM	SAM-WTO	Collect daily samples Iced and storage. Perform pH and EC test after calibrating the probe. File COC's into corresponding files.
10/15/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs.
10/16/2022	EDM	MCC-MOM	SAM-WTO	Took daily EFF samples and prepared sample paperwork for lab pick-up.
10/16/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs. Increased P8130 multiplier from 0.09 to 0.1.
10/17/2022	CEA	MCC-MOM	CMT-MET	Replaced bad trunnions wheels (bad bearings) RR and RL.
10/17/2022	CEA	MCC-MOM	SAM-WTO	Collect plant daily Effluent compliance samples for lab analysis, and set up a cooler for PCL pick up.
10/17/2022	CEA	MCC-MOM	CMT-MET	Replaced bad bearings stabilizer wheels.
10/17/2022	CEA	MCC-MOM	OPR-WTO	Observed MBR1 CC completed. Housekeeping headworks equipment. Updating plant logs.

INTEGRATED PERFORMANCE CONSULTANTS

202210_mcc_onm Report

Period: 10/01/2022 - 10/31/2022

Date	Name	Job	Task	Notes
10/17/2022	GXK	MCC-MOM	OPR-WTO	One of the filters I ordered for the WaterPro RO water system last week arrived broken. I contacted the seller for a replacement.
10/17/2022	CEA	MCC-MOM	OPR-WTO	Plant operations checks, daily routine rounds; chemicals room, Headworks, and MBT process.| Bluff and Legacy parks, and Iw2 checks.
10/17/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs.
10/18/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Review recent DigAlerts emails.
10/18/2022	EDM	MCC-MOM	SAM-WTO	Took Weekly A / Monthly / Daily samples and prepared sample paperwork for lab pick-up.
10/18/2022	EDM	MCC-MOM	SAM-WTO	Collected samples and prepared paperwork for lab pick-up. Took daily pH and EC measurements after calibrating both cells, EC was found with expired calibration.
10/18/2022	EDM	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/18/2022	EDM	MCC-MOM	GMT-HSK	Housekeeping at 7000, deck scrub, rinse and disinfection
10/19/2022	DFH	MCC-MOM	GMT-DIG	DigAlert B222900587, no conflict found. DigAlert B222900029, conflict found with 2"FO, 8"RW, and 14" SS.
10/19/2022	DFH	MCC-MOM	GMT-AUT	Brake inspection at Akey Brakey for 2017 Ford F-350. Consulted with MAA on estimate of work.
10/19/2022	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. Maintenance of the chlorine analyzer.
10/19/2022	CEA	MCC-MOM	OPR-WTO	Plant operations checks. Bluff and Legacy parks pumping stations, and IW2 checks.
10/19/2022	EDM	MCC-MOM	SAM-WTO	Took daily and weekly samples, prepared for pickup by PatChem
10/19/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/19/2022	CEA	MCC-MOM	SAM-WTO	Conduct MLSS samples lab analysis.
10/19/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/19/2022	DFH	MCC-MOM	GMT-AUT	Picked up F350 from Akey Brakey.
10/19/2022	EDM	MCC-MOM	SAM-WTO	Prepared Hach composite samplers for next round of composite sampling
10/19/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/19/2022	CEA	MCC-MOM	OPR-WTO	Monitoring Eff quality after MBR1 acid CC is completed and back in production: UV system performance train 1 dose dropped below 80 mJ and UVT also dropped below 65%. Set up off-spec request bypass for 30 minutes, perform UV train 2 CIP, and changed trains priority from 1-3-2 to 2-3-1.
10/20/2022	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. Started working on the WaterPro lab RO water system. Contacted Harbor Freight about the wrong item delivery.
10/20/2022	GXK	MCC-MOM	OPR-WTO	Continue working on the WaterPro lab RO water system. Cleaned and replaced all filters.
10/21/2022	CEA	MCC-MOM	OPR-WTO	Plant operations and equipment checks made routine rounds. Bluff Park irrigation cycle completed. UV performance check, prepare UV train 1 for CC. Bluff and Legacy parks pumping station checks.

INTEGRATED PERFORMANCE CONSULTANTS

202210_mcc_onm Report

Period: 10/01/2022 - 10/31/2022

Date	Name	Job	Task	Notes
10/21/2022	DFH	MCC-MOM	GMT-DIG	With MAA, DigAlert for A222930916- no conflict found. DigAlert A222930689 and A222930195 have conflicts, marked out S, SFM, FO, RW, and LAT delineations.
10/21/2022	MAA	MCC-MOM	GMT-DIG	With DFH training on Dig alerts. Observed and assisted with Dig alters A222930916- no conflict found. DigAlert A222930689 and A222930195 have conflicts, marked out S, SFM, FO, RW, and LAT delineations.
10/21/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/21/2022	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 waterpro lab water system and made some adjustments to the reject ratio.
10/21/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/21/2022	CEA	MCC-MOM	CMT-MET	Replaced burst coolant hose located on the discharge side of the engine heater. Refill the radiator with the coolant but not enough on hand, place an order for coolant at Quinn Cat to pick it up the same day. Cleaned up and hung the DO NOT OPERATE tag.
10/21/2022	JRW	MCC-MOM	GEN-TRN	Returned to IPC North to meet with KTV for training orientation overview & to go over MCC's daily effluent water test/procedures.
10/21/2022	DFH	MCC-MOM	CMT-GLB	Travel to Quinn CAT to pick up coolant for generator.
10/21/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Inspected the big coolant leak from the generator with CEA. can't really pin point the source of the leak since it is behind a pump. Asked CEA to report it to RRV ASAP and see how he wants to proceed.
10/21/2022	CEA	MCC-MOM	CMT-MET	Topped off the radiator with coolant and perform an inspection revealing coolant leaking, the leak is near the water pump but I could not exactly locate the source of the leak. With GXK continue looking for coolant leaks unsuccessfully. GXK disabled the engine heater for now.
10/22/2022	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrating the probe. Collect daily samples Iced and storage.
10/22/2022	BLV	MCC-MOM	GMT-HSK	Cleaned MCC.
10/23/2022	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
10/23/2022	GXK	MCC-MOM	OPR-WTO	Contacted RRV to verify he is aware of the out of service generator and the expected safety power outages.
10/23/2022	RRV	MCC-MOM	OPR-WTO	Checked generator. I can't pinpoint the source of the coolant leak, and since there is a PSPS tentatively scheduled for 2100 hrs in the Malibu area, I ordered a 200 kw rental generator from Sunbelt. It will arrive within a few hours. The PSPS is only supposed to affect the Galahad and Cuthbert circuits, so MCC should be unaffected, but I decided to get the generator just in case. MCC is on the Tuna circuit. I also ordered emergency generator service from Duthie Power for tomorrow, so we can get the coolant leak fixed. Received generator at 1930 hrs.
10/24/2022	CEA	MCC-MOM	OPR-WTO	Plant process check, review process trends, and plant make routine rounds. Bluff and Legacy parks pumping stations, and IW2 checks.
10/24/2022	KTV	MCC-MOM	OPR-WTO	Followed up with Duthie on getting an immediate visit. Tech is scheduled to arrive between 0900 to 0930 this morning.

INTEGRATED PERFORMANCE CONSULTANTS

202210_mcc_onm Report

Period: 10/01/2022 - 10/31/2022

Date	Name	Job	Task	Notes
10/24/2022	CEA	MCC-MOM	OPR-WTO	MBT and Headworks operations checks: Inspection of SC-2310, flushed sprayers, and removed solids compactor trash. Coarse screen check, removed chute solids trash.
10/24/2022	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. Inspected generator leaking coolant. Review recent DigAlerts emails.
10/24/2022	CEA	MCC-MOM	CMT-GLB	Housekeeping cleaned the leaked coolant inside the generator compartment. With Duthie tech inspect the generator's condition and explained the possible source of the leaking coolant.
10/24/2022	CEA	MCC-MOM	SAM-WTO	Collect Eff daily samples and prepare a cooler for lab courier pick up. Conduct MLSS samples analysis.
10/24/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/24/2022	CEA	MCC-MOM	OPR-WTO	Observed MBR1 CC competition, and check chemicals feed dose and equipment operations. Picked up and cleaned generator supplies and storage in the MCC container bay 2.
10/24/2022	JRW	MCC-MOM	GMT-HSK	Drove to IPC North to move all carbon bags into storage, then assisted Ric with changing tire.
10/24/2022	GXK	MCC-MOM	OPR-WTO	Follow up with Duthie technician. Looked into purchasing of additional high-pressure hose for the generator coolant heater.
10/24/2022	GXK	MCC-MOM	OPR-WTO	Review the generator switchgear with RRV and made plans for the connection of the portable generator.
10/25/2022	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. Started MBT CIP using 0.2% sodium hypochlorite solution.
10/25/2022	EDM	MCC-MOM	SAM-WTO	Took daily EFF samples and prepared sample paperwork for lab pick-up. Calibrated HACH unit took daily pH and EC reads and added results to log
10/25/2022	GXK	MCC-MOM	OPR-WTO	Continue with MBT CIP. Clean up in the lab. lab supplies inventory and purchases.
10/25/2022	GXK	MCC-MOM	OPR-WTO	Completed MBT CIP. Restarted MBT production. Attempted to rack out the generator breaker. Since I didn't power down the rack power by opening the tie breaker and main breaker, it resulted in an automatic trip of both tie and main breakers. Troubleshoot the issues with RRV.
10/25/2022	GXK	MCC-MOM	OPR-WTO	After watching some training videos of the operations of the breakers, we ended up leaving the generator breaker cranked out and changed the switchgear from auto to manual operation until we can connect and test the portable generator.
10/26/2022	CEA	MCC-MOM	OPR-WTO	Plant process check. MBT enabled aeration and resumed filtration. Bluff and Legacy Parks pumping stations and IW2 operations checks.

INTEGRATED PERFORMANCE CONSULTANTS

202210_mcc_onm Report

Period: 10/01/2022 - 10/31/2022

Date	Name	Job	Task	Notes
10/26/2022	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. Started working on the connection of the portable generator. After review of the manual and watching training videos, I attempted to rack out the generator breaker. After three turns of the lever, it caused a trip of the main and tie breakers and powered the plant down. So, I learned that opening the breaker is not enough for racking it out. We probably have to open the main and tie breakers before doing so. In any case, after some troubleshooting RRV changed the switchgear from Auto to manual and then we were able to connect the main, and the tie breaks back into service.
10/26/2022	CEA	MCC-MOM	SAM-WTO	Prepare MLSS samples for lab analysis.
10/26/2022	CEA	MCC-MOM	OPR-WTO	Monitoring plant equipment operation after a brief power outage, reset the chemicals feed pump, and resumed chemicals feed. Cleared MBT process alarms, enabled aeration, and resumed filtration.
10/26/2022	GXK	MCC-MOM	OPR-WTO	Troubleshoot network issues. Continue working on the connection of the portable generator. Opened the standby generator main breaker panel. First, attempted to remove the line side from the standby generator and replace them with the portable generator cables. But the line side was done at the CAT factory and was too tight. So we decided to connect the portable generator to the load side terminals instead of one of the 3 cables that go out to the switch gear. I also needed a set screw log for connecting the ground cable. I searched online and found the correct size.
10/26/2022	CEA	MCC-MOM	SAM-WTO	Collect weekly B and daily compliance samples, and prepare cooler for lab courier pick up.
10/26/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/26/2022	CEA	MCC-MOM	OPR-WTO	Observed MBR1 acid CC completed. Check with GXK on the generator repairs status.
10/26/2022	GXK	MCC-MOM	OPR-WTO	Stopped at an electrical supplies store to get the set screw logs for the ground cable of the portable generator. Completed all the portable generator cables connections. Closed the main breaker panel. review the generator operation manual. We still have severe network issues. tried to reboot all the network equipment.
10/27/2022	EDM	MCC-MOM	SAM-WTO	Organized and audited sampling sign entries and filed COCs
10/27/2022	GXK	MCC-MOM	OPR-WTO	Continue working on the generator. Marked the cables, closed the breaker panel cover, and opened the side panel.
10/27/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Increased P-8130 multiplier from 0.07 to 0.11 due to low chlorine residual. Review recent DigAlerts emails. Continue working on connecting the portable generator. Layed down the cables and mark them.
10/27/2022	JRW	MCC-MOM	SAM-WTO	Returned to IPC North to complete MCC's daily sample collection.
10/27/2022	GXK	MCC-MOM	OPR-WTO	Continue to work with RRV on the connection of the portable generator. I prepared the plant for shutdown, lowering the post-anox tank by putting both P1250 and P1220 in OFF. We used train 1 pre-anox mixer to check the current rotation of the electrical phases. It was CCW (L1-L2-L3 or YOB). Next, we need to test the phase rotation of the portable generator.
10/27/2022	GXK	MCC-MOM	OPR-WTO	While working on the generator the network issues deteriorated and we lost connection to PLC2, 3, and 5. We started troubleshooting and involved DXP. Manually monitored INF and EQT levels. Everything is still working fine on the local level but I now can't put P1250 and P1220 back into service via Ignition controls. RRV attempt to connect via logic control program.

INTEGRATED PERFORMANCE CONSULTANTS

202210_mcc_onm Report

Period: 10/01/2022 - 10/31/2022

Date	Name	Job	Task	Notes
10/28/2022	CEA	MCC-MOM	OPR-WTO	Plant process check reviewed data trends, and discussed with KTV missing trends on the previous day. Bluff and Legacy park pumping stations, and IW2 checks.
10/28/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
10/28/2022	CEA	MCC-MOM	OPR-WTO	MBT: the production process in stand-by mode, enables the aeration process, purges P-73X0, and resumed filtration. Headworks equipment checks.
10/28/2022	CEA	MCC-MOM	OPR-WTO	Monitoring plant process, influent and EQ tanks levels, Headworks, and MBR scada system off line.
10/28/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Review recent DigAlerts emails. Talk to KTV about the current network issues status.
10/28/2022	CEA	MCC-MOM	OPR-WTO	With GXK discussed MBT performance, network issues, and temp generator status. Inspect upper and lower odor control beds, and measure NH3 and H2S levels zero.
10/28/2022	KTV	MCC-MOM	OPR-WTO	Zone 6 Alarm - remote check showed high turbidity and both MBR and UV not running. Further investigation showed both MBR blowers had tripped. Arrived onsite and found CD10 fault code - ethernet communications time out. Also found aeration blowers running at a higher than normal speed. Forced aeration blower rotation and speed returned to normal. Keypad reset of B-46X0 appeared to work at the VFD, but was still interpreted as an external fault at the MBR HMI. Cycled power to B-46X0 and reset MBR alarms. MBR started up normally. Monitored system to verify proper EQ flow control before leaving the site.
10/29/2022	CEA	MCC-MOM	OPR-WTO	Received and acknowledged multiple zone 8 alarms last night, after several attempts to connect remotely with no success decided to drive to the site for further investigation. Plant status checks - okay, no active alarms. Review logbook activity
10/29/2022	KTV	MCC-MOM	OPR-WTO	Notified by CEA that he can't access the site remotely. Checked and was able to access through VPN, although logmein isn't working on the onsite PC. Helped CEA with VPN access through RDC.
10/29/2022	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrating the probe. Collect daily samples Iced and storage.
10/29/2022	BLV	MCC-MOM	GMT-JAN	Cleaned MCC.
10/29/2022	RRV	MCC-MOM	OPR-WTO	Process review. Completed portable generator wiring, started up unit, and checked rotation. Rotation is CW, vs CCW for WTP, but L1 and L3 cables are swapped, so when generator is providing power to the switchgear, it will be CCW, as required. I left my rotation meter connected to BIO2 Post Anoxic Mixer 2, where it is indicating CCW rotation. Regardless of expectation, in the event we need to operate the generator, all equipment should be switched off locally at each MCC, except BIO2 Post Anoxic Mixer 2, which should be tested for rotation under generator power and confirmed as CCW prior to starting up any other WTP equipment.
10/29/2022	RRV	MCC-MOM	GEN-TRV	Travel from MCC to 603. Stopped at 9297 on the way and dropped off Digi router for DXP to test various configurations for permanent implementation MCC to resolve the recent Cisco router failure.
10/30/2022	RRV	MCC-MOM	OPR-WTO	0749 Alarm: 0113 - EQ Tank Insufficient Pump Up. Alarm coincides with an influent pump cycle. Trend is normal so there is nothing unusual going on. No action taken. Ack'd alarm and cleared the telltale tag.
10/30/2022	CEA	MCC-MOM	OPR-WTO	Plant status check - okay. Bluff and Legacy Park pumping stations, and IW2 checks.
10/30/2022	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

INTEGRATED PERFORMANCE CONSULTANTS

202210_mcc_onm Report

Period: 10/01/2022 - 10/31/2022

Date	Name	Job	Task	Notes
10/30/2022	RRV	MCC-MOM	OPR-WTO	1138 Alarm: Zone 8 - No tag. The current assumption, after conferring with KTV, is that it is a comm fail alarm that resolves itself. We will have to do something about it, but it can wait until normal business hours unless it becomes a significant nuisance.
10/30/2022	RRV	MCC-MOM	OPR-WTO	Continued to receive random Zone 8 alarm with no tag through the afternoon. KTV was getting them as well, which made it harder to determine the cause, but eventually I began to suspect that although we were acknowledging the alarm it was never going away. Looked at alarm logic for every PLC connected to Z8 and traced problem to high MLSS in BIO2. MLSS has trended upward since about Oct 7th, starting slowly, but then increasing rapidly starting on Oct 28th. The two distinct periods of MLSS increase roughly coincide with two distinct periods of filtrate decrease, so it looks intentional. so I'm not going to intervene until I speak with KTV and GXK. In the meantime, I increased the MLSS HiHi alarm from 10,000 to 12,000 and increased the MLSS Hi alarm from 9,500 to 11,500. MLSS is currently running around 10,200.
10/30/2022	KTV	MCC-MOM	OPR-WTO	Repeated alarms throughout the day. A few were false EQ tank insufficient pump up, but many of the alarms were not indicated on SCADA. Further investigation is required, but the only possibility I can think of is an intermittent communications issue that is generating the alarm and clearing before I can log in.
10/31/2022	MAA	MCC-MOM	OPR-WTO	Reviewed logs. Reviewed SCADA, noticed several alarms. Headworks panel intrusion and DO out of range at BIO2. Discussed with KTV. Walked through Headworks; ok.
10/31/2022	MAA	MCC-MOM	OPR-TRN	Reviewed pending wiring work with KTV. Training on basic AB Logic.
10/31/2022	KTV	MCC-MOM	OPR-WTO	Reviewed generator issues with MAA. Gave generator technician access to the generator to replace the water pump. Reviewed maintenance plans for the week with MAA. Reviewed wire that needs to be pulled in electrical room 6 and the lab. Worked with DXP remotely on networking issues.
10/31/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Talked to the Dutie technicians and observed their work. Talked with KTV about the network status. Inspected the network communication rack, trying to figure out how components are connected. Plant walk inspecting headworks, MBT, electrical rooms, HP system, UV system, Online analyzers, Odor control system, and chemicals room. Review recent DigAlerts emails.
10/31/2022	MAA	MCC-MOM	OPR-TRN	With KTV, assisted in finding physical location of conduit PX5915 wiring on field. Continued training on AB scripted text logic.
10/31/2022	GXK	MCC-MOM	OPR-WTO	Initiated MBT CIP using 1% citric acid solution. Collected daily EFF samples for lab analysis. Supervise generator repairs.
10/31/2022	GXK	MCC-MOM	OPR-WTO	Completed MBT CIP, primed the pumps, and restarted the system.
10/31/2022	MAA	MCC-MOM	OPR-TRN	Continued searching for wiring of conduit X5915 in field, did not find.
10/31/2022	MAA	MCC-MOM	GMT-HSK	Housekeeping. Vacuumed vents and general area around PLC6 and server rack.
10/31/2022	DFH	MCC-MOM	CMT-MET	Troubleshooting upper lift master gate, error code 61 with gates locked in open position. Researched error codes in O&M and verified eye sensors are clear and aligned. Verified connectors are clean and reseated but still unable to get error code to clear. Power cycled right operator and tested operation, okay. Power cycled left operator and tested, okay.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/01/2022	JAA	MCC-MOM	OPR-WTO	Check systems and review SCADA.
11/01/2022	KTV	MCC-MOM	OPR-WTO	Reviewed scope of work for today with JRW and JAA. Tested the apparently hardwired zone 5 on the alarm dialer, but it doesn't appear to be connected to anything now. Review of logs indicates that at one point it may have been connected to the membranes. There's a period of time during start-up where the alarms for high-level and comm fail were hardwired to the dialer. At some point between then and now, the wiring was changed. Test ran generator okay. With JAA, reviewed wiring that needed to be undone to remove the portable generator and get the site generator back online. JAA will get the wiring complete, and afterward we will shut down the plant for testing.
11/01/2022	JAA	MCC-MOM	OPR-TRN	Training with KTV how remote dialer works and operates.
11/01/2022	KTV	MCC-MOM	OPR-WTO	Reviewed emails from DXP on ignition issues. Checked alarms configuration and notification pipeline. Disabling the alarm pipeline properly is going to take some time, so will delay that until tomorrow. Checked historical tag issue, and it appears to be related to the UDT configuration, but further investigation is required. Worked on generator with GXK and JAA. Reviewed switchgear status with GXK before he left site.
11/01/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Review recent DigAlerts emails. Inspected MBT system. P7310 failed on flow by 19:00 last night. P7320 continues running at 50% of time SP. The average flow rate was only 2 GPM while the SP is 4 GPM. I scheduled 10kGal hauling, half today and half tomorrow. Inspected JAA work on the disconnection of the portable generator and reconnection of the permanent cables. Increased p8130 multiplier from 0.09 to 0.11 due to low chlorine residual.
11/01/2022	JAA	MCC-MOM	OPR-GLB	By KTV and GXK supervision disconnect portable generator from the main generator of the plant. Reconnect cable from the main generator.
11/01/2022	KTV	MCC-MOM	OPR-WTO	Discussed generator issues with RRV. Continued PLC6 alarms review while JAA took samples. Got more information on the failure from Duthie and reported to RRV.
11/01/2022	JAA	MCC-MOM	OPR-TRN	Train and observe how KTV shut down plant to test and reinstall generator back to service.
11/01/2022	JAA	MCC-MOM	OPR-GLB	Continue painting UV light unit piping.
11/01/2022	KTV	MCC-MOM	OPR-WTO	Shut down the plant systematically in order after samples - PLC7, PLC4, PLC5, PLC6, PLC3, PLC2. Shortened MBR clean from 8 iterations to 2 so that it would end before shutting down power to the plant. Once plant was shut down, opened main breaker, racked in generator breaker, verified all breakers in the correct position and set the switchgear to AUTO. This allowed the main and generator breakers to swap - main opened and generator closed. Then put the generator in AUTO and restarted the plant. Ran the plant off the generator for about 30 min, and then closed the main breaker while leaving the switchgear in AUTO. After the stable power countdown, power switched back to utility. This caused a few hard trips, so went ahead and reset everything and verified plant running properly before leaving site.
11/02/2022	KTV	MCC-MOM	CMT-ELT	Alarm Dialer - reviewed current installation understanding with MAA and JAA. Started adding terminals to PLC6 LCP to clean up the wiring for the dialer and make it more clear to maintain the original wiring and be able to rewire it later.
11/02/2022	MAA	MCC-MOM	OPR-WTO	Reviewed logs and SCADA. Walkthrough of WTP and electrical rooms.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/02/2022	GXK	MCC-MOM	OPR-WTO	Fixed the upper gate obstruction sensor to allow the gate to close. Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Noticed the MBRs were not doing backwash since yesterday's plant restart. Inspected the HMI and found both FIT4112 and FIT4212 had an out-of-range alarm latched. I reset the alarms and monitored MBR cycle. Lowered P8130 multiplier to 0.07 due to high chlorine residual. Review recent DigAlerts emails.
11/02/2022	MAA	MCC-MOM	SAM-WTO	MLSS analysis for BIO2 and MBT.
11/02/2022	KTV	MCC-MOM	PRG-PLC	Set up outputs for testing dialer wiring. Found zone 4 and 5 always in alarm and zone 2 and 3 never in alarm.
11/02/2022	JAA	MCC-MOM	OPR-GLB	With MAA, running conductor cable for fire alarm through conduit to PLC6 panel.
11/02/2022	MAA	MCC-MOM	CMT-INT	With JAA, Re-wiring alarm dialer to PLC6 panel and running conductor cable for fire alarm through conduit to PLC6 panel.
11/02/2022	GXK	MCC-MOM	PRG-PLC	Review the UV system logic on PLC 5. I was focused on the logic controlling UV3 UVILow and MS2REDLow alarm bits. Found that it comes from reading the communication buffer of the CCB outside. I compared UV3 to UV1 which doesn't have this issue. As soon as UV3 UVI is lower than 2 mW/cm^2 the PLC receives a signal of low UVI and low MS2RED. The signal lasts only a few sec but the PLC latches these alarms. I intercepted these bits from the CCB and added a delay timer of 15 sec before the PLC latch the alarm. Next, I investigated the ballast power control logic. UV3 still jumps to 100% power every two minutes or so. The ballast logic is so convoluted and I can't find the source of the command. I compared the logic of UV1 and UV3 and I can't find any difference.
11/02/2022	CEA	MCC-MOM	OPR-WTO	Plant process check reviewed logbook activity. Bluff and Legacy park pumping stations, and IW2 checks.
11/02/2022	KTV	MCC-MOM	CMT-ELT	Alarm Dialer - reviewed finished wiring and test results with MAA and JAA. Started investigating further and found an unusual splice that appears to be for crossover. Reviewed socket installation and possible daisy chaining with MAA so he can further investigate.
11/02/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/02/2022	MAA	MCC-MOM	SAM-WTO	Trained JAA in weekly B EFF and INF sampling. Took daily and weekly B samples.
11/02/2022	JAA	MCC-MOM	SAM-WTO	With MAA collect weekly B EFF and INF comp samples.
11/02/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/02/2022	MAA	MCC-MOM	OPR-TRN	With KTV and JAA, discussed MBT MLSS and wasting process.
11/02/2022	JAA	MCC-MOM	OPR-WTO	With KTV and MAA discuss MBT MLSS and wasting process.
11/02/2022	MAA	MCC-MOM	CMT-INT	Troubleshooting dialer wiring. Ringed out wires and found no continuity between some pairs.
11/02/2022	CEA	MCC-MOM	PMT-GLB	Hauled 10,000 gallons from Solids Storage Tank.
11/02/2022	JAA	MCC-MOM	OPR-GLB	Continue troubleshooting internet wires, checking continuity. Install a temporary cable to the alarm dialer. Will continue troubleshooting tomorrow.
11/02/2022	KTV	MCC-MOM	PRG-PLC	This crossover wiring likely isn't necessary but adds additional issues since it appears to be crossed back at the outlet. Since the outlet will need to be rewired and that is going to take some time, set up a temporary cable between PLC6 and the dialer so that we can have functional alarms while changing the wiring at the splice and outlet. Temporarily programmed all zones to be called by any zone 8 alarm. Plan to fix tomorrow.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/02/2022	MAA	MCC-MOM	CMT-INT	Continued troubleshooting alarm dialer wiring. Found Ethernet wiring splices had been done so in "crossover" configuration instead of direct which explained lack on continuity between pairs and zones inactive on dialer. Ran temporary Ethernet wire from dialer to PLC6 and tested with KTV; ok. Opened remaining internet and automation ports in office to check of wiring was daisy chained. All ports have their dedicated Ethernet cable which run to server rack.
11/02/2022	CEA	MCC-MOM	OPR-WTO	Observe MBR 1 CC, check chemical feed dose and chemicals feed equipment operations. MBT 10K sludge haul completed, Flushed the WAS line enabled wasting and increased daily wasting target from 2K to 3K GPD.
11/03/2022	JAA	MCC-MOM	OPR-WTO	Read logs and review SCADA.
11/03/2022	MAA	MCC-MOM	OPR-WTO	Reviewed logs and SCADA. Noticed smoothing at 9.7gpm which is slightly higher than what I normally observe at this time of day (<5.0gpm). Reviewed pending PLC6 panel/dialer wiring with JAA and GXK.
11/03/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Review recent DigAlerts emails. Completed log entries. Assisted MAA and JAA with the alarm dialer re-wiring. Opened the alarm dialer logic on the PLC6 and monitored. Initiated various PLCs alarms and observed the dialer reaction. The dialer wasn't working right. Verified the dialer setups and manually tested all the channels. They were all setup correctly, enabled and tested to function OK. Continue to troubleshoot and found that the ethernet receptacle was wired in the A configuration while the cable was wired in the B configuration. Rewired the receptacle port to the B configuration and tested the alarms again. We now have functioning channel 2-8 alarms on the dialer. Inspected the fire alarm output relay 5 and clarify the instruction to MAA and JAA. They will connect the NO of the fire alarm to one of the alarm dialer relay outputs in PLC6 panel.
11/03/2022	MAA	MCC-MOM	CMT-INT	Alarm Dialer: Since ethernet ports at office are not daisy chained decided to use existing wire and remake splices for proper continuity and eliminate the need to run new wire and or modify automation port. Remade splices and tested alarms with GXK and JAA. Zone 5 does dial out and zone 8 and 6 are swapped on PLC/Dialer.
11/03/2022	JAA	MCC-MOM	OPR-GLB	With MAA and GXK Continue working on PLC 6 panel and wiring.
11/03/2022	JAA	MCC-MOM	OPR-WTO	Continued dialer troubleshooting. Checked ethernet port connection we found the setup is different at the wires set up, GXK show us how to connect the setup we need to match the wires connections. Connect the fire alarm to zone 2 at the alarm dialer. Test the new wires connected; wires connected ok.
11/03/2022	MAA	MCC-MOM	CMT-INT	Continued dialer troubleshooting. Checked ethernet port connection at office and wiring is swapped at connector as well. Remade connection and re-tested; ok. Connected fire panel to dialer zone 2; tested, ok.
11/03/2022	GXK	MCC-MOM	OPR-WTO	Continue to assist JAA and MAA with the alarm dialer wiring. Directed them to connect the fire alarm on Ch.2 and tested the fire alarm wiring. Completed logs. Discussed effluent sampling procedures with GRW. Organized the sampling COC logs.
11/03/2022	MAA	MCC-MOM	SAM-WTO	Collected quarterly EFF samples.
11/03/2022	JAA	MCC-MOM	GMT-AUT	Drive to AutoZone an buy an a/c refill container for the Tacoma. Recharge the a/c for the Tacoma.
11/03/2022	JRW	MCC-MOM	OPR-WTO	Returned to IPC North to take daily effluent & monthly effluent samples. Also reviewed & organized previous COC papers for MCC & IPC sites.
11/03/2022	MAA	MCC-MOM	GMT-AUT	Refilled refrigerant on silver Tacoma, tested; ok.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/03/2022	JAA	MCC-MOM	OPR-WTO	With MAA and DHF Troubleshooting AIT-3213 Instructed by GXK, training on analog circuit devices. GXK demonstrated how to use the calibrator to test the PLC input.
11/03/2022	MAA	MCC-MOM	CMT-INT	Instructed by GXK to troubleshoot discrepancy in ORP reading between SCADA and analyzer. Checked analyzer and manuals for probe and analyzer but found nothing concrete. This lead me to believe comm loss or signal loss with PLC3. Checked terminals on field for loose wiring between PLC and field; none. With GXK, DFH and JAA checked voltage at PLC3 inputs for AIT-3213; no voltage. Further troubleshooting required.
11/03/2022	GXK	MCC-MOM	OPR-WTO	Asked MAA to look into the lost signal from AIT3213 (BIO2 ORP). Assisted him troubleshoot while training MAA, JAA and DFH on analog input devices circuits. We checked the SC200 and found reading of -184 mV. We checked the PLC and found no input signal. The signal was lost on October 26th at 10 am. Next we checked the PLC3 rack 1 slot 2 terminals 4 and 5. We connected a fluke in series with the signal but got 0 mA. We run out of time so we will need to continue troubleshooting tomorrow. I will demonstrate the guys how to use the calibrator to test the PLC input.
11/03/2022	DFH	MCC-MOM	OPR-TRN	With GXK, MAA, and JAA AIT-3213 troubleshooting and diagnosis training.
11/04/2022	JAA	MCC-MOM	OPR-WTO	Review SCADA and trends. Perform visual check walking through the plant.
11/04/2022	JAA	MCC-MOM	OPR-GLB	Continue painting UV light units.
11/04/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Noticed an increase of effluent NOx overnight and a general trend up. Inspected the trends and there are two forces that can drive the nitrate up. First, we increased wasting aggressively this week in order to bring the MLSS down to the 7,000 mg/L range. Second, the temperature decreased dramatically, especially at night. That in turn increases the oxygen intake efficiency and increases the process DO enough to inhibit denitrification. I decreased the PAB normal pressure SP from 6.9 to 6.7 psi. That lower B3520 speed from 90 to 80%. I also increased the P3211 speed from 90 to 95 in order to increase the MLR flow. Review recent DigAlerts emails. Processed recent PO credits.
11/04/2022	CEA	MCC-MOM	OPR-WTO	Plant operations checks and routine rounds. Headworks: SC 2110 rinse fine screen, Coarse screen check, removed solids chute trash. Bluff and Legacy parks pumping stations, and IW2 checks- all normal.
11/04/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/04/2022	JAA	MCC-MOM	OPR-GLB	Prepare materials and start painting roof from the IPC big container.
11/04/2022	CEA	MCC-MOM	CMT-GLB	MBT process check, solids storage tank diffusers plugged up, and poor product mixing. Removed the diffuser's air supply lines cap and flushed them with high-pressure water, cleared diffusers, and resumed aeration. The solids storage tank is running at the normal operating level purged P-73X0 and resumed filtration.
11/04/2022	JAA	MCC-MOM	OPR-WTO	Continue painting roof top of the container.
11/04/2022	GXK	MCC-MOM	PRG-PLC	Researched online about the options of using a PID loop for the very slow response of the chlorine residual to the dose.
11/05/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs. Adjusted P8130 multiplier to 0.09.
11/05/2022	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrating the probes. Collect daily samples Iced and storage.
11/05/2022	BLV	MCC-MOM	GMT-JAN	Cleaned MCC.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/06/2022	JRW	MCC-MOM	GEN-TRN	Took MCC's daily effluent sample, as well as organized previous COC.
11/06/2022	MAA	MCC-MOM	SAM-WTO	Instructed JRW to take daily sample and supervised
11/06/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs.
11/06/2022	JRW	MCC-MOM	SAM-TRN	MAA went over EC & pH testing on effluent.
11/06/2022	MAA	MCC-MOM	SAM-WTO	Trained JRW in pH and EC testing on EFF.
11/07/2022	CEA	MCC-MOM	OPR-WTO	Plant operations checks, routine rounds of chemicals room, Headworks, and MBT process, UV system performance review. Bluff and Legacy park pumping statins operations checks. With ET, briefly reviewed plant processes.
11/07/2022	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. Review plant operations with CEA.
11/07/2022	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. Working with DFH on headworks maintenance. DFH cleaned and rotated the fine screens. He bump-tested the hazardous gas probes.
11/07/2022	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/07/2022	GXK	MCC-MOM	OPR-WTO	Discussed various issues with RRV. We talked about the plans for dealing with future heavy rain events. RRV want to empty BIO1, draining its content slowly to BIO2. He also suggested lifting the online process analyzers to above-ground containers and feeding them with ML using Teel pumps. We also discussed P1250 recent failures and the need to have P1250B as a viable spare.
11/07/2022	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested permeate sample for pH, EC, Cl2, NH3, NO2, NO3, and Alk.
11/07/2022	CEA	MCC-MOM	OPR-WTO	MBR1 CC completed. Check the upper and lower odor control bed, and check MBT solids storage tank aeration diffusers.
11/07/2022	DFH	MCC-MOM	OPR-WTO	Review logs and data.
11/07/2022	DFH	MCC-MOM	SAM-ADM	Collected COC's and sorted into binders.
11/07/2022	GXK	MCC-MOM	OPR-WTO	Prepared the plant for the coming rains. Cleared the first alarm 128 due to heavy rain.
11/07/2022	RRV	MCC-MOM	OPR-WTO	Experienced a brief power failure, too short for the generator to come on, but long enough to trip several pieces of equipment; 1) BL-4610, EF-9410, and P-1250. Reset all indicated units and verified normal operation restored.
11/08/2022	GXK	MCC-MOM	OPR-WTO	Responded to multiple alarm dialer calls reporting active ch.2 alarm conditions. Logged in remotely and found the cause for the alarm to be 128: PDPS excessive 15 minutes level increase due to heavy periods of rain. Reset the alarms, and eventually bypassed it to stop the dialer calls. Checked the level trends and noticed MBR1 was not rotating into service. INvestigated and found BL4610 in OFF. Review logs and put BL4610 back in AUTO. Cleared the MBR1 alarms. Also noted the MBT was offline. Investigated and again found all air blowers were soft-tripped. I put all of them back in AUTO and resumed MBT production. Looked at the weather forecast and the rain is expected to last all night stop in the morning and continue in the afternoon. I increased the A ratio from 1.25 to 1.5 bringing the base flow from 80 to 93 GPM.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/08/2022	GXK	MCC-MOM	OPR-WTO	Following up on last night's rain and alarms. Inspected plant trends. The controls operated as expected increasing the production flow gradually as the rain intensified and the EQT level increased. The P1250 flow increased all the way to 140 GPM at 6:50 when the EQT level reversed course and started to go down again. Both MBRs kicked into service with no issues. A third UV train (#2) also kicked into service with no issues. Had to clear UV3 low UVI alarm to bring ballast controls back to normal. Reduced P8130 multiplier from 0.09 to 0.05 due to high chlorine residual. Completed the alarms logs from last night.
11/08/2022	MAA	MCC-MOM	SAM-WTO	Collected daily eff samples, weekly EFF-A samples and weekly process samples. Trained EJT in sampling, sample log updates and EC/pH readings.
11/08/2022	MAA	MCC-MOM	OPR-GLB	Updated sample bottles count. Trained EJT on sample inventory process.
11/08/2022	CEA	MCC-MOM	OPR-WTO	An alarm was received, plant status check -okay no active alarms found. Check the alarm telltale found previous alarm conditions #124 and #113 are all normal now. Monitoring plant operations heavy rain expected.| Bioreactor 2 low pH alarm 6.6 change Low- Low setpoint alarm from 6.6 to 6.5 will verify pH readings on the next day.
11/09/2022	CEA	MCC-MOM	OPR-WTO	Plant check and daily routine rounds. Increased UV multiplier from 0.9 to 0.11 Clearwell residual is < 1.0 ppm. Verify Levels normal in preparation for IW2 backwashing. Bluff and Legacy Park pumping stations, and IW2 checks.| Corrective maintenance tasks review and assign JAA, fine screen trunnions wheels bearings replacement.
11/09/2022	JAA	MCC-MOM	OPR-WTO	Check and review SCADA and trends. Walking through the plant doing visual inspection.
11/09/2022	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. Emptied trash from SC-2310, ME-2220, and SC-2101.
11/09/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/09/2022	DFH	MCC-MOM	CMT-GLB	With JAA, clean trunnion wheels, remove old bearings and packed with new grease.
11/09/2022	JAA	MCC-MOM	CMT-GLB	SC-2310.000 - With DHF, cleaning trunnion wheels, replacing old bearings.
11/09/2022	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.
11/09/2022	JAA	MCC-MOM	SAM-WTO	With DHF reviewing weekly B and INF samples.
11/09/2022	DFH	MCC-MOM	GMT-AUT	General inspection of Vactor. Sluggish to start most likely due to sitting for about 2 months without use. Idled Vactor to get battery voltage to 14.1v and found an error code 33 Bulkhead. Reviewed error code but can't find a detailed explanation of fault. Will need to do further research.
11/09/2022	DFH	MCC-MOM	SAM-WTO	Reviewed weekly B and INF sampling with JAA. Completed daily EFF, weekly EFF-B, and weekly INF sampling. Collected permeate sample and tested for pH and EC.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/09/2022	GXK	MCC-MOM	OPR-WTO	Continue to troubleshoot the AIT3213 signal while training JAA and DFH. Since there was no current or voltage on the signal input wires coming to the PLC, we checked if there is a voltage at the pull box next to the SC200 controller. There was none for that AIT but there was voltage for other devices. Inspected the SC200 outputs and noticed the ORP was not listed. The AIT3213 is connected at port#1 which had no device connected to it in the configuration setting. I added the device and restored the signal. I'm not sure what caused the device to vanish from the setup.
11/09/2022	CEA	MCC-MOM	CMT-INT	Perform 2 points calibration - okay
11/09/2022	JAA	MCC-MOM	CMT-INT	With GXK and DHF Troubleshooting AIT- 3213
11/09/2022	DFH	MCC-MOM	CMT-INT	With GXK and JAA, troubleshooting AIT-3213.
11/09/2022	CEA	MCC-MOM	OPR-WTO	MBR 1 CC completed. Check bioreactor aeration basin 1, pH probe calibrated.
11/09/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/09/2022	JAA	MCC-MOM	CMT-GLB	With DHF troubleshooting irrigation zone 46, since is been irritating all morning. Opened valve we found rocks were blocking the diaphragm to close. Remove rock, test valve, and solenoid valve.
11/09/2022	DFH	MCC-MOM	CMT-GLB	Irrigation Zone 46 - Troubleshooting irrigation zone 46 with JAA. Zone has been watering since this morning. Closed BV to zone and disassembled valve and found rocks holding the diaphragm open. Removed rocks, inspected diaphragm and tested solenoid valve, okay.
11/09/2022	CEA	MCC-MOM	OPR-GLB	Assisting Sunbelt in picking up temporary generator.
11/10/2022	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log, and lab sampling data. Collected BIO2 and MBT sample for lab analysis.
11/10/2022	DFH	MCC-MOM	SAM-WTO	BIO2 and MBT MLSS analysis.
11/10/2022	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.
11/10/2022	JAA	MCC-MOM	OPR-GLB	Take dirty uniforms to the coin laundry service.
11/10/2022	DFH	MCC-MOM	OPR-WTO	Completed MLSS analysis. Researched portable turbidity calibration and needed standards.
11/10/2022	GXK	MCC-MOM	PRG-PLC	Updated the CPU clocks of all the PLCs and HMIs, adjusting them to daylight saving.
11/10/2022	JRW	MCC-MOM	OPR-WTO	Arrived at MCC to take daily eff sample, and also worked on organizing previous COC's.
11/10/2022	JAA	MCC-MOM	OPR-GLB	Pick up uniforms and drop them off at lab.
11/10/2022	JAA	MCC-MOM	OPR-GLB	Continue painting the big container.
11/11/2022	CEA	MCC-MOM	OPR-WTO	Plant operations checks, review process trends, Eff quality, and UV performance. Bluff and Legacy parks pumping stations, and IW2 checks.
11/11/2022	JAA	MCC-MOM	GMT-AUT	Perform maintenance and check performance of the service truck. Making sure all the mechanical parts of the crane operating properly and add grease to the mechanical parts needed.
11/11/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/11/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Alarms 113 and 117 were active. CEA was exercising P1220 and that created alarm 117. I asked him to leave P1220 in operation so I can inspect the logic and fix it. 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.
11/11/2022	CEA	MCC-MOM	OPR-WTO	Alarm condition 113: EQ insufficient pump up disabled P-1250 and enabled P-1220, with GXK reviewing the alarms logic program.
11/11/2022	GXK	MCC-MOM	PRG-PLC	Inspected the logic of alarm 117: no EQ pump ready for BIO2. There was a logical error in the rung that resulted in the alarm being active when P1250 was set to BIO2 but was in OFF (not ready) status. I corrected the logic to include the evaluation of P1220 status. Review alarm 113: EQT insufficient pump-up logic and the only fault I can find in it is the rigid 10 minutes framework of evaluation of the level change. I'll need to think about a better way to evaluate the proper level change following pump cycles.
11/11/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/11/2022	JAA	MCC-MOM	OPR-GLB	Clean, organize and lubricate tools.
11/11/2022	GXK	MCC-MOM	PRG-PLC	Review and modified the alarm dialer outputs logic in PLC6. I separated the alarms generated from each system's PLC, to generate the corresponding alarm dialer channel alarm. PLC2 alarms generate ch.2 alarm dialer call etc.
11/11/2022	GXK	MCC-MOM	PRG-PLC	Completed the alarm dialer logic modifications on PLC6. Tested the new logic and changed the alarm dialer voice messages. I placed P1250 back into service.
11/12/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs. Reduced P8130 multiplier form 0.1 to 0.08 due to high chlorine residual and up-trend.
11/12/2022	JAA	MCC-MOM	SAM-WTO	Collect daily samples Iced and storage. Perform pH and EC test.
11/13/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs. I increased the PAB pressure setpoint from 6.6 to 6.8 due to low DO in AB1 and AB3.
11/13/2022	JRW	MCC-MOM	SAM-GLB	Arrived to take daily eff sample.
11/14/2022	CEA	MCC-MOM	OPR-WTO	Plant operations and Eff quality checks. Bluff and legacy Park pumping stations and IW2 checks- all normal. Alarm 120: EQ flow anomaly to bioreactor 2 P-1250 running with zero discharge. Briefly rotate P-12X0 and restart P-1250 flow was normal will continue investigating later in the day.
11/14/2022	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. Talked to CEA about P1250A and the need to test the other pump on the skid, let's call it P1250B.
11/14/2022	CEA	MCC-MOM	SAM-WTO	Collect Eff daily samples for lab analysis and set up a cooler for courier pick up.
11/14/2022	CEA	MCC-MOM	CMT-GLB	Inspect P-1250 skid, spare pump check okay, wiring, verify rotation and test- okay.
11/14/2022	KTV	MCC-MOM	CON-DSN	Got information on current alarm dialer wiring from GXK and MAA. Started drawing the final wiring layout so that the fire alarm can be on its own zone and zone 1 can be used.
11/14/2022	CEA	MCC-MOM	CMT-GLB	Continue testing P-1250 pumps skid, spare pump primed and tested manually ran but did not deliver any flow, swapped wiring back to the original pump and primed the lines.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/14/2022	KTV	MCC-MOM	CON-DSN	Finished the alarm dialer wiring drawing and sent email to MAA, GXK and CEA on what to do with the wiring this Wednesday.
11/14/2022	CEA	MCC-MOM	CMT-GLB	Continue troubleshooting P-1250, pump running with zero discharge flow, after several attempts to prime the lines with no success discussed with GXK the next action plan. Abandon troubleshooting P-1250 for today and put P-1220 in service.
11/14/2022	GXK	MCC-MOM	OPR-WTO	Talked to KTV about the MCC alarms and dialer. Helped CEA with the troubleshooting of P1250. After CEA checked P1250B, he reconnected P1250A and tried to put it back into service. But P1250 produced no flow. CEA tried priming it multiple times with P1220 assist and with plant water directly into the pump chamber. no good. Opening the sample port revealed the pump produce no pressure and very little flow coming out of the port. In my opinion, it is an indication of a blockage in the suction side. P1220 is producing about 75 GPM which should be enough overnight. I will need to troubleshoot it further tomorrow. Also in the meantime due to the limit of EQP at 80 GPM, there is a limit on MBR filtration rate of 62 GPM. As a result the BIO2 post-anox 2 tank can't fill up quick enough and was shutting down the MLT pump P3260 and subsequently the MBR when the level dropped to 8 ft. I manually run P1220 at 100% speed and lowered the A ratio from 1.25 to 0.8 to result membrane filtration flow of 50 GPM so the PAT2 can fill back above 13.5 ft. I will keep monitoring remotely and adjust as needed.
11/14/2022	KTV	MCC-MOM	PRG-PLC	Moved PLC2 and PLC3 alarm call logic from the bottom to the top of the subroutine for easier diagnostics. Changed the logic from OR to AND so that now the channel call is normally closed, and the mapped IO in the Discrete Outputs text file is now normally true. During programming tested dialer was dialing out properly. Created a spreadsheet for drafting an overall plan for standardizing the programming and making SCADA templates.
11/14/2022	CEA	MCC-MOM	OPR-WTO	With GXK; make process adjustments and change MBR production setpoints to accommodate P-1220 limited delivery flow of 78 gpm. Monitoring plant process.
11/14/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. BIO2 PAT2 is almost back to normal level. I increased A ratio back to 1.3 and placed P1220 in Auto.
11/15/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs.
11/15/2022	KTV	MCC-MOM	PRG-SDA	Started drafting Dialer_Alarm data type for alarm templates.
11/15/2022	GXK	MCC-MOM	OPR-WTO	Collected Weekly and daily samples for lab analysis. Training JRW and EJT. 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.
11/15/2022	JRW	MCC-MOM	OPR-TRN	With GXK & EJT, GXK did training over weekly samples specifically: Weekly EFF A, and weekly process samples. Showed us the different sampling points from BR2, MBT, and then EQ. Then went over MLSS testing to confirm mixed liquor amount. Also reviewed regular parameters and gave rundown of MCC's process in relation to MLSS/MBR processes.
11/15/2022	GXK	MCC-MOM	OPR-WTO	Continue training EJT and JRW. Filling sampling logs and organized COC folders. Collected BIO2 and MBT MLSS samples for TSS analysis in the lab. Run the test and filled the logs. Used the results to adjust the AIT3253 factor.
11/15/2022	JRW	MCC-MOM	GMT-JAN	Washed glassware in sink, took out all trash, mopped/clean bathroom.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/15/2022	KTV	MCC-MOM	PRG-SDA	Finished Dialer_Alarm data type and tested all functions working as expected. Created a parent data type called Alarm_Array and started bug testing. Overall, everything is working except the alarm name which is used for display and notifications. The problem is related to the name being contained in a parent parameter, but used by the child tags.
11/15/2022	JRW	MCC-MOM	OPR-TRN	With GXK & EJT, went over MLSS sample measurements then GXK reviewed process log information & how to enter information into logs. Along with this also calculating the next factor & how to input it into pump control.
11/15/2022	KTV	MCC-MOM	PRG-SDA	Continued troubleshooting issues with the alarm name indicator. Drafted a single alarm instance template and began making the data type links. Finally solved the name issue; the root cause of the problem appears to be that the parameter name and tag name were the same. I'm not exactly sure why this causes this problem, but once I changed the parameter name it started working as expected.
11/15/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Verified we are not losing ground with our max limit of P1220 80 GPM flow. Reviewed logbook, sampling logs, and process logs. Increased P8130 multiplier from 0.07 to 0.08.
11/16/2022	CEA	MCC-MOM	OPR-WTO	Process check, Headworks, and UV system performance. Observe MBR1 cleaning completed. Troubleshooting B-4610 fail to start, an alarm indicating B-4610 fault input; cleared the alarm and restart blower, monitoring blower performance - normal.
11/16/2022	KTV	MCC-MOM	PRG-SDA	Completed the Alarm_Array template and tested okay, except the buttons aren't working. The tags work when changed from the tag browser, so the problem is related to how the button and template work together.
11/16/2022	GXK	MCC-MOM	OPR-WTO	Continue helping CEA troubleshoot P1250B priming. Attempts to prime and start the pump all failed. Opened the volute chamber for inspection. I can see output pressure building up to 5 psi both nothing is coming up the suction. Invited a pumping truck to test the suction piping.
11/16/2022	MAA	MCC-MOM	CMT-GLB	Drove Vactor down to EQT to assist with P-1250 troubleshooting. Aborted as hose 2" attachment for vactor hose is missing a valve.
11/16/2022	MAA	MCC-MOM	GMT-DIG	Worked on B223120377 Digalert. Had trouble finding markings from Landscaping company. Did some more research on digalert and found that scope of work for this is already in progress. Spoke to KTV; updated drive and will see if I can get some pictures of marking tomorrow morning before work resumes.
11/16/2022	GXK	MCC-MOM	PMT-GLB	Hauled 5,000 gallons from Solids Storage Tank.
11/16/2022	RRV	MCC-MOM	OPR-WTO	Process review. Went over lab data. Troubleshooting internet.
11/16/2022	CEA	MCC-MOM	CMT-GLB	With GXK continuing troubleshooting: disassembly of pump intake piping, flushed intake line, and have Eddy attach the suction hose to piping to verify line is clear. Check motor rotation and confirm proper rotation. Assembly intake piping and continue priming the lines.
11/16/2022	GXK	MCC-MOM	OPR-WTO	Continue troubleshooting and priming P1250 with CEA. Pumper came and had no issue pumping at about 100 GPM from the suction pipe. That cancels blockage in the suction. We isolated the P1250 piping from P1220, and connected a drain hose to the plant drain. We washed out a lot of grit that was trapped in the P1250 pipe to the drain.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/16/2022	KTV	MCC-MOM	PRG-SDA	Figured out that the buttons and parameters need to be configured as bidirectional, which can't be done as a batch so it's going to take some time to correct. Drafted a new alarm dialer screen and found a few more issues with how the SCADA alarms are configured - Display Path filtering needs to be general instead of PLC specific, and the alarm_text isn't working right on the alarm status table.
11/16/2022	GXK	MCC-MOM	OPR-WTO	Continue troubleshooting and priming of P1250B with CEA. CEA eventually managed to prime the pump. We stoped and restart it a couple of times and seems to be running well. We disconnected the drain hose to the plant drain and reconnected the pump discharge to BIO2. Placed P1250 back into service. Cleared all the alarms and removed the alarm bypasses. Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Completed logs. Adjusted A ratio from 1.2 to 1.25. Reduced P8130 multiplier from 0.09 to 0.08.
11/16/2022	CEA	MCC-MOM	CMT-GLB	Isolate P-1250 and rearrange discharge piping attaching temp hose to plant drain while continuing priming the lines, after several unsuccessful attempts manage to get the pump prime and got flow at about 50 gpm. Connect the pump to normal discharge piping to Bioreactor 2 and put it back in service, restart and confirm discharge flow at about 80 gpm.
11/16/2022	KTV	MCC-MOM	PRG-SDA	Fixed the display path issue at the root Dialer_Alarm UDT, and updated the alarm_text parameter in the Alarm_Array UDT. This fixed the alarm status table issues. Created array popups for the new alarm screen and tested okay, although I still need to fix the buttons. Created all PLC2 alarm UDTs.
11/16/2022	KTV	MCC-MOM	OPR-WTO	Headworks alarm - EQ Flow Anomaly to Bioreactor 2. P-1250 running at 100% with no flow. Turned P-1250 off and P-1220 took over at ~70 gpm.
11/16/2022	CEA	MCC-MOM	OPR-WTO	Plant operations checks. Bluff, Legacy Park pumping stations, and IW2 checks are all normal.
11/16/2022	CEA	MCC-MOM	GMT-HSK	Lab and control room cleaning and organizing.
11/16/2022	KTV	MCC-MOM	PRG-SDA	Updated Alarm_Array UDT so that all members have the correct path to the alarm_text. Fixed some issues with the Dialer_Alarm and passing parameters from one template into another so that I can nest the Dialer_Alarm template in the array template.
11/16/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/16/2022	GXK	MCC-MOM	OPR-WTO	Cleaning up in preparation for City manager tour. 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 PAB pressure SP from 6.8 to 6.7 due to high DO and ORP in BIO2.
11/16/2022	JRW	MCC-MOM	GMT-DIG	MAA introduced MCC's Collections layout map, along with how to find DigAlert information & also how to interpret for chalk marking. Went to A223140133 with MAA, reviewed markings made by alerting company & then marked accordingly to S-D4 & LFM-46 (8" RW). Noted that marking made by alerting company were vague & did not show entire dig site.
11/16/2022	MAA	MCC-MOM	GMT-DIG	With JRW; trained on Digalert process. Shared map and Digalert website with him and reviewed job description for each DigAlert we will work on. Completed A223140133 and updated on drive.
11/16/2022	CEA	MCC-MOM	GMT-HSK	General plant housekeeping, and storage of spare parts inside respective containers.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/16/2022	CEA	MCC-MOM	CMT-GLB	Troubleshooting Pump low discharge flow, manually ran pump at full speed but got zero flow discharge, attempted to prime the line but had no success.
11/16/2022	JRW	MCC-MOM	OPR-TRN	With EJT, trained with MAA over how to take weekly INF & also process samples. Went over the different sampling stations & procedures to sample, also reviewed general layout of the plant.
11/16/2022	MAA	MCC-MOM	SAM-WTO	Trained JRW and EJT in weekly INF and Weekly EFF-B samples. Took daily EFF and weekly EFF-A and INF samples. Updated sample log and took pH and EC readings on EFF. Trained JAA, JRW and EJT in CSS test.
11/17/2022	RRV	MCC-MOM	OPR-WTO	0123 Alarm: Several VFD-driven units tripped, including P-1220, P-6120, & B-3510, typical of a commercial power disturbance, and at the same time I got a half dozen router down emails from the Civic Center area, which provides further evidence for a power disturbance. VFD faults cannot be reset remotely, so a site visit is required to correct. Because P-1250 was already out of service, EQ Pumping cannot resume until that site visit is made. I tried running P-1250 just in case, but it did not pump, and BIO2-PAT2 is down to 11.2 feet so I shut down the MFS. Took the opportunity to train crew on typical post-power failure restart problems; MAA, JAA, JRW, and EJT. Went through and restarted plant with them. Note that there were two unusual behaviors. 1: P-1220 cleared its own fault at the MCC bucket. That has never happened before. Normally you have to cycle power to the VFD to clear an MCC bucket fault. 2: B-4610 was able to be reset by pressing the reset button on the MCC bucket. Similarly to P-1220, normally you have to cycle power to the VFD to clear an MCC bucket fault. Behaving typically was P-6210, which neither cleared its own fault nor was able to be reset by the reset pushbutton on the MCC bucket.
11/17/2022	CEA	MCC-MOM	OPR-WTO	An alarm was received and acknowledged it: remotely logged plant status check revealed several equipment tripped and MBR production disabled, check logbook activity and contacted RRV.
11/17/2022	JAA	MCC-MOM	OPR-WTO	With RRV, JRW, EJT and MAA. troubleshooting VFD trips due to power interruptions. Cycled Power to P-6120, reset B-3510. Makes sure they are operating properly.
11/17/2022	MAA	MCC-MOM	OPR-WTO	With RRV, JRW, EJT and JAA. Reviewed SCADA and this morning's VFD trips due to power interruptions. Cycled Power to P-6120, reset B-3510 and verified P-1220 pumped as earlier VFD trip had cleared itself.
11/17/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are typical and process health. Cleared some alarms and checked the MBR and UV systems. 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.
11/17/2022	JRW	MCC-MOM	OPR-WTO	Arrived at IPC North to take daily sample & also transport weekly samples for GXK. Then organized COC's. Continued with communications/reviewing communications with KTV.
11/17/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reset MBR and UVT systems 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.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/17/2022	KTV	MCC-MOM	PRG-SDA	Finished new alarm dialer screen basic layout. Fixed template bidirectional bindings so now all buttons work. There is one weird thing that still happens where the first time the tags are connected to the buttons, they show the last status of the button in the template rather than the tag status. Once the button has been updated once it then shows the correct status even on reloading the client. Since it's just a setup issue, it won't be a problem unless we need to make additional lists or get new PLCs in the future. Created all lists pop up and tested with PLC2; working as intended.
11/18/2022	CEA	MCC-MOM	OPR-WTO	Plant process check MBR in alarm condition "Sequence production faulted " due to PV-4100 failed to open; Manually exercise PV-4100- okay, cleared the MBR alarms and monitored MBR production swapping all normal.
11/18/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are typical and process health. Checked MBR and UV systems alarms and cleared UV3 low UVI alarms. Discussed plant status with CEA and reviewed P1250 and P1220 function trends. I asked CEA to focus on bringing P1250 back into service. At KTV's request, I looked into the VM. For some unknown reason, the VM system can't recognize the VM file on the hard drive. 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.
11/18/2022	CEA	MCC-MOM	OPR-WTO	Plant process and headworks operations checks. Plant routine rounds. Discussed with GXK plant status and prioritize P-1250 low flow troubleshooting task for today.
11/18/2022	CEA	MCC-MOM	CMT-GLB	Inspect pump discharge and intake piping, tighten bolts and secure true unions fittings. Filled up pump piping in an attempt to prime with no success.
11/18/2022	CEA	MCC-MOM	CMT-GLB	Continue working on P-1250 B attempting to prime the lines trying several different methods unsuccessfully, abandoned P-1250 B and moved to P-1250 A (original pump in service)
11/18/2022	GXK	MCC-MOM	OPR-WTO	Worked with CEA on troubleshooting and priming P1250B. We tried various ways to prime and troubleshoot it.
11/18/2022	KTV	MCC-MOM	PRG-SDA	Updated alarm dialer screen with PLC3 alarms and template scripts for the remaining indicators. The screen can now take over for the original, so sent email to CEA, GXK and RRV explaining how to use the new screen for bug testing before removing the original screen.
11/18/2022	CEA	MCC-MOM	CMT-GLB	Inspect pump discharge and intake piping, tighten bolts and secure true unions fittings. After several attempts and different piping configurations finally got the pump to prime flow > 100 gpm. Disabled P-1220 and put P-1250 B in service. Monitoring several pumps cycle all normal.
11/18/2022	GXK	MCC-MOM	OPR-WTO	Continue working with CEA on troubleshooting and priming P1250B. We were unsuccessful. We rolled back to troubleshooting and prime P1250A instead.
11/18/2022	KTV	MCC-MOM	PRG-SDA	Started a list of all SCADA alarms and locations so that I can track the original configuration and have a map of everything if we want to selectively enable/disable alarms. Finished list of all RTU and PLC2.
11/18/2022	KTV	MCC-MOM	PRG-SDA	Finished SCADA alarms list through PLC3 and started PLC4 list.
11/19/2022	CEA	MCC-MOM	OPR-WTO	Plant process check MBR in alarm condition "Sequence production faulted " due to BFV-4651 failed; Manually exercise BFV-4651- okay, cleared the MBR alarms and monitored MBR production swapping all normal. Bluff and Legacy Park, and IW2 checks. Updating the logbook.
11/19/2022	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrating the probes. Collect daily samples Iced and storage.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/20/2022	CEA	MCC-MOM	OPR-WTO	Plant status check- normal. Bluff and Legacy parks pumping stations and IW2 operations checks.
11/20/2022	MAA	MCC-MOM	SAM-WTO	Collected daily EFF sample. Tested pH and EC.
11/21/2022	CEA	MCC-MOM	OPR-WTO	Plant operations checks. Observed Bluff park irrigation cycle completed.
11/21/2022	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.
11/21/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/21/2022	CEA	MCC-MOM	SAM-WTO	Collect daily Eff samples for lab analysis.
11/21/2022	CEA	MCC-MOM	OPR-WTO	Observ MBR1 CC (hypochlorite) completed, inspect membranes P-41X0 oil level- normal. Check upper and lower odor control beds.
11/21/2022	GXK	MCC-MOM	PRG-PLC	Tried to troubleshoot the VM on the Surface. It seems like the VM setup file got corrupted during the power surges and is no longer viable. A new VM will need to be setup.
11/21/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/21/2022	KTV	MCC-MOM	PRG-SDA	Finished alarm list for PLC4. Discussed current status of alarms programming with RRV - plan to restrict the permanent bypass features to supervisors, and replace with timed bypass for all operators. Mapped out basic concept that will make individual alarm bypassing possible without using 1000 timers.
11/21/2022	CEA	MCC-MOM	OPR-WTO	Alarm 113: EQT Insufficient Pump UP, Check P-1250 performance - normal, discussed with KTV possible cause of the alarm was PDPS cycle. Discussed with KTV the reason why P-1210 was disabled and LOTO. Reset and restart P-3111.
11/22/2022	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.
11/22/2022	GXK	MCC-MOM	SAM-GLB	Collected Weekly and Daily samples for lab analysis.
11/23/2022	CEA	MCC-MOM	OPR-WTO	Plant process check Bluff park irrigation cycle completed. Bluff and Legacy Park pumping stations, and IW2 operations checks.
11/23/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/23/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reduced PAB pressure SP from 6.7 to 6.6 psi due to higher than normal BIO2 DOs. 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. Talked to Brightview tech who wanted to reduce the irrigation from 4 to 2 times a week. I explained to him that we use recycled water and there is no need for that.
11/23/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/23/2022	GXK	MCC-MOM	SAM-GLB	Collected weekly EFF composite samples for lab analysis. Cleaned the composite sampler from spider webs. Inspected the sampler program and setting. all was good.
11/23/2022	CEA	MCC-MOM	SAM-WTO	Collect Eff daily and weekly B compliance samples for lab analysis. Set up a cooler for courier pick up.
11/23/2022	GXK	MCC-MOM	PMT-GLB	Completed preventive maintenance.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/23/2022	CEA	MCC-MOM	OPR-WTO	End of the day plant status check, Headworks, MBT, upper and lower odor control beds checks, chemicals room, and UV system performance check- all normal.
11/24/2022	RRV	MCC-MOM	OPR-WTO	0417 Alarm: 113 - EQ Tank Insufficient Pump Up. 004 - Inlfulent Pump Idle Too Long telltale was also active, but I am discounting it as an uncleared previous telltale that was not cleared because there is no sign of the trends of such a condition in recent history. Trend review indicates that 113 is the typical nuisance alarm we see in early morning hours when there is a short PDPS cycle, as opposed to a real alarm condition. Reset both telltales.
11/24/2022	JRW	MCC-MOM	SAM-GLB	Took MCC's daily sample, then organized COC's.
11/24/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs. Due to lower flows over the holiday, I reduced the A ratio from 1.25 to 1, bringing the normal production rate from 62 to 54 GPM.
11/25/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs.
11/25/2022	JRW	MCC-MOM	SAM-GLB	Took MCC's daily sample.
11/26/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs. Increased A ratio from 1.2 to 1.25 due to higher average flows following the quiet holiday.
11/26/2022	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrating the probes. Collect daily samples Iced and storage.
11/26/2022	CEA	MCC-MOM	OPR-WTO	Plant status checks. Bluff and Legacy parks pumping stations, and IW2 checks.
11/26/2022	KTV	MCC-MOM	PRG-PLC	Started mapping individual alarm bypass overall SCADA integration with links between maps for clarity.
11/27/2022	CEA	MCC-MOM	SAM-WTO	Plant process check - OK, make routine rounds. Collect daily Effluent compliance samples for lab analysis, set up cooler for PCL pick up.
11/28/2022	CEA	MCC-MOM	OPR-WTO	Plant process check. Bluff and legacy parks pumping stations, and IW2 cheks- all normal. Daily routine rounds.
11/28/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/28/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reduced P8130 multiple from 0.12 to 0.09 due to chlorine residual trends. 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.
11/28/2022	CEA	MCC-MOM	SAM-WTO	Collect plant daily Effluent compliance samples for lab analysis, and set up a cooler for PCL pick up.
11/28/2022	CEA	MCC-MOM	GMT-HSK	Housekeeping, organizing lab equipment.
11/28/2022	CEA	MCC-MOM	OPR-WTO	Monitoring MBR1 CC.
11/29/2022	DFH	MCC-MOM	CMT-INT	Alarm dialer review and wiring schematic with KTV.
11/29/2022	KTV	MCC-MOM	OPR-WTO	Found P-3111 general fault hard trip. Cycled power at the breaker and P-3111 ran normally with no issues. Reviewed new alarm dialer wiring with GXK and DFH. Once DFH finished the PLC wiring, changed the PLC addresses to reflect the new zone assignment (same structure as before except fire alarm will be on zone 8 and zone 1 is now available for collections). Tested new address assignment and it worked as expected.
11/29/2022	DFH	MCC-MOM	CMT-INT	Started working on rewiring alarm dialer at the PLC6 LCP. Ran new ethernet cable from PLC6 LCP to patch panel cabinet and connected to ethernet port for fire alarm system.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/29/2022	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. Talked to KTV about the alarms screen and the logic behind it.
11/29/2022	DFH	MCC-MOM	SAM-WTO	Collected daily EFF, weekly A, and weekly process samples. Tested permeate sample for pH and EC.
11/29/2022	GXK	MCC-MOM	OPR-WTO	Helped DHF with alarm dialer wiring and testing.
11/29/2022	DFH	MCC-MOM	SAM-WTO	Collected and ran MLSS analysis on BIO2 and MBT.
11/29/2022	DFH	MCC-MOM	CMT-INT	Verified fire alarm ethernet keystone inside office and switched configuration from A to B. Ran ethernet cable to alarm dialer and completed all connections as requested by KTV. Tested alarm dialer and fire alarm system with GXK, normal.
11/29/2022	KTV	MCC-MOM	PRG-PLC	During discussion with GXK earlier, realized there are a few additional issues I had overlooked in my individual alarm bypass program: counter is better than timer, the way I am recording the alarm sequences will create the possibility that a shorter bypass won't end until an earlier longer bypass is over - both issues should be easily resolvable, so continued updating the program map to account for them.
11/29/2022	GXK	MCC-MOM	OPR-WTO	Responded to high turbidity alarm. I ended up cleaning the AIT4002 cuvette.
11/30/2022	CEA	MCC-MOM	OPR-WTO	Plant operations check made plant routine rounds. Bluff and Legacy parks pumping stations, and IW2 checks. Discussed new alarm system programming with KTV.
11/30/2022	JAA	MCC-MOM	OPR-GLB	Prepare materials and start painting the large container.
11/30/2022	MAA	MCC-MOM	OPR-WTO	Reviewed logs, SCADA and trends. Plant walkthrough. Reviewed fire alarm testing with KTV.
11/30/2022	KTV	MCC-MOM	OPR-WTO	Added CEA, GXK and RRV to the alarm dialer email list since it is now confirmed working. Disabled the original alarm pipeline to prevent nuisance alarms. SCADA and trend review okay. Reviewed alarm dialer progress with MAA.
11/30/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
11/30/2022	MAA	MCC-MOM	OPR-WTO	Training with KTV on updated alarms page and programming.
11/30/2022	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.
11/30/2022	CEA	MCC-MOM	CMT-GLB	MBT solids storage tank diffusers were plugged up, disabled production and removed diffuser cap, and flushed lines with high-pressure plant water. Enabled aeration and resumed production.
11/30/2022	MAA	MCC-MOM	OPR-GLB	Testing fire alarm by opening valve on fire line. No alarm; will need to further troubleshoot.
11/30/2022	JAA	MCC-MOM	OPR-GLB	Continue painting.
11/30/2022	MAA	MCC-MOM	CMT-INT	Fire Alarm Water Sensor WFD30N: Reviewed fire alarm panel manuals but found nothing wrong with existing installation and wiring. Downloaded manual for WFD30N sensor; found sensor has an internal timer delay setting which is set to 90 sec by default. Opened sensor housing and found it set to ~30 sec. Opened fire line valve for ~30 sec and alarm was successfully dialed out verified by KTV.

INTEGRATED PERFORMANCE CONSULTANTS

202211_mcc_onm Report

Period: 11/01/2022 - 11/30/2022

Date	Name	Job	Task	Notes
11/30/2022	DFH	MCC-MOM	OPR-WTO	Assist JAA in locating epoxy and hardener primer for IW painting. Part A and b should be mixed at an equal 1:1 ratio.
11/30/2022	JRW	MCC-MOM	OPR-GLB	With RRV, was taught how to drive Bobcat & how to operate crane at IPC North. Then worked on cleaning membrane cages.
11/30/2022	JAA	MCC-MOM	OPR-GLB	Finishing painting the large container and cleaning work area.
11/30/2022	CEA	MCC-MOM	CMT-GLB	MBT low flow alarm B-7120 fail to start: Further investigation revealed VFD "LUD" fault, inspect blower no mechanical issues found, reset VFD and restart- okay. Monitoring air supply flow at 70 scfm.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/01/2022	CEA	MCC-MOM	OPR-WTO	Plant operations check. Clearwell Cl2 residual is decreasing, increased UV flow pacing multiplier from 0.08 to 0.10. Review alarms summary and alarms log. Bluff and Legacy Parks pumping stations, and IW2 checks.
12/01/2022	MAA	MCC-MOM	OPR-WTO	SCADA and logs checks.
12/01/2022	JAA	MCC-MOM	OPR-WTO	Check SCADA and review trends and read logs.
12/01/2022	MAA	MCC-MOM	GEN-ADM	Worked on schedule maintenance schedule for 2019 F250's.
12/01/2022	MAA	MCC-MOM	OPR-WTO	Plant walk-through. Noticed "Sensor Warning" on Hach CL17, asked JAA to look into it. Continued work on F250's maintenance schedule.
12/01/2022	JAA	MCC-MOM	OPR-WTO	Walk through the plant doing visual checks. We noticed sensor warning on hach 17. Check into the manual to collect more information about the warning
12/01/2022	MAA	MCC-MOM	CMT-INT	Headworks, Solids Blower Room, and Process Air Blower rooms fire alarm testing; ok.
12/01/2022	JAA	MCC-MOM	CMT-INT	Assist MAA to test fire alarms from process air blower room, headworks, and solids blower room.
12/01/2022	MAA	MCC-MOM	CMT-ELT	Looked up manual for analyzer; found sensor warning alarm, "Power". Traced breaker for analyzer; ok. Spoke to GXK, alarm is more of a nuisance alarm. Cleared; ok.
12/01/2022	JAA	MCC-MOM	CMT-ELT	After looking at the manual, find the problem was indicated was "power" check break; ok. Talk to GXK about the warning alarm. GXK mention is just a nuisance alarm. MAA cleared.
12/01/2022	MAA	MCC-MOM	GEN-ADM	Continued work on F250 maint schedule. Reviewed PLC3 drawings.
12/01/2022	JAA	MCC-MOM	OPR-GLB	Reviewing PLC 3 diagram drawings.
12/01/2022	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. Asked CEA to set a submersible pump in the BIO1 Pre-anox tank and start transfer to the BIO2 Pre-anox tank at a slow flow rate of about 5 GPM.
12/01/2022	MAA	MCC-MOM	OPR-GLB	Continued PLC3 electrical drawings review for best IO locations for FIT-3104, 4204, BFV 3104 and BFV 3204. Assisted CEA in lowering and securing sump pump for transfer between BIO cells.
12/01/2022	JAA	MCC-MOM	OPR-GLB	Continue with MAA reviewing drawing from PLC 3.
12/01/2022	CEA	MCC-MOM	OPR-WTO	With GXK; reviewed aeration process data trends, and discussed setting up a sump pump for transferring product from Bio1 pre-anox to Bio2 pre-anox zone in preparation for the heavy rains forecast.
12/01/2022	JRW	MCC-MOM	OPR-GLB	Worked on cleaning membrane frame.
12/01/2022	CEA	MCC-MOM	OPR-GLB	Setting up a sump pump for transferring product from Bio1 pre-anox to Bio2 pre-anox zone in preparation for the heavy rains forecast. Adjusted transferring pump flow rate to 10 gpm. Leave the pump running overnight per gxk instructions.
12/01/2022	KTV	MCC-MOM	OPR-WTO	Continued work on collections system procedures in preparation for maintenance in January.
12/01/2022	JAA	MCC-MOM	CMT-ELT	With MAA verify JSP BFV-3204 wiring from the valves to the PLC jbox and from the jbox to the PLC 3 panel. Repeat the same thing to BFV-3104. Start wiring the flow meters at PLC 3.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/01/2022	MAA	MCC-MOM	CMT-ELT	BFV-3204. Verified JSP wiring from valve to Jbox to PLC3 panel. Verified JSP wiring from valve to Jbox to PLC3 panel. FIT-3204; Verified JSP wiring from flow meter to Jbox to PLC3 panel. Wired flow meter at PLC 3 R2-S0 Chanel 2 AI FIT-3104; Verified JSP wiring from flow meter to Jbox to PLC3 panel. Wired flow meter at PLC 3 R2-S0 Chanel 3 AI.
12/01/2022	JRW	MCC-MOM	OPR-GLB	Continuation of cleaning membrane frame then completed time logs for the day.
12/01/2022	CEA	MCC-MOM	OPR-WTO	Observed MBR2 CC completed. Check Headworks and chemicals room. Exercise eyewash stations.
12/01/2022	GXK	MCC-MOM	OPR-WTO	Helped CEA setup the transfer pump from BIO1 to BIO2. We set the flow at about 8 GPM. Helped DFH with the restroom lock. Monitor the effect of the transfer on UVT, TSS, ORP and DO. Lowered P3211 speed from 95 to 92%. Reduced B ratio from 1.28 to 1.13 to adjust for the additional flow resulting from the BIOtransfer. I increased the A ratio from 1.25 to 2 in preparation for rain later tonight.
12/01/2022	CEA	MCC-MOM	GEN-TRV	Pick up piggyback float switch at the HD.
12/01/2022	MAA	MCC-MOM	OPR-WTO	Checked raw value for FIT-3104 and 3204 at PLC3 with KTV but no value exist. Will need to further investigate tomorrow.
12/01/2022	DFH	MCC-MOM	CMT-GLB	Restroom lockset no longer working, deadbolt lever spins freely. Removed and inspected locking mechanism. Found the square key behind deadbolt was loose. Pushed square key back into lever and tested, okay.
12/02/2022	JAA	MCC-MOM	OPR-WTO	Reviewing logs check SCADA and trends.
12/02/2022	MAA	MCC-MOM	GEN-ADM	Continued work on maintenance schedules for 2019 F250's, began F350.
12/02/2022	MAA	MCC-MOM	OPR-WTO	SCADA check and log reviews.
12/02/2022	KTV	MCC-MOM	OPR-WTO	Supervised MAA and JAA with Bioreactor air flow meter wiring.
12/02/2022	MAA	MCC-MOM	CMT-ELT	FIT-3104, 3204. Reviewed flow meter wiring from manual. Currently wired for external power source (PLC). Will change to instrument control power.
12/02/2022	JAA	MCC-MOM	CMT-GLB	With MAA reviewing flow meter wiring diagram from the manual. We wire FIT-3204 at the PLC and test mA signal. Do same procedures with FIT-3104 test, ok.
12/02/2022	MAA	MCC-MOM	CMT-ELT	FIT-3204; Wired at PLC; tested for mA signal, none. Tested on channel 4, still no signal. Re-checked wiring at flow meter and jbox; ok. Asked KTV for assistance, found R2S0 had no power due to tripped breaker. Unsure how or why R2S0 tripped but it must have during wiring of LIT-3104. Reset breaker and verified power back on R2S0. Wired and tested; ok. FIT 3104. Upon inspection of flow meter wiring found that model installed does not have 24VDC for instrument power, so will need to wire for external power source configuration. Reviewed wiring with KTV and JAA and began wiring FTI-3104 at PLC3; tested for 0-20mA signal, ok, completed wiring.
12/02/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Reduced PAB pressure SP from 6.6 to 6.5 psi. Reduced A ratio from 2 to 1.25. Asked CEA to schedule MBT SST pumping for today.
12/02/2022	CEA	MCC-MOM	OPR-WTO	Plant process check. Inspect Bioreactors, and verify transfer pump running and discharge flow. Bluff and Legacy park pumping stations, and IW2 operations check.| Schedule 12500 wasted activated sludge haul MBT process control.
12/02/2022	KTV	MCC-MOM	PRG-PLC	Finished air flow meter wiring and began overall introduction to PLC data types, UDTs and AOIs with MAA.
12/02/2022	CEA	MCC-MOM	PMT-GLB	Hauled 5,000 gallons from Solids Storage Tank.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/02/2022	GXK	MCC-MOM	OPR-WTO	Continue to work on the BIOs aeration. Adjusted the air balance to compensate for the BIO1 level reduction. Re-started P8420 injection of MicroC to BIO2 in order to reduce the elevated nitrate concentration. Reduced P8130 multiplier due to high chlorine residual.
12/02/2022	JAA	MCC-MOM	SAM-WTO	Perform EFF pH, NO3, NO2, alkalinity, NH3 and CL2 test.
12/02/2022	MAA	MCC-MOM	CMT-ELT	LIT-3104; labeled wiring and swapped from channel 3 to channel 2 at PLC3 R2S0. LIT-3204; labeled wiring and swapped from channel 2 to channel 3 at PLC3 R2S0.
12/02/2022	JRW	MCC-MOM	SAM-GLB	Obtained MCC's daily sample.
12/02/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/02/2022	KTV	MCC-MOM	PRG-PLC	With MAA, created flow meter tags, scaled and verified scaled value matches local display.
12/02/2022	MAA	MCC-MOM	PRG-PLC	With KTV; training on IN_Scale_INT sub routines. Added tags for Scaling subroutines for LIT-3104 and LIT-3204 for BIO1 and BIO2 on PLC3, updated logic and verified scaling.
12/02/2022	CEA	MCC-MOM	SAM-WTO	Eff quality analysis, check lab supplies inventory.
12/02/2022	JAA	MCC-MOM	OPR-WTO	Reviewing SCADA and finishing a training safety skills training.
12/02/2022	CEA	MCC-MOM	PMT-GLB	Hauled 7,500 gallons from Solids Storage Tank.
12/02/2022	MAA	MCC-MOM	PRG-SDA	With KTV and GXK; reviewed tags on Ignition 8. Added FIT-3104, FIT-3204 tags and updated MCC SCADA to reflect FIT-3104, FIT-3204 on BIO1 and BIO2 screens respectively.
12/02/2022	GXK	MCC-MOM	PRG-PLC	Participated in KTV training with MAA on the integration of the wired BIOs air flow meters. MAA programmed the scaling on the PLC, followed by programing the SCADA displays.
12/02/2022	KTV	MCC-MOM	PRG-SDA	With MAA, added flow meter indicators to SCADA and added the tags to the historical database for trending.
12/02/2022	MAA	MCC-MOM	PRG-TRN	Training with KTV; created sheet for Signed and Unsigned Intergers for future programming.
12/02/2022	GXK	MCC-MOM	OPR-WTO	Continue to adjust the air balance. Suspended the BIO1 transfer to BIO2 for the weekend. Continue to look into the BIOs air flow meters. Updated the documentation with some of my installation and setup notes. Inspected the flow meters program setup and verified the 4-20mA signal was set to 0-1000 SCFM. Made some additional corrections to the Ignition program.
12/03/2022	KTV	MCC-MOM	OPR-WTO	Remote SCADA and trend review okay.
12/03/2022	BLV	MCC-MOM	GMT-JAN	Cleaned MCC.
12/03/2022	JAA	MCC-MOM	OPR-WTO	Perform pH and EC test after calibrating the probes.
12/04/2022	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
12/04/2022	KTV	MCC-MOM	OPR-WTO	Remote SCADA and trend review okay.
12/05/2022	CEA	MCC-MOM	OPR-WTO	Plant operations check, and review UV system performance. Bluff and Legacy Park pumping stations, and IW2 checks- normal.
12/05/2022	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.
12/05/2022	KTV	MCC-MOM	OPR-WTO	Reviewed scope of work for the day with MAA and DFH. Plan to continue Bioreactor wiring later. For today, start preparing for collections system maintenance and introduce JRW and EJT to the Vactor.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/05/2022	MAA	MCC-MOM	OPR-GLB	Reviewed documentation for BFV's 3104 and 3204.
12/05/2022	MAA	MCC-MOM	GEN-ADM	Meeting with KTV.
12/05/2022	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/05/2022	JRW	MCC-MOM	OPR-TRN	With EJT, reviewed Vactor truck functions with DFH & MAA. They were able to review overall equipment layout & preparation for filling/unloading.
12/05/2022	MAA	MCC-MOM	OPR-GLB	General check of Vactor. With DFH, trained EJT and JRW on basic Vactor components and procedures for filling up Vactor water tank.
12/05/2022	DFH	MCC-MOM	GMT-AUT	Vactor training with MAA, JRW, and EJP.
12/05/2022	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 P8130 multiple from 0.12 to 0.1 due to chlorine residual trend. Restarted the MBT. Rotated UV1 into service and UV3 out of service. UV lamps are close to the end of life and need to be replaced soon.
12/05/2022	MAA	MCC-MOM	OPR-GLB	Searched for and found wiring for BFV's 3104 and 3204. Reviewed wiring for controls and feedback and prepped contact list for landing wiring at PLC and Valve.
12/05/2022	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested permeate sample for pH and EC.
12/05/2022	DFH	MCC-MOM	CMT-ELT	With MAA, assist in locating and wiring BFV-3104.
12/05/2022	MAA	MCC-MOM	CMT-ELT	Marked valve actuator for current positioning and checked air flow pre-wiring. Got OK from KTV to wire control, feedback and power. When opening breaker for S2-S3 noticed power indicator blinked instead of going completely off. Inquired with KTV, checked for PLC fault, none. Found power being applied to outputs via blowoff valve. Traced power to blowoff valve and opened disconnect switch to valve. Due to required programming needed for valve once powered we won't have time to complete task so will resume later in week.
12/05/2022	CEA	MCC-MOM	GMT-HSK	MBT process check, inspection, and housekeeping of electrical room 2000.
12/05/2022	JRW	MCC-MOM	OPR-GLB	With EJT. Arrived to drop off samples at MCC, then met with MAA & DFH to review Vactor unloading & review functions. Removed plugs & strainer for storage, after emptying Vactor. Finished time logs.
12/05/2022	KTV	MCC-MOM	OPR-WTO	Finished final week inspection procedures for the collections system. Sent procedures to Art along with the planned dates: Jan 17th through Feb 2nd.
12/05/2022	MAA	MCC-MOM	OPR-GLB	Continued training JRW and EJT in Vactor operation; draining water tank.
12/05/2022	DFH	MCC-MOM	GMT-AUT	Training with MAA, JRW, and EJP on Vactor cleanup.
12/05/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Resumed BIO1 transfer to BIO2. Talked to KTV and RRV about P1250B. Discussed the need to flush the RW distribution pipe with RRV.
12/05/2022	GXK	MCC-MOM	OPR-WTO	Review lab reports. Composed an email to the lab contesting the pH results for EFF samples collected on 11/08/22.
12/06/2022	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. Started to respond to PCL follow-up email about the pH measurements.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/06/2022	GXK	MCC-MOM	OPR-WTO	Continue to gather information and respond to PCL's email regarding pH. Received delivery of lockers.
12/06/2022	CEA	MCC-MOM	GMT-HSK	Inspect confined space entry equipment, calibrate Gasalert gas detector, and test - okay. General housekeeping, removing items from the office to make up room for the new lockers.
12/06/2022	JRW	MCC-MOM	GEN-TRN	With KTV & EJT, began CSE training. KTV reviewed roles & their objectives, and also set up for confined space entry by airing out manhole using a fan powered by generator. Then setup tri-pod pulley system.
12/06/2022	CEA	MCC-MOM	SAM-WTO	Collect weekly A and dailies samples for lab analysis, prepare cooler for courier pick up.
12/06/2022	CEA	MCC-MOM	OPR-WTO	Plant process review, check MBT and Headworks operations. Observed membrane train 2 CC, and verify chemical feed dose.
12/06/2022	JRW	MCC-MOM	OPR-TRN	With KTV & EJT, worked on CSE training. Then finished time logs.
12/06/2022	GXK	MCC-MOM	OPR-WTO	Continue to transfer from BIO1 to BIO2. Setup the new lockers. Adjusted BIO aeration and MicroC dose. Searched for solutions to replace the DR6000 lab spectrophotometer.
12/07/2022	CEA	MCC-MOM	OPR-WTO	Plant operations checks, and review process data trends. Bluff and Legacy parks pumping stations, and IW2 checks.
12/07/2022	MAA	MCC-MOM	OPR-TRN	SCADA and log checks. Discussed and reviewed A ratio, B ratio and EQ trends with KTV. Reviewed Compliance data with KTV.
12/07/2022	KTV	MCC-MOM	OPR-WTO	With MAA, reviewed EQ smoothing and trend analysis to determine if the IW2 maintenance has been done this week. Reviewed scope of work for the day.
12/07/2022	MAA	MCC-MOM	PRG-TRN	Training with KTV, reviewed numbering formats in relation to PLC programming.
12/07/2022	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. Lab organization, cleanup, and reagent inventory check.
12/07/2022	KTV	MCC-MOM	PRG-PLC	With MAA, reviewed data types in preparation for output raw value control and eventual scaling. Reviewed overall scope of work for Bioreactor airflow valves and alarms with GXK.
12/07/2022	MAA	MCC-MOM	SAM-WTO	Collected Weekly B's and Daily Samples. Measured pH and EC. Collected and filed COC's.
12/07/2022	MAA	MCC-MOM	CMT-GLB	Cleaned toilet flushing mechanism to prevent water hammering.
12/07/2022	GXK	MCC-MOM	OPR-WTO	Inspected the toiled flushing mechanism. Asked MAA to disassemble the flushing valve and soak it in a diluted acid solution for cleaning. Searched online for replacement parts.
12/07/2022	MAA	MCC-MOM	OPR-TRN	Trained JAA in CSS test.
12/07/2022	MAA	MCC-MOM	PRG-TRN	Read through 1794 Flex IO manual.
12/07/2022	GXK	MCC-MOM	OPR-WTO	Continue to monitor the BIO1 transfer and adjust aeration. Continue to look into the replacement of the toilet flushing mechanism. Searched for thermostat switch for control of the backup generator heater.
12/08/2022	CEA	MCC-MOM	OPR-WTO	Plant status checks- normal. Bluff and Legacy park pumping stations and IW2 checks.
12/08/2022	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log and lab sampling data.
12/08/2022	DFH	MCC-MOM	GMT-HSK	General housekeeping at IW2.
12/08/2022	KTV	MCC-MOM	OPR-WTO	Supervised DFH IW-2 preventative maintenance.
12/08/2022	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/08/2022	MAA	MCC-MOM	GEN-ADM	General discussion with KTV, EJT, and JRW on WWT process and examinations. Reviewed FLEX IO manual and figured pout raw output values for channels 3 and 0.
12/08/2022	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. Placed an order for a replacement toilet flushing mechanism. Review the specs and wiring information of the AB analog output module.
12/08/2022	DFH	MCC-MOM	CMT-INT	Researching flexbus IO card to program BFV-3104.
12/08/2022	KTV	MCC-MOM	OPR-WTO	With MAA, set and tested raw outputs for Bioreactor air flow valve positions: 40% for BIO1 and 90% for BIO2. MAA tested mA signals match expectations. Reviewed wiring diagrams and terminal connections and MAA started on valve wiring.
12/08/2022	JRW	MCC-MOM	GEN-TRN	Worked on CSE training. With EJT, met with KTV at headworks to review CSE & perform confined space entry. Was able to first start & experience attendee role, then switched as entrant for permit B. After this cleaned up & brought CSE equipment to small storage container.
12/08/2022	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested sample for pH and EC. Collected permeate sample and tested for NH3, NO2, NO3, Alk, and Cl2. Collected BIO2 and MBT sample for MLSS analysis.
12/08/2022	MAA	MCC-MOM	PRG-TRN	With KTV; logged onto PLC3. Input raw output values for BFV-3104, 3204 for wiring.
12/08/2022	MAA	MCC-MOM	CMT-ELT	BFV-3204: Set up LOTO; wired control outputs and feed back inputs on PLC 3. Set up LOTO; wired control outputs and feed back inputs on PLC 3.
12/08/2022	CEA	MCC-MOM	OPR-WTO	Review process data trends, and observed MBR2 CC. Lab equipment organizing. Calibrating pH meter.
12/08/2022	DFH	MCC-MOM	SAM-WTO	Completed MLSS analysis on BIO2 and MBT samples.
12/08/2022	JRW	MCC-MOM	OPR-GLB	Assisted MAA with setting up canopy for valve re-wiring.
12/08/2022	MAA	MCC-MOM	CMT-ELT	Opened valve terminals for wiring up power. Ran into difficulties as power wire gauge is too thick for terminals. GXK assisted with guidance on alternate method of wiring. Ran out of time; will continue tomorrow.
12/08/2022	GXK	MCC-MOM	OPR-WTO	Continue to transfer from BIO1 to BIO2. Monitored level, DOs, and NO3. Adjusted aeration valves as needed. Increased MicroC dosing as needed. Assisted MAA and DFH with the wiring of the aeration flow control MOVs.
12/08/2022	DFH	MCC-MOM	CMT-INT	Assist MAA with wiring BFV-3104 at the valve.
12/08/2022	MAA	MCC-MOM	GMT-HSK	Cleaned up PLC 3 area.
12/08/2022	MAA	MCC-MOM	CMT-INT	BFV-3204; set raw values back to 0 on PLC outputs as valve wiring was not complete. Set raw values back to 0 on PLC outputs as valve wiring was not complete.
12/08/2022	GXK	MCC-MOM	OPR-WTO	Continue with purchases. Continue to look into thermostat for the generator heater. Looked into lab supplies, pH meters, and chlorine analyzers.
12/09/2022	CEA	MCC-MOM	OPR-WTO	Plant status checks- normal. Bluff and Legacy park pumping stations and IW2 checks.
12/09/2022	DFH	MCC-MOM	SAM-ADM	Collect and organize COC's.
12/09/2022	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log, and lab sampling data. Vactor review and prep with MAA.
12/09/2022	MAA	MCC-MOM	OPR-WTO	SCADA checks, reviewed pending wiring work and WAS set point with KTV and DFH.
12/09/2022	MAA	MCC-MOM	OPR-GLB	Reviewed Vactor jetting procedures with DFH. Did practice runs on plant drain.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/09/2022	DFH	MCC-MOM	CMT-INT	BFV-3204 - set up LOTO and wired Control and Feedback JSP on valve.
12/09/2022	MAA	MCC-MOM	CMT-ELT	BFV-3204; assisted DFH in wiring power, control and feedback. Wired power, control and feedback at valve. Shared wiring sheet with DFH.
12/09/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Adjusted Chlorine dose multiplier, and increased MicorC dose pump speed from 5 to 10% 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.
12/09/2022	MAA	MCC-MOM	SAM-WTO	Collected daily EFF sample. Ran pH and EC tests. Updated sample log sheet.
12/09/2022	DFH	MCC-MOM	OPR-WTO	Ordering basic tools for EJT and researching replacement keys and cores for entire site.
12/09/2022	KTV	MCC-MOM	OPR-WTO	Supervised MAA and DFH returning power to BIO1 and BIO2 analyzers after finishing air valve wiring.
12/09/2022	MAA	MCC-MOM	PRG-PLC	At PLC3 Bio1 and Bio2 programs, added Move instruction logic for raw control values for BFV's 3104 and 3204 respectively to avoid valves closing when power is introduced.
12/09/2022	DFH	MCC-MOM	CMT-INT	BFV-3204 - With KTV and MAA, reviewed programming and added raw output for the valves. Removed LOTO and tested, but found no power going to either valve. Traced wiring and found the wires not landed at the lighting panel.
12/09/2022	MAA	MCC-MOM	CMT-ELT	BFV-3204 Removed LOTO and powered valves. No power at valve. Found wiring for valve is not landed at lighting panel. Removed LOTO and powered valves. No power at valve. Found wiring for valve is not landed at lighting panel.
12/09/2022	GXK	MCC-MOM	OPR-WTO	Assisted MAA, and DFH with the power to the aeration air flow actuated valves. I listened in to KTV training.
12/09/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/09/2022	KTV	MCC-MOM	PRG-PLC	With MAA and DFH, reviewed PLC logic for MOV-4700 in preparation for writing logic for the air flow valves. During this process, discovered the air flow valves had no power. Helped MAA and DFH troubleshoot and find that the power for the valves isn't landed at the lighting panel. Plan to finish wiring next week. Reviewed lighting panel circuits and shut down process with GXK in preparation for next week.
12/09/2022	MAA	MCC-MOM	PRG-TRN	With KTV and DFH; training on Studio 5000 PLC logic on Programs, user-defined tags, data types and add-on instructions.
12/09/2022	CEA	MCC-MOM	CMT-GLB	LSHH-420X membrane tanks high levels float switches: floats testing - okay, adjusted positions of the floats.
12/09/2022	DFH	MCC-MOM	OPR-WTO	PLC programming training with MAA and KTV.
12/09/2022	CEA	MCC-MOM	CMT-GLB	Flushed with high-pressure plant water the RAS and WAS lines.
12/10/2022	CEA	MCC-MOM	OPR-WTO	Plant process checks normal and reviewing of process data trends. Bluff and Legacy Parks pumping stations checks- okay.
12/10/2022	JAA	MCC-MOM	OPR-WTO	Perform pH and EC test after calibrating the probe. Collect daily samples Iced and storage.
12/10/2022	CEA	MCC-MOM	OPR-WTO	Alarm received and acknowledged; remotely logged-in plant status checks revealed alarm condition PDPS excessive 15 minutes increased, no corrective action was needed.
12/11/2022	RRV	MCC-MOM	OPR-WTO	2343 Alarm: PDPS Excessive 15-Minute Level Increase. Alarm is due to rain. No problems noted and the plant flow controller is adjusting as expected in response to the increase in flow due to rain runoff entering the PDPS.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/11/2022	GXK	MCC-MOM	OPR-WTO	Responded to multiple alarm dialer calls reporting active ch.2 alarm conditions. Logged in remotely and found the cause for the alarm to be PDPS excessive 15 minutes level increase due to rain. The level in the EQT is normal due to low flow day. Nevertheless, I increased the A ratio from 1.3 to 1.5 to bring the production rate from 61 to 71 GPM. Inspected all other trends all look normal.
12/11/2022	RRV	MCC-MOM	OPR-WTO	0331 Alarm: Power Failure due to rain affecting multiple process units. It was only a brief failure, enough to trip some VFDs, but commercial power was not off long enough to start the generator. BL-3510 tripped and I was able to reset it. P-1250 tripped and no remote reset is possible. P-1220 was in OFF, so it did not start automatically as the backup to P-1250, but it came on when I switched it to AUTO. However it will only pump 75 gpm, and the plant flow control program is asking for about 100 gpm. Since the membranes are running at 100gpm, they are dragging down the level in the Post Anoxic Tank. Put plant flow control program in HAND and adjusted the A Ratio manually to the highest value that matches EQ and MBR flow at comparative values that allow for proper PAT level control, which turned out to be about 0.80. Site visit required to reset P-1250.
12/11/2022	CEA	MCC-MOM	OPR-WTO	Plant status and logbook activity checks contacted RRV to check on the status of a site visit to reset various equipment failures overnight due to power outages, RRV will be on site this morning. Monitoring plant process.
12/11/2022	RRV	MCC-MOM	OPR-WTO	Reset P-1250 and put it back into service. Monitored subsequent flow control and noticed some anomalies, which may be due to my lack of understanding of the new program. After a brief period of operation, P-1250 transitioned to "Not Ready" for no apparent reason and P-1220 started, running in parallel with P-1250, which was still running in AUTO in spite of indicating Not Ready. Switched P-1250 OFF and back to AUTO and it transitioned to READY, took over lead positions and P-1220 dropped off. No time to troubleshoot this now due to other emergencies. I'll keep an eye on it and come back to it as time allows.
12/11/2022	EDM	MCC-MOM	SAM-WTO	Took daily EFF samples and prepared sample paperwork for lab pick-up.
12/12/2022	MAA	MCC-MOM	OPR-GLB	Build order and searched for parts for P-1250 VFD key pad installation.
12/12/2022	KTV	MCC-MOM	PRG-PLC	While reviewing IP list, found some addresses which are no longer in use. Decided to ping all IPs on the subnet to verify current IPs in use, and plan to verify those IPs later. Discussed improving network configuration with RRV.
12/12/2022	MAA	MCC-MOM	OPR-TRN	With GXK; training on AutoCAD scaling of electrical components.
12/12/2022	GXK	MCC-MOM	OPR-WTO	Work with MAA on the P1250 field wiring plans. We looked into the current electrical enclosure dimensions. We selected suitable contactors for the 7.5 HP motors and a control relay. We put together an AutoCAD drawing to get a sense of the size of the new larger enclosure. We selected a similar type of enclosure but larger and placed an order.
12/12/2022	MAA	MCC-MOM	OPR-TRN	Continued AutoCAD training while also searching and building order for JB-1250 retrofit with GXK.
12/12/2022	CEA	MCC-MOM	OPR-WTO	With GXK, discussing plant operations and A Ratio productions adjustments over the weekend.
12/12/2022	CEA	MCC-MOM	OPR-WTO	Observed MBR 1 CC completed, Check chemicals room equipment and tote tank levels, scheduled chlorine tanks refill delivery on 12/14.| Decreased production A Ratio from 1.5 to 1.3.
12/12/2022	KTV	MCC-MOM	PRG-PLC	Copied ping results into device list and sorted to a list of addresses that responded to ping. Started comparing the ping list to the original device list.
12/12/2022	DFH	MCC-MOM	OPR-WTO	Inventory and sorting EJT tools.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/12/2022	CEA	MCC-MOM	OPR-WTO	Plant process and logbook activity checks, increased production A Ratio from 1.0 to 1.50. in preparation for the heavy rain. Observed P-1250 performance P-8130 tripped, reset at LCP, and resumed Cl2 dose.
12/12/2022	MAA	MCC-MOM	OPR-WTO	Received message from KTV requesting check of active alarms; found EQ insufficient pump up and PDPS excessive 15 min level increase alarms which had since then cleared.
12/12/2022	MAA	MCC-MOM	OPR-WTO	SCADA check. Reviewed PDPS excessive 15 min level increase and EQ insufficient pump alarms with KTV. Reviewed logic for EQ pumps with KTV in regard to control and alarms. Reviewed Lighting panels TP-LP3A/B for later work on landing wiring to spare breakers.
12/12/2022	KTV	MCC-MOM	OPR-WTO	Reviewed EQ Smoothing program with RRV and discussed weekend issues. RRV wants to get P-1250 on data control as soon as possible so that it is resettable remotely. Reviewed VFD keypad installation steps with MAA since the keypads need to be installed to make changing parameters accessible during programming.
12/12/2022	MAA	MCC-MOM	OPR-GLB	Continued review and training with KTV on EQ pumps P1250 and P-1220 logic. At JB-1250 and PLC6 electrical rooms reviewing upcoming work and parts needed to add VFD keypad to P-1250 bucket.
12/12/2022	KTV	MCC-MOM	PRG-PLC	Checked PLC4 to GS4 ethernet IP MSG instruction and reviewed help file. Overall, implementation seems straightforward. Started reviewing site device list for IP selection.
12/12/2022	MAA	MCC-MOM	SAM-WTO	Collected daily samples, calibrated ph and EC probes, took pH and EC readings. Updated sample log book.
12/12/2022	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. Talked to CEA about the weekend's events.
12/13/2022	KTV	MCC-MOM	PRG-PLC	Reviewed programming in PLC4 for VFD ethernet IP controls.
12/13/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs.
12/13/2022	KTV	MCC-MOM	PRG-PLC	Selected IP addresses for B-7120 and P-1250. Continued verifying device IP addresses onsite.
12/13/2022	DFH	MCC-MOM	OPR-WTO	Collected door cylinder and locking mechanism measurements to find replacements.
12/13/2022	JAA	MCC-MOM	GMT-AUT	Clean truck and organize tools.
12/13/2022	DFH	MCC-MOM	OPR-WTO	Researching SFIC cores and cylinders for site. Started working on spreadsheet of tools and equipment.
12/13/2022	CEA	MCC-MOM	OPR-WTO	Plant checks. Bluff and Legacy park pumping stations, and IW2 operations checks -normal.
12/13/2022	CEA	MCC-MOM	CMT-GLB	MBT alarm Blower 2 low flow: inspection of B-7120 all normal, reset and restart the motor is making an unusual noise, disabled and resumed aeration with B-7110 will inspect the motor on the next visit.
12/14/2022	CEA	MCC-MOM	OPR-WTO	Plant status checks, review of ignition alarms notifications, check Headworks equipment, manually ran coarse screen and vortex grit removal- all normal. Review process data trends and discuss with KTV alarms history conditions.
12/14/2022	MAA	MCC-MOM	OPR-WTO	SCADA check and Headworks walkthrough.
12/14/2022	MAA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/14/2022	KTV	MCC-MOM	OPR-WTO	Reviewed scope of work with MAA for installing external keypads on B-7120 and P-1250. Continued reviewing logic and manuals for VFDs. Shut down B-4620 to investigate how it is connected to the network and attempted to download parameters but was unable to due to not having the correct cable. Researched parameters for GS4 and GS20 to switch control to ethernet IP.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/14/2022	MAA	MCC-MOM	OPR-WTO	Completed walk-through. Noticed Process blower room louder than usual.
12/14/2022	MAA	MCC-MOM	OPR-WTO	Discussed keypad work with KTV. Relayed process blower room observation. Checked BIO blower trends; reason for louder sound was due to increased blower speed due to fluffing cycle. Reviewed Keypad installation and drive models/parameters with KTV. Assembled parts and began working on mounting keypad on B-1270 bucket.
12/14/2022	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. Discussed RW lines flushing maintenance and procedures with KTV.
12/14/2022	KTV	MCC-MOM	PRG-PLC	Drafted flow chart plan of necessary installation and programming steps to get B-7120 and P-1250 on data control.
12/14/2022	MAA	MCC-MOM	CMT-GLB	LOTO bucket; cut aluminum sheet for keypad. Removed existing keypad and mounting base.
12/14/2022	MAA	MCC-MOM	CMT-GLB	Installed keypad and base. Made ethernet cable. Installed Comm card.
12/14/2022	MAA	MCC-MOM	CMT-GLB	Cut and prepped mounting for keypad.
12/14/2022	MAA	MCC-MOM	GMT-HSK	Picked up and cleaned work area.
12/15/2022	CEA	MCC-MOM	OPR-WTO	Plant status checks - normal, review alarms log and check for active alarms conditions. Bluff and Legacy parks pumping stations and IW2 cheks.
12/15/2022	MAA	MCC-MOM	OPR-WTO	With KTV; reviewed flow chart of upcoming programming for B-7120 and P-1250.
12/15/2022	MAA	MCC-MOM	CMT-INT	Removed old VFD keypad, mounted Automation Direct Keypad, and made appropriate connections. Programmed IP, subnet, and gateway parameters locally at VFD. Could not ping. With KTV; checked com card; jumper installed which kept card from functioning. Removed jumper; card ok and VFD pings.
12/15/2022	MAA	MCC-MOM	CMT-INT	Programmed IP, gateway and subnet parameters locally at VFD. Connected ethernet to PLC2 Switch; ping not successful and switch does not recognize ethernet cord. Tested with straight-through ethernet cable; no luck. Tried other ports on switch; not successful. Further investigation required.
12/15/2022	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.
12/15/2022	MAA	MCC-MOM	CMT-INT	KTV; found VFD has no comm card installed. Installed comm card from spare VFD.
12/15/2022	MAA	MCC-MOM	SAM-WTO	Collected daily and monthly EFF samples. Calibrated ph and EC probes. Updated sampling sheet.
12/15/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/15/2022	MAA	MCC-MOM	PRG-PLC	With KTV; updated AI2 and speed scaling for B-1720 on PLC7. Tested, ok. Reviewed subroutines with KTV.
12/15/2022	MAA	MCC-MOM	CMT-GLB	Investigating level increase alarm from plant drain pump station. Found excess flow coming from Headworks. Found SC-2310 in AUTO and SC-2320 OFF with valves in opposite configurations. Valved opened SC-2310 to divert flow there and closed SC-2320.
12/15/2022	MAA	MCC-MOM	CMT-GLB	Placed MBT offline, LOTO bucket and installed VFD covers. Resumed MBT operation.
12/15/2022	MAA	MCC-MOM	CMT-GLB	With KTV; investigated and found root cause of screens switching; due to earlier PLC programming and update. Valved SC-2320 open and closed SC-2310; resumed SC-2320 in Auto and SC-2310 OFF to keep current rotation. Washed down headworks area. Will need to do another go-around tomorrow in drain area.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/15/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs. Talked to MAA and KTV about the P1250 VFD issues.
12/15/2022	JAA	MCC-MOM	OPR-WTO	Review SCADA and trends.
12/16/2022	KTV	MCC-MOM	PRG-PLC	Discussed current status of various programming projects with RRV. Noticed clearwell level was showing 0.0 feet. Checked the wiring at PLC6 and verified I had no voltage on the transmitter. Located spare transmitter with DFH and gave to MAA and EJT to install. During installation, MAA found a corroded wire on the local display. After fixing the corroded wire, level came back to normal. While they were working on fixing the transmitter, I configured PLC6 tags and SCADA integration for the alarm dialer. Note that clearwell level stopped working around 2300 yesterday, but there was no dial-out alarm. This resulted in some flow to percolation pond 2 that will have to be calculated from flow trends later.
12/16/2022	DFH	MCC-MOM	OPR-WTO	Locate and retrieve SLT in storage for KTV.
12/16/2022	MAA	MCC-MOM	CMT-INT	With EJT and KTV, troubleshooting LIT. Found corrosion on power terminals to Prosense panel meter wired in series to LIT. Cleaned terminals and re-spliced. Verified LIT functional with KTV.
12/16/2022	KTV	MCC-MOM	PRG-PLC	Reorganized PLC6 alarms and added telltale routine. Integrated all current PLC6 alarms into Ignition and added alarms for clearwell level high and clearwell level low. Continued updating PLC2 alarms.
12/16/2022	MAA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/16/2022	MAA	MCC-MOM	OPR-WTO	With CEA and EJT; walked through Upper zone and Lower zone flow paths. Reviewed SCADA and trends. Checked clear well trends; LIT failed ~ 10pm last nigh thus preventing lower zone from receiving flow until LIT resumed operation shortly before 6am this morning. Looked up DPM1-A-LP digital panel meter specs.
12/16/2022	CEA	MCC-MOM	OPR-WTO	Plant operations checks, with MAA and EJT reviewing Upper and Lower zones piping network, review of levels trends, and alarms logs.
12/16/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/16/2022	MAA	MCC-MOM	SAF-OSC	Safety modules.
12/16/2022	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.
12/16/2022	KTV	MCC-MOM	PRG-PLC	Finished moving all important SCADA alarms for PLC2 to the dialer program. Created comm fail logic between PLC2 and PLC3/4. PLC2 alarms initial list is now complete.
12/16/2022	CEA	MCC-MOM	CMT-INT	The washer compactor drain line was plugged up removed drain line and flushed with high-pressure plant water clearing the blockage. Cleaned up the job site.
12/16/2022	MAA	MCC-MOM	SAM-WTO	Process readings, BIO2, and MBT MLSS analysis. Logged results.
12/16/2022	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrate the probe. Collect daily samples Iced and storage.
12/16/2022	CEA	MCC-MOM	CMT-GLB	During the fine screen inspection found one of the stabilizer wheels, disabled the unit, and hang LOTO. Removed stabilizer wheel revealed a broken pin, discussed with GXK repairing or replacing parts. Swapping fine screens SC-2310 in service. Housekeeping.
12/16/2022	JAA	MCC-MOM	GMT-HSK	Clean, remove leaves and debris from the chemical room.

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202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/16/2022	KTV	MCC-MOM	OPR-WTO	Downloaded trend data, calculated effluent flow to percolation pond 2, and added totals to the data spreadsheet.
12/16/2022	MAA	MCC-MOM	SAF-OSC	Continued safety modules.
12/16/2022	MAA	MCC-MOM	SAF-OSC	Completed modules.
12/16/2022	JAA	MCC-MOM	GMT-HSK	Assist MAA cleaning headworks.
12/16/2022	MAA	MCC-MOM	GMT-HSK	Jetted drains from above to drain standing water under vortex.
12/16/2022	BLV	MCC-MOM	GMT-JAN	Janitorial Services.
12/17/2022	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.
12/17/2022	CEA	MCC-MOM	OPR-WTO	Plant process checks, Headworks check- normal. Collect daily eff samples for lab analysis, and prepare a cooler for courier pick up.
12/18/2022	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
12/18/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Reviewed logbook, sampling logs, and process logs.
12/19/2022	CEA	MCC-MOM	OPR-WTO	Plant process checks, and review process data trends. Bluff Park irrigation cycle in progress. Bluff and Legacy parks, and IW2 operations check- all normal.
12/19/2022	DFH	MCC-MOM	SAM-WTO	Sampling bottle inventory and sorting with JRW and EJT.
12/19/2022	KTV	MCC-MOM	PRG-PLC	Created subroutine for alarm bypass logic and started creating tags and assigning starting values.
12/19/2022	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.
12/19/2022	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/19/2022	KTV	MCC-MOM	OPR-WTO	Received zone 4 alarm. Found the cause of the alarm was MBR shutdown due to UV unavailable. UV seems to be unavailable because of low intensity at UV-5120 which caused a major fault. Put UV-5120 in priority 3 and was able to clear the alarm, but the system wouldn't restart. Attempted looking through the logic and HMI, but was unable to figure out why the system wouldn't automatically enter warming mode. Cycled power to PDC-51X0 and LCP-5100. On resumption of power, the UV started normally. Reviewed lamp replacement with DFH since UV-5120 is indicating 2 failed lamps. Hung LOTO on PDC-5120 so DFH can remove the cover and motor.
12/19/2022	DFH	MCC-MOM	CMT-GLB	Install and test replacement key core and cylinder on OPS door. The cam that came on the cylinder is too short. Researched and ordered replacement cam.
12/19/2022	DFH	MCC-MOM	CMT-INT	Performed LOTO on UV-5120 with KTV. Reviewed removal of motor and lamp replacement. Removed motor and found small leak on the shaft of the wiper blade which show a broken seal to cover the bearings. Remove and replaced lamps on #1 and #2. With KTV, removed LOTO, cleared latched alarm, and placed UV2 into priority 1 position.
12/19/2022	KTV	MCC-MOM	PRG-PLC	Created alarm bypass logic for detecting a change in bypass status. Any change to any bypass button will start the bypass program.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/19/2022	KTV	MCC-MOM	PRG-PLC	Tested saving controller memory before putting controller in program mode to delete some unused tags. On return to run mode, all memory stayed the same, so this is the required procedure for any transition out of run mode in the future. Finished basic address assignment and alarm bypass sequencer logic.
12/19/2022	GXK	MCC-MOM	OPR-WTO	Logged in remotely. Checked plant functions OK. Inspected trends are normal. Noticed someone is working on the UV. Reviewed logbook, sampling logs, and process logs. Adjusted chlorine multiple.
12/19/2022	KTV	MCC-MOM	PRG-PLC	Finished alarm bypass counter logic and tested. Found some bugs which caused a controller fault and corrected (accidentally addressing negative array members due to wrong execution order of pointers). Logic works properly for enabling multiple bypasses and subsequently disabling them in sequence; however, there still needs to be a way to evaluate if a button is manually disabled and revert the change in the list. Started researching ways to count bits for evaluating button changes.
12/20/2022	CEA	MCC-MOM	OPR-WTO	Plant process routine checks - normal. Bluff and Legacy parks pumping stations, and IW2 operations checks.
12/20/2022	KTV	MCC-MOM	PRG-PLC	Started alarm bypass manual disable logic. Created bit counters to compare NEW bits to OLD bits; if there are fewer NEW bits then apply OLD - NEW. If there are more NEW bits then apply the original NEW - OLD.
12/20/2022	KTV	MCC-MOM	PRG-PLC	Continued timed bypass logic. Tested using bit average instead of counting bits since counting bits is very messy in the ladder. Bit average appears to work, so will continue using it for now.
12/20/2022	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.
12/20/2022	KTV	MCC-MOM	PRG-PLC	First version of the manual enables logic isn't working as expected. Tried a couple of modifications but I keep getting negative numbers appended to the list instead of writing 0 to a member of the list.
12/20/2022	CEA	MCC-MOM	SAM-WTO	Collect weekly process and Eff weekly and daily compliance samples for lab analysis. Housekeeping of lab and checked with GXK on lab supplies inventory. Prepare MLSS samples for analysis at the MCC lab.
12/20/2022	JAA	MCC-MOM	GMT-HSK	Housekeeping IW 3 and IW 2 remove all the leaves and debris inside of the cage.
12/20/2022	GXK	MCC-MOM	ENG-DSN	Selected SOOW cord for the powering of P1250A and B. Selecting cord glands. Selecting parts for the P1250B priming and troubleshooting modifications.
12/20/2022	KTV	MCC-MOM	PRG-PLC	Disabled the non-functional manual alarm bypass enable logic but left for future reference. Plan to draw out the problem with a flow chart before trying again.
12/20/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/20/2022	JAA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/20/2022	CEA	MCC-MOM	PMT-INT	Completed equipment calibrations.
12/20/2022	CEA	MCC-MOM	CMT-GLB	Pump fails to start, check VFD and the bucket shows no faults, attempt to run the pump at the bucket with no success, possible blockage in the pump impeller will remove the pump for inspection.
12/20/2022	JAA	MCC-MOM	OPR-GLB	Apply steel cleaning gel on the coarse screen to remove all the rust buildup on the outside of the case.
12/20/2022	CEA	MCC-MOM	CMT-GLB	Set up the crane service truck to remove the pump, hang LOTO, and proceed to remove the pump. Pump inspection revealed the impeller was jammed with what appears to be a piece of HDPE piping, removed the blockage, and free the impeller.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/20/2022	GXK	MCC-MOM	CMT-MET	Assisted CEA troubleshoot the pump. We set up the service truck crane and we fished out the pump. Inspection of the impeller revealed a 6" x 3" piece of HDPE pipe was stuck against the chopping blade. We extracted the piece and placed the pump back into the INF well.
12/20/2022	CEA	MCC-MOM	CMT-GLB	Pump tests normally when running locally at the bucket, after put in it back in the auto position and attempting to run from SCADA pump fails to start, possible issue with VFD setting. Reported finding to RRV and KTV.
12/20/2022	KTV	MCC-MOM	OPR-WTO	Responded to alarm call from RRV/CEA. Trouble getting P-1110 running in AUTO. On arrival, found Com Card fault on VFD. Reset and this changed to Ext. Fault. Reviewed wiring and determined that the external fault was caused by the VFD fault relay (possibly required to trip the UA indicator locally). Reviewed VFD settings and found the most recent setting was changing Command Reference 2 to Comm Card. Checked P-1120 and this setting was set to Terminals. Changed P-1110 to Terminals and tested okay in AUTO. Monitored a few pump cycles to verify proper operation before leaving site. Note - the QUICK button is persistent across all VFD menus and can be used to view the last 10 parameter changes.
12/21/2022	CEA	MCC-MOM	OPR-WTO	Plant process checks. Review process data trends and logbook activity.
12/21/2022	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.
12/21/2022	DFH	MCC-MOM	OPR-WTO	Started inventory and organizing of storage containers.
12/21/2022	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.
12/21/2022	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested permeate sample for pH and EC.
12/21/2022	GXK	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/21/2022	JAA	MCC-MOM	OPR-GLB	Housekeeping membrane reactor area remove leaves and debris.
12/21/2022	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/21/2022	CEA	MCC-MOM	OPR-WTO	Observe MBR1 CC completed. Headworks and MBT operations checks. Review UV system performance. Review lab sample results.
12/21/2022	JAA	MCC-MOM	OPR-WTO	Check and review SCADA and trends.
12/21/2022	DFH	MCC-MOM	OPR-WTO	Cleaned up UV sleeves and prepared used lamps for recycling.
12/22/2022	CEA	MCC-MOM	OPR-WTO	Plant process and data trends reviewing. Investigate the cause Eff production flop to Off Spec several times on the previous day, and found AIT-4002 Off Spec flop setpoint was changed from 0.170 to 0.017, will consult with GXK later in the day. Cleaned and swapped turbidity meter cuvettes.
12/22/2022	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log, and lab sampling data.
12/22/2022	DFH	MCC-MOM	OPR-WTO	Started Inventory and organized storage containers.
12/22/2022	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.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/22/2022	DFH	MCC-MOM	SAM-WTO	Trained JRW on daily sampling, pH calibration, and EC readings. Collected permeate sample, tested pH, EC, NH3, NO2, NO3, Alk, and Cl2.
12/22/2022	JRW	MCC-MOM	SAM-WTO	Arrived at MCC to take daily sample, DFH reviewed pH & EC calibration procedures.
12/22/2022	JAA	MCC-MOM	OPR-GLB	Completed safety skills training for the month of November.
12/22/2022	DFH	MCC-MOM	OPR-WTO	Continue inventory and organization of storage containers.
12/22/2022	JAA	MCC-MOM	OPR-GLB	Completed safety skills training for month of December.
12/22/2022	DFH	MCC-MOM	SAF-OSC	Online safety training.
12/22/2022	JAA	MCC-MOM	OPR-WTO	Check and review SCADA and trends.
12/22/2022	DFH	MCC-MOM	GMT-HSK	General housekeeping of Ops building.
12/23/2022	CEA	MCC-MOM	OPR-WTO	Plant process checks. Bluff and Legacy parks pumping stations, and IW2 operations checks.
12/23/2022	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.
12/23/2022	DFH	MCC-MOM	GMT-HSK	General housekeeping around membranes, UV, lower and upper distribution.
12/23/2022	GXK	MCC-MOM	OPR-WTO	Plant checks. Inspected trends are normal and process health. Reviewed recent logs.
12/23/2022	CEA	MCC-MOM	PMT-INT	Completed equipment calibrations.
12/23/2022	CEA	MCC-MOM	CMT-INT	Perform 2 points calibration- normal. Verify pH reading vs handheld meter - normal @ 6.8.
12/23/2022	CEA	MCC-MOM	OPR-WTO	Checking the Bioreactor 2 process.
12/23/2022	DFH	MCC-MOM	CMT-PLB	Started on removal of old ecoflush toilet flushing system to install new system.
12/23/2022	GXK	MCC-MOM	GMT-HSK	Asked DFH to replace the toilet flushing system. Also asked him to exercise the headwork valves.
12/23/2022	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested permeate sample for pH and EC.
12/23/2022	DFH	MCC-MOM	CMT-PLB	Completed install of new Ecoflush toilet system.
12/23/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/23/2022	JAA	MCC-MOM	GMT-AUT	Clean truck. Organize and clean tools.
12/23/2022	DFH	MCC-MOM	GMT-AUT	General truck maintenance and housekeeping.
12/23/2022	DFH	MCC-MOM	GMT-HSK	Genera housekeeping.
12/23/2022	BLV	MCC-MOM	GMT-JAN	Cleaned MCC
12/23/2022	CEA	MCC-MOM	OPR-WTO	Plant status checks. Schedule the trash trap haul 2500 gals for the next day in preparation for the Holyday weekend. Sent an email to JAA requesting to assist EJP.
12/24/2022	KTV	MCC-MOM	OPR-WTO	Remote SCADA and trend review okay.
12/24/2022	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrate the probes. Collect daily samples Iced and storage.
12/25/2022	EDM	MCC-MOM	SAM-WTO	Took daily EFF samples and prepared sample paperwork for lab pick-up. Took daily pH and EC reads, added pH and temperature to COC.
12/26/2022	KTV	MCC-MOM	OPR-WTO	Trained EJT and JRW on pH/EC calibration and daily sample collection. Reviewed basic concepts related to pH/EC and operations.
12/26/2022	EJT	MCC-MOM	GEN-TRN	Training-collection of final effluent quality check NH3, NO3, NO2, Alk, pH.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/26/2022	JRW	MCC-MOM	OPR-TRN	With KTV & EJT, KTV reviewed MCC's daily sampling procedures & parameters to watch for such as flow, intensity, and UV dosage before taking sample. First did so by calibrating pH/EC probe. Then taking sample, returning sample to metal drop-box. Then began process checks for MCC.
12/26/2022	JRW	MCC-MOM	OPR-WTO	With EJT, ran effluent process checks for MCC. Ran NH3, NO3, NO2, Alk, pH, & EC. After doing so, finished organizing previous COC's, then started on housekeeping procedures.
12/27/2022	CEA	MCC-MOM	OPR-WTO	Plant operations checks. Bluff and Legacy parks pumping stations, and IW2 checks- normal.
12/27/2022	DFH	MCC-MOM	SAM-WTO	Training EJT on MLSS sample collection and testing.
12/27/2022	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. Inventory of reagents and placed supplies orders.
12/27/2022	CEA	MCC-MOM	PMT-GLB	Hauled 10,000 gallons from Solids Storage Tank.
12/27/2022	DFH	MCC-MOM	SAM-WTO	Collected Weekly process, Weekly A, Weekly INF, and daily EFF samples. Calibrated and measured permeate sample for pH and EC.
12/27/2022	KTV	MCC-MOM	PRG-PLC	Exported Ignition project and sent to tech support for help with the alarm notification pipeline triggering despite being disabled. Revisited manual alarm bypass disable logic and started mapping out the program flow.
12/27/2022	DFH	MCC-MOM	SAM-WTO	Collected BIO2 and MBT samples for MLSS analysis. Started MLSS analysis.
12/27/2022	GXK	MCC-MOM	OPR-WTO	Continue with the design of the P1250 double pump controller. Selected knockout tools, suitable 4-conductor cables, and liquid tight glands. Placed an order.
12/27/2022	DFH	MCC-MOM	SAM-ADM	Sampling bottle inventory and COC filing.
12/27/2022	KTV	MCC-MOM	PRG-PLC	Finished program flow draft.
12/27/2022	KTV	MCC-MOM	PRG-PLC	Reviewed and revised program flow draft for errors. Plan to program and test tomorrow.
12/28/2022	KTV	MCC-MOM	PRG-PLC	Decided to test the new timed bypass concept on List 1 instead of revising List 0. Created tags and programmed the first branch of the logic - variable assignment and manual bypass disable sequence.
12/28/2022	KTV	MCC-MOM	PRG-PLC	Finished timed bypass branch 2 - bypass enable logic.
12/28/2022	DFH	MCC-MOM	OPR-WTO	Plant operations check, review level, trends, log, and lab sampling data.
12/28/2022	DFH	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/28/2022	MAA	MCC-MOM	SAM-WTO	Grabbed sample from BIO2 for MLSS analysis. Prepped filters for MLSS test and let dry.
12/28/2022	CEA	MCC-MOM	PMT-GLB	Hauled 10,000 gallons from Solids Storage Tank.
12/28/2022	DFH	MCC-MOM	PMT-INT	Completed equipment calibrations.
12/28/2022	MAA	MCC-MOM	PMT-INT	Completed equipment calibrations.
12/28/2022	KTV	MCC-MOM	PRG-PLC	Tested new timed bypass logic and it is working much better than the first routine. The problem with the first routine was that I couldn't get the INT list to reset to 0 when turning manually enabling a bypass. The new logic now correctly sets the members to 0, but the array shift isn't working right. Disabled the logic for now and plan to investigate further tomorrow.
12/28/2022	DFH	MCC-MOM	CMT-INT	With MAA, calibrated probe, and verified calibration, okay.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/28/2022	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.
12/28/2022	MAA	MCC-MOM	CMT-INT	With DFH. Calibrated; tested, ok.
12/28/2022	DFH	MCC-MOM	PMT-INT	Completed equipment calibrations.
12/28/2022	DFH	MCC-MOM	SAM-WTO	Collect daily EFF sample and tested permeate sample for pH and EC.
12/28/2022	MAA	MCC-MOM	PMT-INT	Completed equipment calibrations.
12/28/2022	DFH	MCC-MOM	PMT-INT	Completed equipment calibrations.
12/28/2022	DFH	MCC-MOM	SAM-WTO	Completed MLSS analysis from BIO2-AB3.
12/28/2022	DFH	MCC-MOM	PMT-INT	Completed equipment calibrations.
12/28/2022	GXK	MCC-MOM	OPR-WTO	Established an account with Trojan direct for maintenance parts. Attempted to purchase directly from their website but it directed me back to the same contact in the US. Purchased lab supplies.
12/28/2022	GXK	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/29/2022	KTV	MCC-MOM	PRG-PLC	Reviewed timed bypass manual re-enable issue. Through test determined the issue is likely due to execution order.
12/29/2022	CEA	MCC-MOM	OPR-WTO	Plant process check. Discussed with KTV higher influent review trends revealed Legacy parks pump station higher flow, possible source coming from the La Paz site. UVT is trending upward, decrease Pre-chlor residual from 3.7 to 3.5. Review process data trends.
12/29/2022	DFH	MCC-MOM	OPR-WTO	With MAA, investigating abnormal influent flow during off hours. Inspected MH-B6 at 6 am and saw continuous flow of ~10gpm for 15min. Spoke with the Public Works crew to verify that their building had no broken leaks. Inspected a MH behind the Public Works building which is a tie-in from the new College being built and saw about the same flow from MH-B6. Went to the front side of the construction site but there was no one to make contact with. Will try to return later in the day to see if anyone is available.
12/29/2022	KTV	MCC-MOM	PRG-PLC	Changed execution order of the array shift logic but was unable to get the expected behavior. Instead of shifting down once, the array seems to shift down multiple times, writing 0 to all members above the button that was re-enabled.
12/29/2022	MAA	MCC-MOM	OPR-WTO	With DFH investigating high flow to LPPS. Checked MH-07 at La Paz; noticed steady flow of about 10gpm with no signs of slowing down, observed for about 15 to 20 min with no signs of flow decreasing. Spoke to Public Works supervisor, checked chiller (non-operational) and checked manholes on site; same flow rate observed and noticed sewer line is tied to new SMC-Malibu campus and SMC appears to be source of flow. At SMC campus, only contractors on site, will try and return later in day to speak to supervisor.
12/29/2022	DFH	MCC-MOM	SAM-WTO	Collected MLSS sample for lab analysis with MAA. New reading at 9400mg/L and 10,000mg/L. Updated factor from 1.81 to 1.64
12/29/2022	CEA	MCC-MOM	PMT-GLB	Completed preventive maintenance.
12/29/2022	MAA	MCC-MOM	SAM-WTO	Ran MLSS analysis from BIO2 AER Basin 3.
12/29/2022	MAA	MCC-MOM	SAM-WTO	Completed MLSS analysis; 9400mg/L. Will compare with DFH's readings and consult with GXK.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/29/2022	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. Lab cleaning and inventory.
12/29/2022	DFH	MCC-MOM	OPR-WTO	Data analysis with MAA.
12/29/2022	MAA	MCC-MOM	OPR-WTO	Reviewed MLSS results with DFH and consulted with GXK. Adjusted calibration factor on AA-3253 based on results.
12/29/2022	MAA	MCC-MOM	OPR-TRN	Training with KTV and GXK on maintenance data base.
12/29/2022	DFH	MCC-MOM	CMT-GLB	Installed new core and cam on OPS door. Tested okay with no issues. Contacted supplier whom I originally placed order with and confirmed keyed alike options. Placed order for keys, cores, mortise cylinders, and cams.
12/29/2022	JRW	MCC-MOM	SAM-WTO	Obtained MCC'S daily sample.
12/29/2022	DFH	MCC-MOM	OPR-WTO	Inventory and data analysis with MAA.
12/29/2022	MAA	MCC-MOM	OPR-TRN	Ignition training.
12/29/2022	DFH	MCC-MOM	OPR-WTO	Inventory management.
12/29/2022	MAA	MCC-MOM	OPR-TRN	Reviewed Maintenance list and CMT/PMR equipment already in system.
12/30/2022	KTV	MCC-MOM	PRG-PLC	On arrival found low BIO2 AB1 pH ~ 6.4, but no active alarm. This used to be a dial-out alarm so investigated and found that the alarms I named for PLC3 in Ignition were based on the PLC6 telltale which wasn't all programmed for PLC3, so some of the PLC3 alarms were bypassed. Started naming all the alarms and enabling them on Ignition. Continued alarm disable logic and it is now working properly for PLC2 List 1. Tested a variety of configurations all working as expected.
12/30/2022	CEA	MCC-MOM	OPR-WTO	Plant status check- normal. Bluff and Legacy park, and IW2 checks.
12/30/2022	KTV	MCC-MOM	PRG-SDA	Updated Alarm Dialer screen with better animations for the overview, changed the email button to the default alarm value for the list timed bypass logic and limited this button to supervisors only. Updated data type and template accordingly. Remote assistance from Ignition Tech support on why the disabled pipeline continues to send emails.
12/30/2022	KTV	MCC-MOM	PRG-SDA	Ignition tech support helped diagnose that the OneWay notification profile was sending the disabled email alarms; however, still unsure why it was being called to begin with - could be called in a script somewhere in the project. Also got some feedback on the historical database tags that don't exist. Need to inspect all components which query the historical database to see if there's some piece of those components that is attempting to call tags that no longer exist. Copied timed bypass logic from PLC2 to PLC3 and PLC6.
12/30/2022	EJT	MCC-MOM	SAM-WTO	Sample collection, weekly EFF(B), weekly INF(COMP).
12/30/2022	EJT	MCC-MOM	SAM-WTO	Daily EFF sample (GRAB).
12/30/2022	KTV	MCC-MOM	PRG-SDA	Added timed bypass setpoints for Headworks, Bioreactors and Clearwell to the Alarm Dialer screen. Showed CEA how to use the new changes. Sent email to RRV, CEA and GXK explaining the new changes.
12/30/2022	CEA	MCC-MOM	OPR-WTO	Review recent alarms time bypass with KTV. Headworks, MBT, and OCU bed process checks.
12/31/2022	JAA	MCC-MOM	SAM-WTO	Perform pH and EC test after calibrate the probe. Collect daily samples Iced and storage.
12/31/2022	KTV	MCC-MOM	OPR-WTO	Headworks Alarms - PDPS Excessive 15 Minute level increase and EQ tank insufficient pump up. Both alarms caused by rain. Disabled both on timed bypass and monitored EQ control remotely.

INTEGRATED PERFORMANCE CONSULTANTS

202212_mcc_onm Report

Period: 12/01/2022 - 12/31/2022

Date	Name	Job	Task	Notes
12/31/2022	KTV	MCC-MOM	OPR-WTO	Re-enabled timed bypasses as they expired and continued to call due to rain. Remote check each time showed EQ controls handling the increased flow well.

Malibu Civic Center Wastewater Treatment Facility

Fourth Quarter 2022 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

January 16, 2023

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January 16, 2022
Project No: 20-09665

Yolanda Bundy
Environmental Sustainability Department Director
Building Official
City of Malibu
23825 Stuart Ranch Road
Malibu, California 90265

Subject: Fourth Quarter 2022 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 Fourth Quarter 2022 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 Fourth Quarter 2022 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.

Torin Snyder, PG, CHG, TOR, QSD/P
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 18 day of January 2023 at Malibu, CA. 2:46pm.

Yolanda Bundy
_____
Signature

Environmental Sustainability Director / Building Official
_____
Title

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Appendix A Groundwater and Surface Water Field Sheets
Appendix B Analytical Laboratory Reports

1 Introduction

This report presents the results of groundwater and surface water monitoring activities conducted during the fourth quarter of 2022 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 Fourth Quarter 2022

The following activities were completed during the fourth quarter of 2022:

- Rincon measured depth to water in groundwater monitoring wells on October 17, November 1, and December 12, 2022 (Task V)
- Rincon collected and analyzed groundwater samples for WDR/MRP (Task II) compliance on November 2 and 3, 2022
- Rincon collected and analyzed surface water samples for WDR/MRP (Task II) compliance on November 3, 2022

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 fourth quarter of 2022, changes in elevation compared to the third quarter of 2022, and historical groundwater elevation range.

Summary of Groundwater Elevations – Shallow Zone

4th Quarter 2022			3rd Quarter 2022			Historical	
Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum
3.03 (MCWP-MW10)	18.84 (SMBRP-8)	7.77	4.72 (MCWP-MW08)	20.29 (SMBRP-8)	8.09	1.09 (CCPE, 05/2020)	25.38 (SMBRP-8, 05/2017)

Changes from October to December 2022						
Decrease			Increase			Average Change
# Observed	Maximum	Average	# Observed	Maximum	Average	
14	-2.62 (SMBRP-2)	-1.28	8	1.98 (SMBRP-6)	0.91	-0.49

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
October[1]	0.0026	South-southeast
November	0.0026	South-southeast
December[1]	0.0029	South-southeast

[1] GH8-M3 was used to calculate the December gradient 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 fourth quarter of 2022, changes in elevation compared to the third quarter of 2022, and historical groundwater elevation ranges:

Summary of Groundwater Elevations – Deep Zone

4th Quarter 2022			3rd Quarter 2022			Historical	
Minimum	Maximum	Average	Minimum	Maximum	Average	Minimum	Maximum
5.86 (MCWP-MW02)	10.75 (MCWP-MW09)	7.41	5.56 (MCWP-MW07D)	10.84 (MCWP-MW09)	9.33	3.73 (MCWP-MW07D, 3/2022)	11.55 (MCWP-MW09, 12/2015)

Changes from October to December 2022						
Decrease			Increase			Average Change
# Observed	Maximum	Average	# Observed	Maximum	Average	
4	-1.59	-0.58	4	0.39	0.22	-0.18

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 fourth quarter of 2022, changes in elevation compared to the third quarter of 2022, and historical groundwater elevation ranges.

Summary of Groundwater Elevations – Winter Canyon

4th Quarter 2022			3rd 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 October to December 2022						
Decrease			Increase			Average Change
# Observed	Maximum	Average	# Observed	Maximum	Average	
2	-1.10 (LAMW-5S)	-0.61	0	-	-	-0.61

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 fourth quarter 2022 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 fourth quarter 2022 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 November 3, 2022. 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	2,000 (N-004)	2,400 (N-001 through N-003)	2,300	MPN/100 mL
Fecal Coliform	3	16 (N-003)	42 (N-001)	20.6	MPN/100 mL
Nitrate as Nitrogen	0	-	-	-	mg/L
Nitrite as Nitrogen	0	-	-	-	mg/L
Organic Nitrogen	4	0.69 (N-003)	0.91 (N-004)	0.81	mg/L
Ammonia Nitrogen	1	-	0.063 (N-001)	0.053	mg/L
Total Kjeldahl Nitrogen	4	0.69 (N-003)	0.91 (N-004)	0.82	mg/L
Total Phosphorous	4	0.030 (N-003)	0.17 (N-004)	0.081	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)	2,167	MPN/100 mL
Fecal Coliform	6	7.5 (L-001)	820 (L-005)	165	MPN/100 mL
Nitrate as Nitrogen	0	-	-	-	mg/L
Nitrite as Nitrogen	0	-	-	-	mg/L
Organic Nitrogen	6	0.51 (L-006)	0.94 (L-005)	0.65	mg/L
Ammonia Nitrogen	1	-	0.053 (L-006)	0.051	mg/L
Total Kjeldahl Nitrogen	6	0.52 (L-001 and L-002)	0.94 (L-005)	0.66	mg/L
Total Phosphorous	6	0.072 (L-006)	0.50 (L-005)	0.18	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 fourth quarter of 2022 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

Grey – Groundwater monitoring well was not sampled during this monitoring period

[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 fourth quarter of 2022. 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	7	5	5.2 (SMBRP-12, MCWP-MW07S)	>2,400 (MCWP-MW04S)	357	MPN/ 100 mL
Fecal Coliform	7	2	1.0 (MCWP-MW07S	18 (MCWP-MW04S)	3.1	MPN/ 100 mL
Nitrate as Nitrogen	7	4	0.58 (MCWP-MW04S)	7.7 (SMBRP-9)	2.2	mg/L
Nitrite as Nitrogen	7	0	-	-	-	mg/L
Organic Nitrogen	4	4	0.10 (MCWP-MW07S)	0.44 (MCWP-MW04S)	0.30	mg/L
Ammonia Nitrogen	7	6	0.12 (SMBRP-9)	8.2 (SMBRP-12)	1.6	mg/L
Total Kjeldahl Nitrogen	7	6	0.42 (SMBRP-9)	7.9 (SMBRP-12)	1.7	mg/L
Total Phosphorous	7	7	0.052 (MCWP-W04D)	0.86 (SMBRP-12)	0.37	mg/L
Total Dissolved Solids	7	7	1,200 (MCWP-MW07D)	7,000 (SMBRP-12)	2,814	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 First Quarter of 2023

The following activities will be completed during the third quarter of 2022:

- Prepare and submit this Fourth Quarter 2022 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 January, February, and March 2023 (Task V)

8 Summary of Monitoring Activities

8.1 Groundwater Elevations

Consistent with past observations, shallow groundwater generally flows south-southeast. During the fourth quarter of 2022, groundwater elevations decreased in 63 percent of shallow wells (14 out of 22), decreased in 50 percent of deep wells (4 out of 8), and decreased in both Winter Canyon wells, with a total average change of -0.42 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 420 MPN/100 mL of total coliform compared to the third quarter of 2022.

Fecal coliform concentrations in the Near Shore increased with an average concentration of 20.6 MPN/100 mL compared to the average concentration of 0.63 MPN/100 mL observed in the third quarter of 2022. In the Malibu Lagoon and Creek locations, fecal coliform concentrations decreased with an average concentration of 165 MPN/100 mL compared to the average concentration of 2,005 MPN/100 mL observed in the third quarter of 2022.

Nitrate as nitrogen and nitrite as nitrogen were not detected above the reporting limit in the Near Shore or Malibu Lagoon and Creek samples. Organic nitrogen averaged 0.81 mg/L in Near Shore samples and 0.65 mg/L in Malibu Lagoon and Creek samples. When compared to the third quarter of 2022, organic nitrogen concentrations had an average decrease of 0.34 and 1.31 mg/L in the Near Shore and Malibu Lagoon and Creek samples, respectively.

Phosphorous concentrations decreased with an average concentration of 0.14 mg/L compared to the average concentration of 0.26 mg/L observed in the third quarter of 2022.

8.3 Groundwater Quality

When comparing analytical results, note that seven groundwater monitoring wells were sampled during the fourth quarter of 2022 (Task II), and 15 wells were sampled during the third quarter of 2022 (Task II, III, and IV). Of the seven wells sampled during both periods, total coliform increased in four wells and decreased in three wells. The total average decrease compared to the third quarter of 2022 was 132 MPN/100 mL.

Fecal coliform was only detected above the reporting limit in two wells (MCWP-MW04S and MCWP-MW07S during the fourth quarter of 2022, with concentrations of 18 and 1.0 MPN/100 mL, respectively.

When compared to the third quarter of 2022, nitrate concentrations increased in four wells and decreased in three wells. The average concentration decreased by 1.1 mg/L when compared to the third quarter of 2022.

When compared to the third quarter of 2022, average TDS concentrations in groundwater samples slightly increased from an average of 2,297 mg/L to 2,814 mg/L in the fourth quarter of 2022.

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.

10 References

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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	10/17/2022	11.47	5.40	6.07
C-1	11/1/2022	11.47	5.39	6.08
C-1	12/12/2022	11.47	N/A	-
C-2	10/17/2022	11.19	5.25	5.94
C-2	11/1/2022	11.19	5.20	5.99
C-2	12/12/2022	11.19	6.35	4.84
CCPE	10/17/2022	12.94	5.81	7.13
CCPE	11/1/2022	12.94	5.90	7.04
CCPE	12/12/2022	12.94	8.20	4.74
CCPNE	10/17/2022	13.68	6.51	7.17
CCPNE	11/1/2022	13.68	6.58	7.10
CCPNE	12/12/2022	13.68	8.70	4.98
CCPSW	10/17/2022	13.67	6.33	7.34
CCPSW	11/1/2022	13.67	6.40	7.27
CCPSW	12/12/2022	13.67	8.40	5.27
CCW-4	10/17/2022	15.77	7.22	8.55
CCW-4	11/1/2022	15.77	7.25	8.52
CCW-4	12/12/2022	15.77	6.61	9.16
GH6-M1	10/17/2022	-	29.99	-
GH6-M1	11/1/2022	-	30.09	-
GH6-M1	12/12/2022	-	30.23	-
GH8-M3	10/17/2022	40.21	29.18	11.03
GH8-M3	11/1/2022	40.21	29.18	11.03
GH8-M3	12/12/2022	40.21	29.41	10.80
M6-1	10/17/2022	-	6.83	-
M6-1	11/1/2022	-	6.84	-
M6-1	12/12/2022	-	6.90	-
M6-2	10/17/2022	-	6.46	-
M6-2	11/1/2022	-	6.49	-
M6-2	12/12/2022	-	5.45	-
M7-1	10/17/2022	-	8.88	-
M7-1	11/1/2022	-	8.91	-
M7-1	12/12/2022	-	8.04	-
M7-2	10/17/2022	-	8.78	-
M7-2	11/1/2022	-	8.88	-
M7-2	12/12/2022	-	7.10	-
MBCMW-5	10/17/2022	19.40	N/A	-
MBCMW-5	11/1/2022	19.40	N/A	-
MBCMW-5	12/12/2022	19.40	N/A	-
MBCMW-7	10/17/2022	16.64	11.01	5.63
MBCMW-7	11/1/2022	16.64	11.00	5.64
MBCMW-7	12/12/2022	16.64	11.10	5.54
MBCMW-8	10/17/2022	16.53	9.17	7.36
MBCMW-8	11/1/2022	16.53	9.21	7.32
MBCMW-8	12/12/2022	16.53	8.45	8.08
MBCMW-9	10/17/2022	17.71	8.85	8.86
MBCMW-9	11/1/2022	17.71	8.84	8.87
MBCMW-9	12/12/2022	17.71	7.65	10.06

Shallow Groundwater Monitoring Wells				
Well ID	**Date**	**TOC Elevation** (ft)	**Depth to Water** (ft bTOC)	**Groundwater Elevation**
MBCMW-10	10/17/2022	17.74	8.30	9.44
MBCMW-10	11/1/2022	17.74	8.34	9.40
MBCMW-10	12/12/2022	17.74	8.35	9.39
MCWP-MW04S	10/17/2022	15.29	7.70	7.59
MCWP-MW04S	11/1/2022	15.29	7.70	7.59
MCWP-MW04S	12/12/2022	15.29	7.02	8.27
MCWP-MW07S	10/17/2022	13.72	6.40	7.32
MCWP-MW07S	11/1/2022	13.72	6.60	7.12
MCWP-MW07S	12/12/2022	13.72	6.50	7.22
MCWP-MW08	10/17/2022	12.21	7.62	4.59
MCWP-MW08	11/1/2022	12.21	7.77	4.44
MCWP-MW08	12/12/2022	12.21	8.95	3.26
MCWP-MW10	10/17/2022	11.11	5.82	5.29
MCWP-MW10	11/1/2022	11.11	5.88	5.23
MCWP-MW10	12/12/2022	11.11	8.08	3.03
P-4	10/17/2022	12.16	5.08	7.08
P-4	11/1/2022	12.16	5.15	7.01
P-4	12/12/2022	12.16	7.50	4.66
P-9	10/17/2022	12.17	5.15	7.02
P-9	11/1/2022	12.17	5.20	6.97
P-9	12/12/2022	12.17	N/A	-
SMBRP-2	10/17/2022	13.13	6.17	6.96
SMBRP-2	11/1/2022	13.13	8.24	4.89
SMBRP-2	12/12/2022	13.13	8.79	4.34
SMBRP-6	10/17/2022	26.88	15.88	11.00
SMBRP-6	11/1/2022	26.88	15.87	11.01
SMBRP-6	12/12/2022	26.88	13.90	12.98
SMBRP-7B	10/17/2022	18.99	11.40	7.59
SMBRP-7B	11/1/2022	18.99	11.30	7.69
SMBRP-7B	12/12/2022	18.99	11.03	7.96
SMBRP-8 (EC1-RC-MW01)	10/17/2022	48.69	29.94	18.75
SMBRP-8 (EC1-RC-MW01)	11/1/2022	48.69	30.15	18.54
SMBRP-8 (EC1-RC-MW01)	12/12/2022	48.69	29.85	18.84
SMBRP-9	10/17/2022	50.32	39.10	11.22
SMBRP-9	11/1/2022	50.32	39.25	11.07
SMBRP-9	12/12/2022	50.32	N/A	-
SMBRP-12	10/17/2022	12.62	6.65	5.97
SMBRP-12	11/1/2022	12.62	6.93	5.69
SMBRP-12	12/12/2022	12.62	7.05	5.57
SMBRP-13	10/17/2022	13.58	8.02	5.56
SMBRP-13	11/1/2022	13.58	8.25	5.33
SMBRP-13	12/12/2022	13.58	8.75	4.83
SMBRP-15B	10/17/2022	16.77	N/A	-
SMBRP-15B	11/1/2022	16.77	N/A	-
SMBRP-15B	12/12/2022	16.77	N/A	-
SMBRP-16	10/17/2022	14.50	5.60	8.90
SMBRP-16	11/1/2022	14.50	5.62	8.88
SMBRP-16	12/12/2022	14.50	3.95	10.55

Table 1
Groundwater Elevations

Deep Groundwater Monitoring Wells				
Well ID	**Date**	**TOC Elevation** (ft)	**Depth to Water** (ft bTOC)	**Groundwater Elevation**
MCWP-MW01	10/17/2022	17.90	9.83	8.07
MCWP-MW01	11/1/2022	17.90	9.98	7.92
MCWP-MW01	12/12/2022	17.90	9.80	8.10
MCWP-MW02	10/17/2022	18.06	10.61	7.45
MCWP-MW02	11/1/2022	18.06	10.67	7.39
MCWP-MW02	12/12/2022	18.06	12.20	5.86
MCWP-MW03	10/17/2022	15.31	7.36	7.95
MCWP-MW03	11/1/2022	15.31	7.40	7.91
MCWP-MW03	12/12/2022	15.31	6.99	8.32
MCWP-MW04D	10/17/2022	15.43	9.00	6.43
MCWP-MW04D	11/1/2022	15.43	9.16	6.27
MCWP-MW04D	12/12/2022	15.43	8.92	6.51
MCWP-MW05	10/17/2022	13.92	7.38	6.54
MCWP-MW05	11/1/2022	13.92	7.38	6.54
MCWP-MW05	12/12/2022	13.92	7.84	6.08
MCWP-MW06	10/17/2022	16.05	9.58	6.47
MCWP-MW06	11/1/2022	16.05	8.61	7.44
MCWP-MW06	12/12/2022	16.05	9.65	6.40
MCWP-MW07D	10/17/2022	13.21	7.26	5.95
MCWP-MW07D	11/1/2022	13.21	7.30	5.91
MCWP-MW07D	12/12/2022	13.21	6.87	6.34
MCWP-MW09	10/17/2022	16.30	5.56	10.74
MCWP-MW09	11/1/2022	16.30	5.55	10.75
MCWP-MW09	12/12/2022	16.30	5.75	10.55

Winter Canyon Groundwater Monitoring Wells				
Well ID	**Date**	**TOC Elevation** (ft)	**Depth to Water** (ft bTOC)	**Groundwater Elevation**
LAMW-5S	10/17/2022	104.55	59.53	45.02
LAMW-5S	11/1/2022	104.55	60.07	44.48
LAMW-5S	12/12/2022	104.55	60.63	43.92
SMBRP-11	10/17/2022	18.35	9.02	9.33
SMBRP-11	11/1/2022	18.35	9.25	9.10
SMBRP-11	12/12/2022	18.35	9.13	9.22

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 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

-: 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*	*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)	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-
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	✓	✓	✓	✓	✓	✓	✓	-	-	-	-	-	-	-	-	-

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

✓: 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	11/3/2022	> **2,400**	= **42**	< 10	< 10	= **0.82**	= **0.063 J**	= **0.88**	= **0.045**
Near Shore	Ankle Depth	N-002	11/3/2022	> **2,400**	= **24**	< 10	< 10	= **0.81**	< 0.10	= **0.81**	= **0.080**
Near Shore	Ankle Depth	N-003	11/3/2022	> **2,400 H**	= **16 H**	< 10	< 10	= **0.69**	< 0.10	= **0.69**	= **0.030**
Near Shore	Ankle Depth	N-004	11/3/2022	= **2,000**	< 1.0	< 10	< 10	= **0.91**	< 0.10	= **0.91**	= **0.17**
Malibu Lagoon and Creek	Ankle Depth	L-001	11/3/2022	> **2,400**	= **7.5**	< 0.10	< 1.0	= **0.52**	< 0.10	= **0.52**	= **0.16**
Malibu Lagoon and Creek	Ankle Depth	L-002	11/3/2022	= **1,000**	= **40**	< 1.0	< 1.0	= **0.52**	< 0.10	= **0.52**	= **0.10**
Malibu Lagoon and Creek	Ankle Depth	L-003	11/3/2022	> **2,400**	= **70**	< 0.10	< 1.0	= **0.70**	< 0.10	= **0.70**	= **0.13**
Malibu Lagoon and Creek	Ankle Depth	L-004	11/3/2022	> **2,400 H**	= **20 H**	< 0.10	< 1.0	= **0.70**	< 0.10	= **0.70**	= **0.088**
Malibu Lagoon and Creek	Ankle Depth	L-005	11/3/2022	> **2,400 H**	= **820 H**	< 0.10	< 1.0	= **0.94**	< 0.10	= **0.94**	= **0.50**
Malibu Lagoon and Creek	Ankle Depth	L-006	11/3/2022	> **2,400 H**	= **30 H**	< 0.10	< 1.0	= **0.51**	= **0.053 J**	= **0.56**	= **0.072**

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
MPN/100 mL: Most Probable Number per 100 milliliters

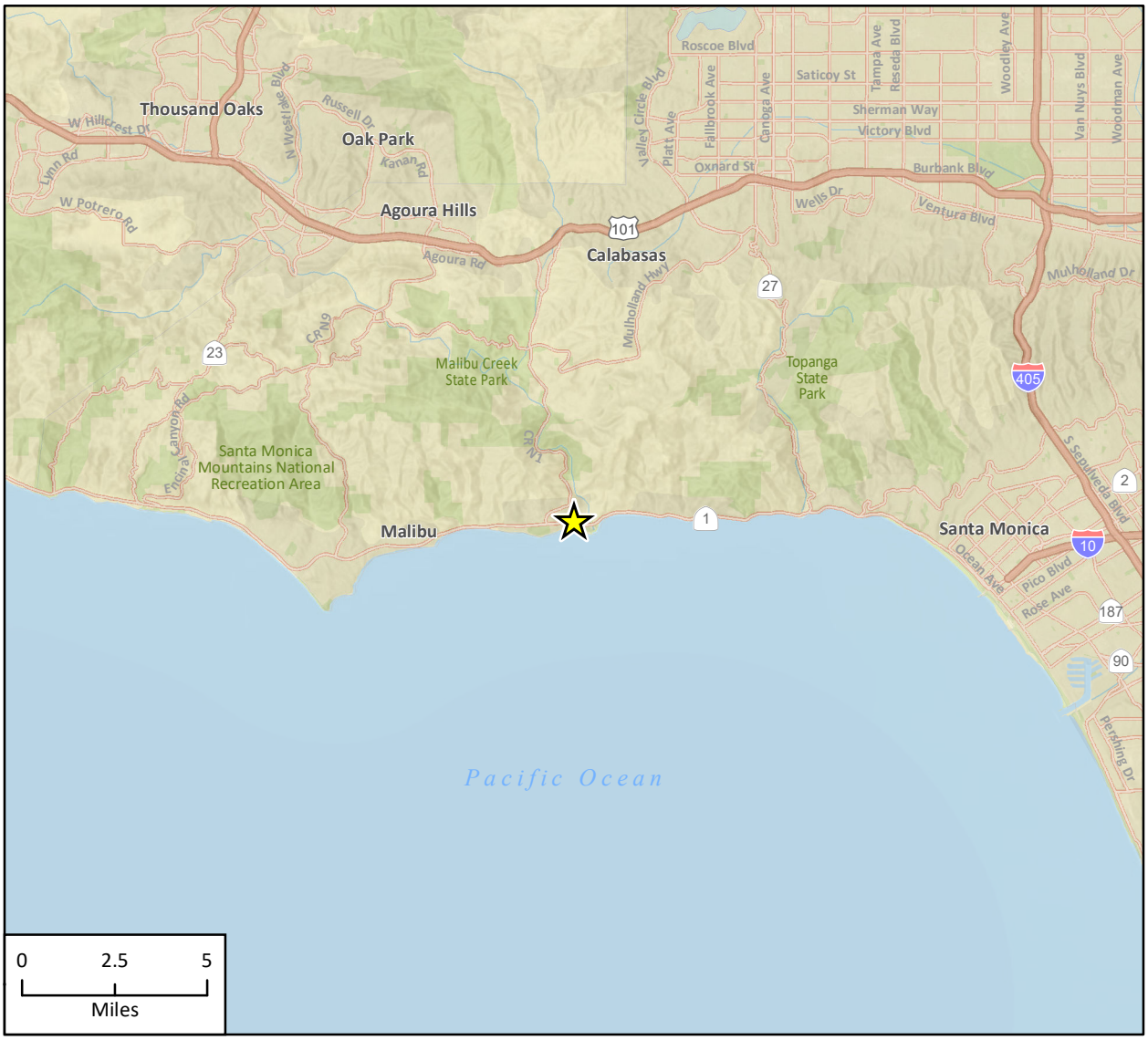
Table 4
Groundwater Analytical Results

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
SMBRP-9	45	11/2/2022	= **73**	< 1.0	= **7.7**	< 0.10	= **0.30**	= **0.12**	= **0.42**	= **8.1**	= **0.36**	= **0.60**	= **170**	= **1,300**	= **140**
SMBRP-12	25	11/3/2022	= **5.2**	< 1.0	< 1.0	< 1.0	-	= **8.2**	= **7.9**	= **7.9**	= **0.86**	= **1.1**	= **970**	= **7,000**	= **3,300**
MCWP-MW04S	20	11/2/2022	> **2,400 H**	= **18 H**	= **0.58**	< 0.10	= **0.44**	= **0.18**	= **0.62**	= **1.2**	= **0.49**	= **2.0**	= **2,800**	= **5,000**	= **480**
MCWP-MW04D	145	11/3/2022	< 1.0 H	< 1.0 H	= **1.2**	< 0.10	-	< 0.10	< 0.40	= **1.2**	= **0.052**	= **0.86**	= **640**	= **1,500**	= **250**
MCWP-MW07S	20	11/2/2022	= **5.2**	= **1.0**	= **4.5**	< 0.10	= **0.35**	= **0.30**	= **0.65**	= **5.2**	= **0.54**	= **0.37**	= **240**	= **1,400**	= **210**
MCWP-MW07D	134	11/2/2022	= **12**	< 1.0	< 1.0 H	< 0.10	= **0.10**	= **0.35**	= **0.45**	= **0.45**	= **0.15**	= **0.37**	= **250**	= **1,200**	= **230**
MCWP-MW09	89	11/3/2022	< 1.0	< 1.0	< 1.0	< 1.0	-	= **1.9**	= **1.9**	= **1.9**	= **0.16**	= **0.86**	= **700**	= **2,300**	= **710**

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
H: Holding time was exceeded
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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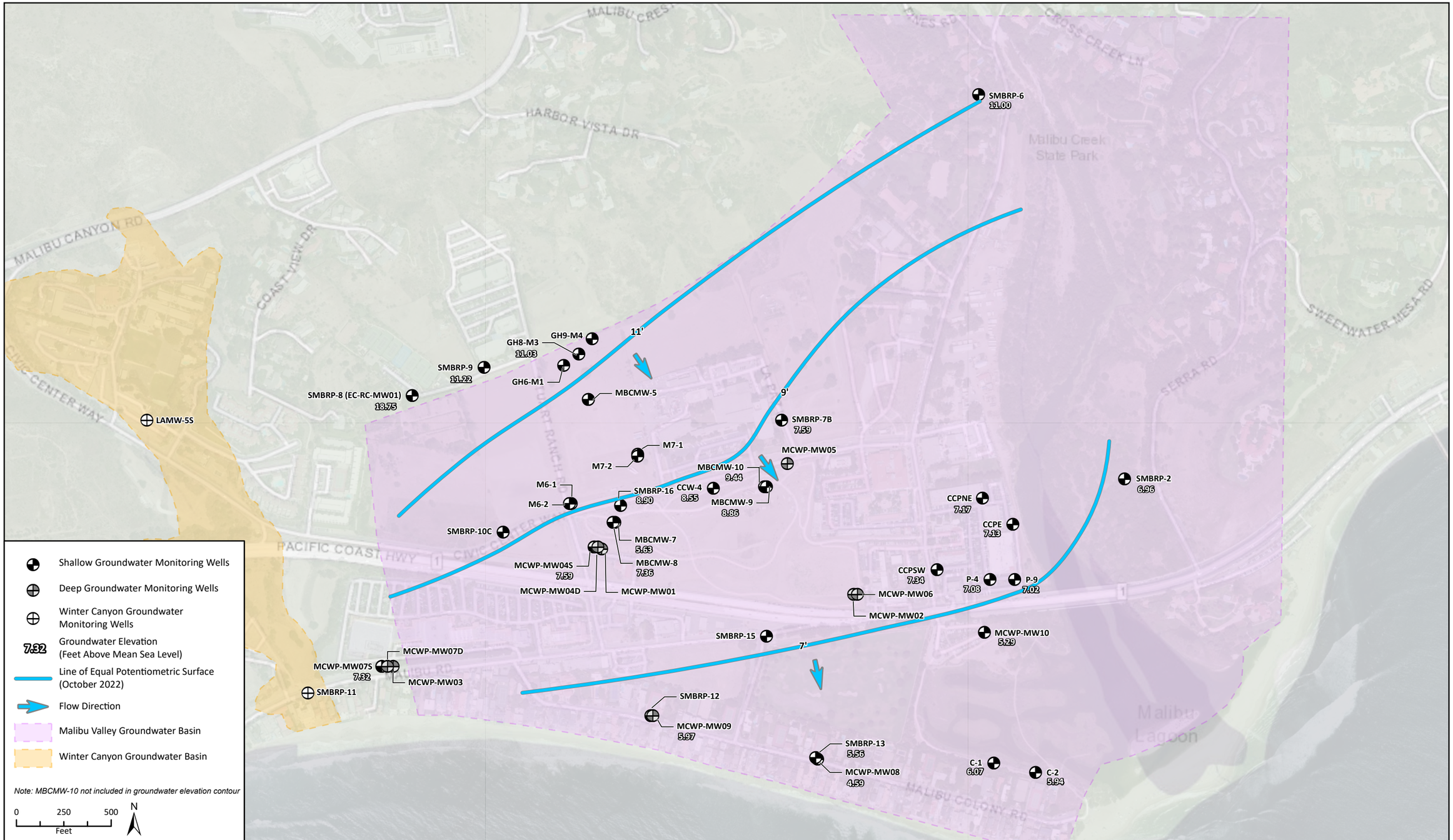
Site Map - Monitoring Network

Figure 2

Rincon Consultants Inc.



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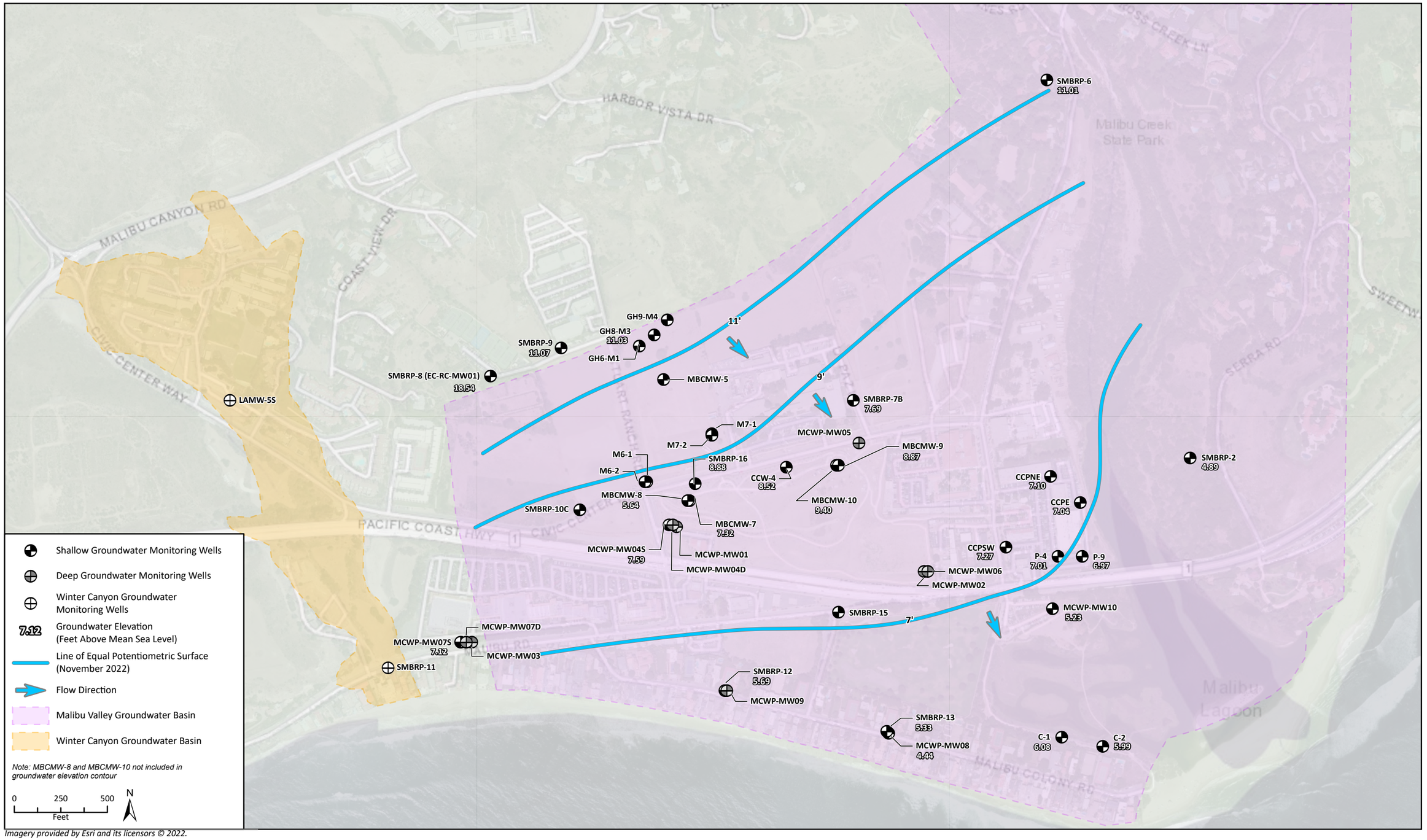
Shallow Groundwater Elevation - October 2022

Figure 3

Rincon Consultants Inc.



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Shallow Groundwater Elevation - November 2022

Figure 4

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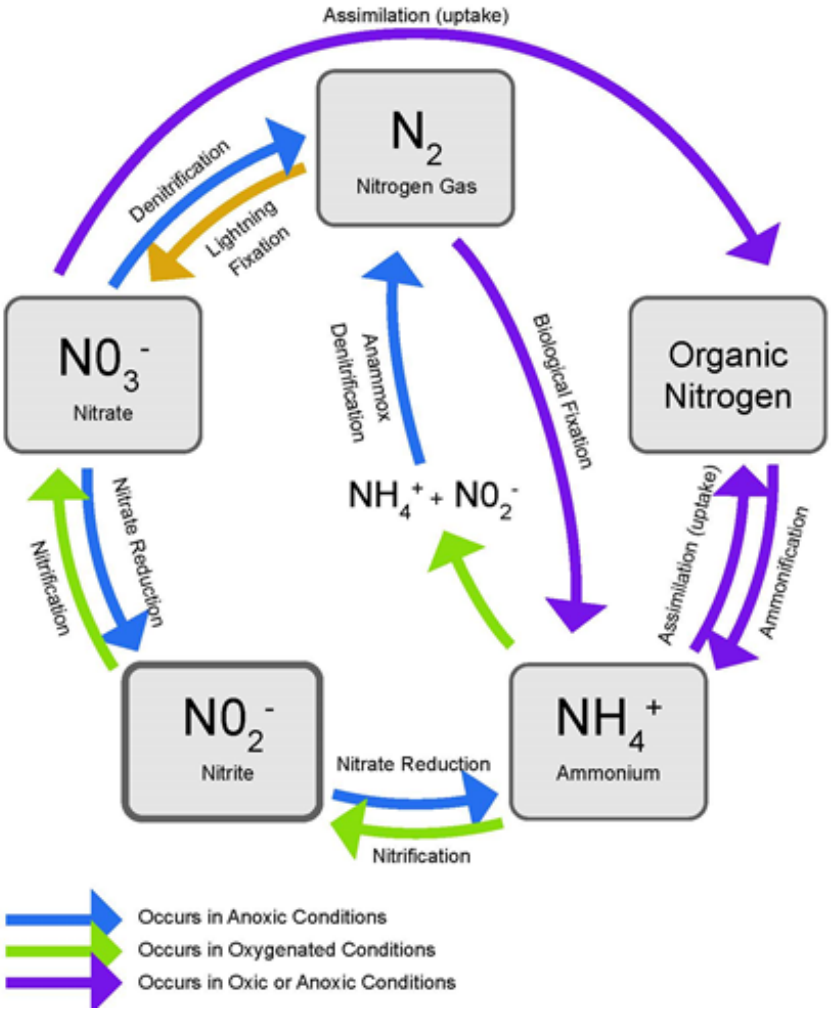
Shallow Groundwater Elevation - December 2022

Figure 5



The Nitrogen Cycle Figure 6

Appendix A

Groundwater and Surface Water Field Sheets

Well Gauging

Project No.: 20-09665

Date: 10/17/22

Rincon Personnel: LANDON LUJAN

Project Name: Malibu Civic Center GWM October

Begin Time: 0900

End Time: 1315

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	1200	5.40	5.78	14.50		
C-2	4	1210	5.25	5.27	14.20		
CCPE	2	0905	5.81	50.81	52.70		
CCPNE	2	0900	6.51	24.07	24.10		
CCPSW	2	0910	6.33	20.05	19.90		
CCW-4	1	0945	7.22	11.75	12.30		
GH6-M1	2	1027	29.99	34.70	35.20		
GH8-M3	2	1030	29.18	39.26	40.21		
~~GH9-M4~~	—	—	—	—	~~44.29~~	—	—
M6-1	2	1018	6.83	45.07	45.30		
M6-2	2	1020	6.46	19.69	19.40		
M7-1	2	1010	8.88	39.02	39.35		
M7-2	2	1015	8.78	19.70	19.60		
MBCMW-5	2	1025	DRY	18.22	19.40		
~~MBCMW-6~~	—	—	—	—	~~64.26~~	—	—
MBCMW-7	2	0955	11.01	51.86	52.15		
MBCMW-8	2	1000	9.17	11.93	11.95		
MBCMW-9	2	0935	8.85	9.34	9.25		
MBCMW-10	2	0940	8.30	51.25	51.75		
MCWP-MW01	6	1105	9.83	145.00	152.88		
MCWP-MW02	4	1240	10.61	22.05	148.20		
MCWP-MW03	6	1115	7.36	132.60	136.65		
MCWP-MW04S	4	1055	7.70	20.45	20.45		

References:

ft bTOC – Feet below top of casing

Well Gauging

Project No.: 20-09665

Date: 10/17/22

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	1100	9.00	145.22	149.20		
MCWP-MW05	4	0928	7.38	150.38	154.40		
MCWP-MW06	2	1242	9.58	136.29	138.15		
MCWP-MW07S	2	1120	6.40	17.15	17.22		
MCWP-MW07D	2	1125	7.26	127.55	129.60		
MCWP-MW08	2	1147	7.62	79.20	79.38		
MCWP-MW09	2	~~0935~~ 1136	5.56	89.65	89.60		
MCWP-MW10	2	~~0950~~ 1155	5.82	22.15	22.23		
P-4	4	0915	5.08	10.53	14.57		
P-9	4	0920	5.15	13.30	13.90		
SMBRP-2	4	1230	6.17	24.80	24.88		
SMBRP-6	2	1310	15.88	23.35	23.45		
SMBRP-7B	2	0932	11.40	25.02	25.13		
SMBRP-8 (EC1-RC-MW01)	4	1045	29.94	40.30	40.46		
SMBRP-9	2	1035	39.10	44.94	45.40		
~~SMBRP-10C~~	—	—	—	—	~~25.00~~	—	—
SMBRP-12	2	1130	6.65	24.40	24.88		
SMBRP-13	2	1145	8.02	19.35	19.48		
SMBRP-15B	1	1150	DRY	8.29	8.40		
SMBRP-16	2	0950	5.60	25.00	25.00		
LAMW-5S	4	1050	59.53	73.35	73.43		
SMBRP-11	2	1127	9.02	20.06	20.38		
~~Lagoon~~	—	—	—	—	~~N/A~~	—	—

References:
ft bTOC – Feet below top of casing

Well Gauging

Project No.: 20-09665

Date: 11/1/22

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	1047	9.16	145.19	149.20	OK	Bolts stripped
MCWP-MW05	4	1311	7.38	155.60	154.40		missing bolt, stripped
MCWP-MW06	2	1036	8.61	136.17	138.15		no bolts
MCWP-MW07S	2	1334	6.60	17.14	17.22	OK	no bolts, broken tabs
MCWP-MW07D	2	1337	7.30	127.59	129.60	OK	no bolts, broken tabs
MCWP-MW08	2	1410	7.77	79.23	79.38		no/broken tabs
MCWP-MW09	2	1400	5.85	88.90	89.60	OK	1 bolt, no tabs
MCWP-MW10	2	0948	5.88	22.19	22.23	bad	no tabs, missing bolt
P-4	4	0936	5.15	10.21	14.57	Bad	Cracked well box
P-9	4	0941	5.20	13.25	13.90		no bolts, stripped threads
SMBRP-2	4	1022	8.24	24.84	24.88		1 bolt, no gasket
SMBRP-6	2	1244	15.87	23.40	23.45	Good	
SMBRP-7B	2	1254	11.30	25.06	25.13		
SMBRP-8 (EC1-RC-MW01)	4	1112	30.15	40.28	40.46	Good	gauged 11/2/22
SMBRP-9	2	0815	39.25	44.94	45.40		Unable to gauge due to parked car
~~SMBRP-10C~~	—	—	—	—	~~25.00~~	—	—
SMBRP-12	2	1356	6.93	24.42	24.88		
SMBRP-13	2	1406	8.25	19.34	19.48	Good	
SMBRP-15B	1	1416	DRY	8.35	8.40	Bad	missing lid
SMBRP-16	2	1319	5.62	25.27	25.00		missing bolts
LAMW-5S	4	1059	60.07	74.02	73.43		bolts stripped
SMBRP-11	2	1347	9.25	20.02	20.38	ok	1 bolt
~~Lagoon~~	—	—	—	—	~~N/A~~	—	—

References:

ft bTOC – Feet below top of casing

Well Gauging

Project No.: 20-09665
Date: 11/1/22

Rincon Personnel: LANDON L. / MIKE G.
Project Name: MALIBU OU GWM

Begin Time: 0910
End Time: 1420

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	0958	5.39	5.75	14.50	Bad	no bolts, stripped threads
C-2	4	1004	5.20	13.50 *	14.20	Bad	no bolts, stripped
CCPE	2	0923	5.90	58.70*	52.70	Good	
CCPNE	2	0918	6.58	24.10	24.10		No bolts
CCPSW	2	0931	6.40	21.02	19.90	Bad	No bolts, stripped threads
CCW-4	1	1306	7.25	11.98	12.30		stripped
GH6-M1	2	1142	30.09	34.67	35.20	ok	no bolts
GH8-M3	2	1144	29.18	39.29	40.21	ok	cracked bolts
~~GH9-M4~~	—	—	—		~~44.29~~	—	—
M6-1	2	1129	6.84	45.11	45.30	ok	no lid gasket
M6-2	2	1131	6.49	19.68	19.40	ok	
M7-1	2	1121	8.91	39.05	39.35	good	
M7-2	2	1123	8.88	19.45	19.60	good	
MBCMW-5	2	1138	DRY	18.20	19.40	ok	no bolts
~~MBCMW-6~~	—	—	—		~~64.26~~	—	—
MBCMW-7	2	1322	11.00	51.90	52.15	Bad	no bolts, lid doesn't c
MBCMW-8	2	1326	9.21	11.95	11.95	Bad	no bolts, lid doesn't c
MBCMW-9	2	1258	8.84	9.32	9.25	Bad	missing bolts, stripped
MBCMW-10	2	1300	8.34	51.25	51.75		
MCWP-MW01	6	1049	9.98	144.88	152.88		
MCWP-MW02	4	1032	10.67	22.07	148.20		no bolts, stripped
MCWP-MW03	6	1340	7.40	132.55	136.65		
MCWP-MW04S	4	1053	7.70	20.41	20.45		

References:
ft bTOC – Feet below top of casing

rincon

Well Gauging

Project No.: 20-09665
Date: 12/12/22

Rincon Personnel: LANDON LUJAN
Project Name: MALIBU CIVIC CENTER GAGING

Begin Time: 0800
End Time: 1135

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	1010	5.40	—	14.50	COMPLETELY SUBMERGED IN PUDDLE UNABLE TO GAUGE	
C-2	4	1015	6.35	13.40	14.20		
CCPE	2	0815	8.20	52.32	52.70		
CCPNE	2	0817	8.70	24.08	24.10		
CCPSW	2	0805	8.40	20.04	19.90		NO BOLTS
CCW-4	1	1055	6.61	11.83	12.30		
GH6-M1	2	0843	30.23	34.68	35.20		NO BOLTS
GH8-M3	2	0845	29.41	39.28	40.21		
~~GH9-M4~~	—	—	—	—	~~44.29~~	—	—
M6-1	2	0850	6.90	45.10	45.30		
M6-2	2	0855	5.45	19.69	19.40		
M7-1	2	0835	8.04	39.03	39.35		
M7-2	2	0837	7.10	19.33	19.60		
MBCMW-5	2	0840	DRY	18.20	19.40		
~~MBCMW-6~~	—	—	—	—	~~64.26~~	—	—
MBCMW-7	2	0908	11.10	51.87	52.15		
MBCMW-8	2	0907	8.45	11.95	11.95		
MBCMW-9	2	1100	7.65	9.32	9.25		
MBCMW-10	2	1105	8.35	51.26	51.75		
MCWP-MW01	6	1047	9.80	144.93	152.88		
MCWP-MW02	4	1645	12.20	22.07	148.20		
MCWP-MW03	6	0935	6.99	132.57	136.65		
MCWP-MW04S	4	0949	7.02	20.43	20.45		

References:
ft bTOC – Feet below top of casing

rincon

Well Gauging

Project No.: 20-09665

Date: 12/12/22

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	1049	8.92	145.20	149.20		
MCWP-MW05	4	1107	7.84	151.46	154.40		
MCWP-MW06	2	1040	9.65	136.20	138.15		
MCWP-MW07S	2	0930	6.50	17.15	17.22		
MCWP-MW07D	2	0932	6.87	127.56	129.60		
MCWP-MW08	2	0953	8.95	79.22	79.38		
MCWP-MW09	2	0947	5.75	89.01	89.60		
MCWP-MW10	2	1005	8.08	22.18	22.23		
P-4	4	0808	7.50	10.35	14.57		
P-9	4	0810	5.15	13.20	13.90	Well box full w/ water	should not open until dry
SMBRP-2	4	1030	8.79	24.83	24.88		
SMBRP-6	2	1120	13.90	23.37	23.45		
SMBRP-7B	2	1110	11.03	25.05	25.13		
SMBRP-8 (EC1-RC-MW01)	4	0918	29.85	40.28	40.46		
SMBRP-9	2	0915	29.10	44.91	45.40	Car PARKED ON WELL	
~~SMBRP-10C~~	—	—	—	—	~~25.00~~	—	—
SMBRP-12	2	0945	7.05	24.42	24.88		
SMBRP-13	2	0950	8.75	19.34	19.48		
SMBRP-15B	1	1000	DRY	8.30	8.40		
SMBRP-16	2	0900	3.95	25.16	25.00		
LAMW-5S	4	0910	60.63	73.45	73.43		
SMBRP-11	2	0937	9.13	20.04	20.38		
~~Lagoon~~	—	—	—	—	~~N/A~~	—	—

References:

ft bTOC – Feet below top of casing

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 11/2/22

Rincon Personnel: Landon L.
Project Name: Malibu Civic Ctr Q4 GWM

Well ID: MCWP-MW07S
Weather: Overcast

Well and Purging Information

Total Well Depth (ft btoc):	17.14	Well Diameter (in):	2
Static Depth to Water (ft btoc):	6.44	Screened Interval (ft btoc):	—
Length of Water Column (ft):	10.7	Pump Inlet Depth (ft btoc):	16.5
One Casing Volume (gal):	1.72	3 Casing Volumes (gal):	5.14

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
0930	= Purge Start Time							
0936	0.38	2.0	14.76	22.0	693	2054	7.58	—
0939	↓	~~4.0~~	Dewatered @		3.5 gallons @ 16.25 DTW			
	—	6.0	—					
Parameters at Sampling:	8.25	22.5	19	2007	7.53			
Stabilization Criteria:	--	--	10% or <10 NTU	5%	± 0.1			

Target Well Recovery DTW: 8.40 = Static DTW 6.44 + (0.2 x Max. Drawdown 9.81)

Sample and Misc. Information

Sample ID: MCWP-MW07S	Sample Date/Time: 11/2/22 /1010	Purge Start Time: 0930
Pump Type: E.S.	Field Meter Type: Hanna	Meter Calibration Date: 10/2/22
Sampling Method: Del. Tubing	Did Well Dewater: (Yes) No	Duplicate Collected: Yes (No)
Duplicate ID: — @	Equipment Blank ID: — @	Number of Bottles: 11

Additional Notes:

16.25

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 11/2/22

Rincon Personnel: Mike Gino / Landon Lujan **Well ID:** SMBRP-9
Project Name: Malibu Civic Center Q4 GWM **Weather:** Sunny

Well and Purging Information

Total Well Depth (ft btoc):	44.94	Well Diameter (in):	2
Static Depth to Water (ft btoc):	39.26	Screened Interval (ft btoc):	
Length of Water Column (ft):	5.68	Pump Inlet Depth (ft btoc):	44.0
One Casing Volume (gal):	0.91	3 Casing Volumes (gal):	2.73

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
1128	= Purge Start Time							
1129	0.5	1	41.68	23.1	82	2076	7.35	
1131	1	2	42.34	23.0	34	2049	7.33	
1134	1	3	43.33	23.0	43	2105	7.32	
1136	—	Dewatered @	3.5 gallons			@ 44.0	DTW	—
Parameters at Sampling:	40.05		23.2		37	2208	7.31	
Stabilization Criteria:	--		--		10% or <10 NTU	5%	± 0.1	
Target Well Recovery DTW:	40.21	= Static DTW 39.26 + (0.2 x Max. Drawdown 4.74)						

Sample and Misc. Information

Sample ID: SMBRP-9	Sample Date/Time: 11/2/22 / 1210	Purge Start Time: 1128
Pump Type: ES	Field Meter Type: Hanna	Meter Calibration Date: 11/2/22
Sampling Method: dedicated tubing	Did Well Dewater: (Yes) No	Duplicate Collected: Yes (No)
Duplicate ID: — @ —	Equipment Blank ID: — @ —	Number of Bottles: 11

Additional Notes:

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 11/3/22

Rincon Personnel: LANDON L. / MIKE G. **Well ID:** MCWP-MW09
Project Name: MALIBU CIVIL CENTER Q4 GWM **Weather:** SUNNY

Well and Purging Information

Total Well Depth (ft btoc):	88.90	Well Diameter (in):	2
Static Depth to Water (ft btoc):	5.79	Screened Interval (ft btoc):	—
Length of Water Column (ft):	83.11	Pump Inlet Depth (ft btoc):	35.0
One Casing Volume (gal):	13.30	3 Casing Volumes (gal):	39.90

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
1107	= Purge Start Time							
1117	1.35	13.5	6.48	21.8	4	3.57	7.44	
1127	|	27.0	6.49	21.0	3	3.66	7.34	
1137	|	40.5	6.51	21.0	3	3.78	7.31	
1147	|	54.0	6.55	20.9	5	3.88	7.31	
Parameters at Sampling:		5.94		21.6	4	3.85	7.32	
Stabilization Criteria:		--		--	10% or <10 NTU	5%	± 0.1	

Target Well Recovery DTW: 5.94 = Static DTW 5.79 + (0.2 x Max. Drawdown 0.76)

Sample and Misc. Information

Sample ID: MCWP-MW09	Sample Date/Time: 11/3/22 / 1200	Purge Start Time: 1107
Pump Type: ES.	Field Meter Type: HANNA	Meter Calibration Date: 11/3/22
Sampling Method: Del. Tubing	Did Well Dewater: Yes (No)	Duplicate Collected: Yes (No)
Duplicate ID: —@—	Equipment Blank ID: —@—	Number of Bottles: 11

Additional Notes:

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 11/3/22

Rincon Personnel: Mike Girod / Landon Lujan **Well ID:** SMBRP-12
Project Name: Malibu Civic Center Q4 Gwm **Weather:** Sunny

Well and Purging Information

Total Well Depth (ft btoc):	24.42	Well Diameter (in):	2
Static Depth to Water (ft btoc):	7.05	Screened Interval (ft btoc):	—
Length of Water Column (ft):	17.37	Pump Inlet Depth (ft btoc):	23
One Casing Volume (gal):	2.78	3 Casing Volumes (gal):	8.34

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
1025	= Purge Start Time							
1029	0.9	3	7.60	23.1	9	10.45	6.93	
1032	1	6	7.77	24.2	5	10.81	6.87	
1035	1	9	7.78	24.3	3	10.85	6.85	
Parameters at Sampling:		7.10	24.3	4	10.92	6.99		
Stabilization Criteria:		--	--	10% or <10 NTU	5%	± 0.1		
Target Well Recovery DTW:		7.20	= Static DTW 7.05		+ (0.2 x Max. Drawdown 0.73)			

Sample and Misc. Information

Sample ID: SMBRP-12	Sample Date/Time: 11/3/22 / 1045	Purge Start Time: 1025
Pump Type: ES	Field Meter Type: Hanna	Meter Calibration Date: 11/3/22
Sampling Method: Dedicated tubing	Did Well Dewater: Yes (No)	Duplicate Collected: Yes (No)
Duplicate ID: — @ —	Equipment Blank ID: — @ —	Number of Bottles: 11

Additional Notes:

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 11/2/22

Rincon Personnel: Landon L. / Mike G. **Well ID:** MCWP-MW045
Project Name: Malibu Civic Ctr Q4 GWM **Weather:** Overcast

Well and Purging Information

Total Well Depth (ft btoc):	20.41	Well Diameter (in):	4
Static Depth to Water (ft btoc):	7.71	Screened Interval (ft btoc):	—
Length of Water Column (ft):	12.70	Pump Inlet Depth (ft btoc):	19.0
One Casing Volume (gal):	8.26	3 Casing Volumes (gal):	24.77

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 ~~uS/cm~~)	pH	Notes
0839	= Purge Start Time							
0850	0.77	8.5	18.55	21.5	52	7.18	7.39	
0855		~~17.0~~	Dewatered @ 9.5 gallons @ 19.0 DTW					—
		~~25.5~~	ec 11/2/22					
Parameters at Sampling:	12.67	19.1	32	5.74	7.38			
Stabilization Criteria:	--	--	10% or <10 NTU	5%	± 0.1			

Target Well Recovery DTW: 9.96 = Static DTW 7.71 + (0.2 x Max. Drawdown 11.29)

Sample and Misc. Information

Sample ID: MCWP-MW045	Sample Date/Time: 11/3/22 / 0745	Purge Start Time: 0839
Pump Type: E.S.	Field Meter Type: Hanna	Meter Calibration Date: 11/2/22
Sampling Method: Bail	Did Well Dewater: (Yes) No	Duplicate Collected: Yes (No)
Duplicate ID: — @	Equipment Blank ID: — @	Number of Bottles: 11

Additional Notes: Sampled next day >2 hrs

17.55

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 11/2/22

Rincon Personnel: LANDON LUJAN
Well ID: MCWP-MW07d
Project Name: MALIBU CIVIC CENTER Q4 GWM
Weather: Overcast

Well and Purging Information

Total Well Depth (ft btoc):	127.59	Well Diameter (in):	2
Static Depth to Water (ft btoc):	7.54	Screened Interval (ft btoc):	—
Length of Water Column (ft):	120.05	Pump Inlet Depth (ft btoc):	25
One Casing Volume (gal):	19.21	3 Casing Volumes (gal):	57.63

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
0921	= Purge Start Time							
0939	1.06	19.5	7.58	21.1	2	1.72	7.60	
1000	|	39.0	7.58	21.6	2	1.72	7.58	
1016	|	58.5	7.59	21.4	3	1.70	7.58	
Parameters at Sampling:		7.54	21.7	3	1.69	7.56		
Stabilization Criteria:		--	--	10% or <10 NTU	5%	± 0.1		

Target Well Recovery DTW: 7.55 = Static DTW 7.54 + (0.2 x Max. Drawdown 0.05)

Sample and Misc. Information

Sample ID: MCWP - MW07d	Sample Date/Time: 11/2/22 1025	Purge Start Time: 0921
Pump Type: ES	Field Meter Type: HANNA	Meter Calibration Date: 11/2/22
Sampling Method: Ded. Tubing	Did Well Dewater: Yes (No)	Duplicate Collected: Yes (No)
Duplicate ID: — @	Equipment Blank ID: — @ —	Number of Bottles: 11

Additional Notes:

Standard Purge Groundwater Sampling

Project No.: 20-09665
Date: 11/3/22

Rincon Personnel: LANDON L. / MIKE G.
Project Name: Malibu Civic Center G3 SemiAnnual
Weather Conditions: CLEAR
Well ID: MCWP-MW04D
Begin/End Time: 0800 / 0955
Start Purge: 0814

Well and Purging Information

Total Well Depth (ft btoc):	145.19	Well Diameter (in):	4
Static Depth to Water (ft btoc):	8.85	Screened Interval (ft btoc):	—
Length of Water Column (ft):	136.34	Pump Inlet Depth (ft btoc):	15.0
One Casing Volume (gal):	88.70	3 Casing Volumes (gal):	265.90
DTW Indicator:	Solinst M 102	Type of Pump:	ES

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
0814	—	START	—					
0850	3.03	89.0	9.02	17.7	3	2.25	7.18	
0914	1	178.0	9.09	18.8	3	2.28	7.16	
0942	1	267.0	9.17	18.8	2	2.22	7.17	
Parameters at Sampling:		8.90		18.8	2	2.21	7.20	
Target Well Recovery DTW:		8.91	= Static DTW 8.85		+ (0.2 x Max. Drawdown 0.32)			

Sample and Misc. Information

Sample Date: 11/3/22	Sample ID: MCWP-MW04D	Sampling Time: 0950
Did Well Dewater: Yes (No)	Field Meter Type: HANNA	Sampling Method: Ded. Tubing
Duplicate Collected: Yes (No)	Meter/Calibration Date:	Laboratory: ENTHALPY
Duplicate ID: — @	Equipment Blank ID: — @	Number of Bottles: 11

Additional Notes:

Surface Water Sampling

Job No: 20-09665	**Event:** Fourth Quarter
Project: Malibu CCWTF	**Date:** November 3, 2022
Location: Malibu, CA	**Sampled By:** Lindsey Stockton

CONDITIONS

Weather: Clear	**Wind:** Calm
Estuary Berm: Closed	

DAILY TIDES

LOW	Time: 00:21	Feet: -0.1	**HIGH**	Time: 07:04	Feet: 4.9

VISUAL OBSERVATIONS

Location	Time	Sea State	Water Clarity	Water Color	Odors	Floatables	Birds/Wildlife
							Type, # On Land # In Water
N-001	10:10	Calm	Clear	Clear	None	None	NA, ,
N-002	10:30	Calm	Clear	Clear	None	None	NA, ,
N-003	09:45	Calm	Clear	Clear	None	None	Gulls, 50, 25
N-004	10:50	Rough	Clear	Clear	None	None	NA, ,
L-001	11:40	Calm	Clear	Brown	None	None	NA, ,
L-002	11:10	Calm	Clear	Brown	None	Garbage	NA, ,
L-003	11:20	Calm	Clear	Brown	None	Garbage	NA, ,
L-004	09:20	Calm	Clear	Clear	None	None	NA, ,
L-005	09:50	Calm	Clear	Clear	None	None	Commerant , 10, 24 Gull, 5, 15 Pelican, 2, 15
L-006	09:30	Calm	Clear	Brown	None	None	Commerant , , 3 Egret, 0, 2

Appendix B

Analytical Laboratory Reports

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number: 472123
Report Level: II
Report Date: 11/22/2022

Analytical Report *prepared for:*

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Project: MALIBU - Malibu - Quarterly

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

Case Narrative

Rincon Consultants - Ventura 2060 Knoll Drive Unit B Ventura, CA 93001 Kiernan Brtalik	Lab Job Number: 472123 Project No: MALIBU Location: Malibu - Quarterly Date Received: 11/02/22

This data package contains sample and QC results for three water samples, requested for the above referenced project on 11/02/22. The samples were received cold and intact.

Metals (EPA 200.7):
No analytical problems were encountered.

Ion Chromatography (EPA 300.0):

- Low recoveries were observed for nitrogen, nitrite in the MS/MSD for batch 300254; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. High recoveries were observed for nitrogen, nitrate; the LCS was within limits, and the associated RPD was within limits.
- Low recoveries were observed for nitrogen, nitrite in the MS/MSD for batch 300254; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits.
- Chloride was detected between the MDL and the RL in the method blank for batch 300456; this analyte was detected in the sample at a level at least 10 times that of the blank.
- Chloride was detected between the MDL and the RL in the method blank for batch 300574; this analyte was detected in samples at a level at least 10 times that of the blank.
- Nitrogen, nitrate was analyzed outside of hold time; affected data was qualified with "H".
- 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):

- Low recoveries were observed for phosphorus in the MS/MSD of SMBRP-9 (lab # 472123-001); the LCS was within limits.
- No other analytical problems were encountered.

Total Oil & Grease (HEM) (EPA 1664A):

- Matrix spikes were not performed for this analysis due to insufficient sample volume.
- 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.

ENTHALPY ANALYTICAL

Sample Summary

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #:	472123
Project No:	MALIBU
Location:	Malibu - Quarterly
Date Received:	11/02/22

Sample ID	Lab ID	Collected	Matrix
SMBRP-9	472123-001	11/02/22 12:10	Water
MCWP-MW07S	472123-002	11/02/22 10:10	Water
MCWP-MW07D	472123-003	11/02/22 10:25	Water

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.

Biochemical Oxygen Demand (SM5210B):
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.

Surfactants (MBAS) (SM5540C):

- MBAS are calculated and reported as Linear Anionic Surfactants with a molecular weight of 348 g/mol.
- 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:	472123			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
Report To:	Kiernan Brtalik	Number:	20-09665
Email:		P.O. #:	
Address:	180 N. Ashwood Ave.	Address:	
	Ventura, CA 93003		
Phone:		Global ID:	
Cell:		Sampled By:	LANDON LUJAN

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			Test Instructions / Comments
SMBRP-9	11/2/22	1210				X	X	X	X	X	X	X	X			5.4/2.5 5.8/2.4
~~SMBRP-12~~						X	X	X	X	X	X	X	X			
~~MCWP-MW04S~~						X	X	X	X	X	X	X	X			
~~MCWP-MW04D~~						X	X	X	X	X	X	X	X			
MCWP-MW07S	11/2/22	1010				X	X	X	X	X	X	X	X			
MCWP-MW07D	11/2/22	1025				X	X	X	X	X	X	X	X			
~~MCWP-MW09~~						X	X	X	X	X	X	X	X			

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		LANDON LUJAN	RINCON CONSULTANTS	11/2/22 1408
[1] Received By:		GGawat	EA	11.02.22 1408
[2] Relinquished By:		GGawat	EA	11.02.22 1610
[2] Received By:		NICK	EA	11-2-22 1610
[3] Relinquished By:				
[3] Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants Project: Malibu - Quarterly

Date Received: 11/02/22 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: 5.6 #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: 2.5 #2: 2.4 #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: 11-2-22

ENTHALPY ANALYTICAL

Analysis Results for 472123

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #: 472123
Project No: MALIBU
Location: Malibu - Quarterly
Date Received: 11/02/22

Sample ID: SMBRP-9 **Lab ID: 472123-001** **Collected: 11/02/22 12:10**
Matrix: Water

472123-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 1664A Prep Method: METHOD										
Total Oil and Grease	**3.1**	J	mg/L	5.6	1.6	1.1	301072	11/08/22	11/08/22	ATP
Method: EPA 200.7 Prep Method: EPA 200.7										
Boron	**0.60**		mg/L	0.050	0.010	1	300364	11/04/22	11/05/22	SBW
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**140**		mg/L	10	5.0	10	300574	11/07/22 13:21	11/07/22 17:22	RKV
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	1	300254	11/02/22 18:48	11/03/22 07:26	RKV
Nitrogen, Nitrate	**7.7**		mg/L	0.10	0.03	1	300254	11/02/22 18:48	11/03/22 07:26	RKV
Sulfate	**170**		mg/L	10	2.5	10	300574	11/07/22 13:21	11/07/22 17:22	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	**0.42**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.30**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 2150B										
Odor	ND		TON	1.0		1	300263	11/02/22 19:12	11/02/22 19:12	LVL
Method: SM 4500-CL-G										
Chlorine, Total Residual	ND	H	mg/L	0.10	0.026	1	300431	11/04/22 18:07	11/04/22 18:07	DNA
Method: SM 4500-H+ B										
pH	**7.26**	H	SU			1	300339	11/03/22 16:26	11/03/22 16:26	LVL
Temperature	**21.20**	H	deg C	1.00		1	300339	11/03/22 16:26	11/03/22 16:26	LVL
Method: SM 4500-NH3-G										
Ammonia-N	**0.12**		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.36**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472123

472123-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 5310B										
Total Organic Carbon	**7.2**		mg/L	1.0	0.23	1	300582	11/04/22	11/04/22	PWM
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	300247	11/02/22 17:15	11/03/22 13:45	JAA
Coliform, Total	**73**		MPN/100ml	1.0		1	300247	11/02/22 17:15	11/03/22 13:45	JAA
Method: SM2120B										
Color	**15**		ColorUnits	5		1	300262	11/02/22 19:12	11/02/22 19:12	LVL
Method: SM2130B										
Turbidity	**16**		NTU	0.10	0.02	1	300261	11/02/22 19:12	11/02/22 19:12	LVL
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**1,300**		mg/L	20		2	300403	11/04/22	11/05/22	ATP
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	**17**		mg/L	0.6		1.1	300534	11/04/22	11/04/22	ATP
Method: SM5210B Prep Method: METHOD										
Biochemical Oxygen Demand	ND		mg/L	3.0		1	300242	11/02/22 17:54	11/07/22 12:11	DNA
Method: SM5540C										
Surfactants (MBAS)	**0.031**	J	mg/L	0.040	0.029	1	300414	11/04/22 09:30	11/04/22 18:50	ATP
Method: TOTAL NITROGEN										
Total Nitrogen	**8.1**		mg/L			1	301516	11/18/22	11/18/22	DCD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472123

Sample ID: MCWP-MW07S	Lab ID: 472123-002	Collected: 11/02/22 10:10
	Matrix: Water	

472123-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 1664A Prep Method: METHOD										
Total Oil and Grease	**4.4**	J	mg/L	5.6	1.6	1.1	301072	11/08/22	11/08/22	ATP
Method: EPA 200.7 Prep Method: EPA 200.7										
Boron	**0.37**		mg/L	0.050	0.010	1	300364	11/04/22	11/05/22	SBW
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**210**		mg/L	10	5.0	10	300574	11/07/22 13:21	11/07/22 17:40	RKV
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	1	300254	11/02/22 18:48	11/03/22 07:44	RKV
Nitrogen, Nitrate	**4.5**		mg/L	0.10	0.03	1	300254	11/02/22 18:48	11/03/22 07:44	RKV
Sulfate	**240**		mg/L	10	2.5	10	300574	11/07/22 13:21	11/07/22 17:40	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	**0.65**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.35**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 2150B										
Odor	ND		TON	1.0		1	300263	11/02/22 19:12	11/02/22 19:12	LVL
Method: SM 4500-CL-G										
Chlorine, Total Residual	ND	H	mg/L	0.10	0.026	1	300431	11/04/22 18:07	11/04/22 18:07	DNA
Method: SM 4500-H+ B										
pH	**7.69**	H	SU			1	300339	11/03/22 16:26	11/03/22 16:26	LVL
Temperature	**20.80**	H	deg C	1.00		1	300339	11/03/22 16:26	11/03/22 16:26	LVL
Method: SM 4500-NH3-G										
Ammonia-N	**0.30**		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.54**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 5310B										
Total Organic Carbon	**2.0**		mg/L	1.0	0.23	1	300582	11/04/22	11/04/22	PWM
Method: SM 9223Bb										
Fecal Coliform	**1.0**		MPN/100ml	1.0		1	300247	11/02/22 17:15	11/03/22 13:45	JAA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472123

472123-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Coliform, Total	**5.2**		MPN/100ml	1.0		1	300247	11/02/22 17:15	11/03/22 13:45	JAA
Method: SM2120B										
Color	**70**		ColorUnits	5		1	300262	11/02/22 19:12	11/02/22 19:12	LVL
Method: SM2130B										
Turbidity	**51**		NTU	0.20	0.04	2	300311	11/03/22 11:53	11/03/22 11:53	LVL
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**1,400**		mg/L	20		2	300403	11/04/22	11/05/22	ATP
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	**200**		mg/L	2.0		4	300534	11/04/22	11/04/22	ATP
Method: SM5210B Prep Method: METHOD										
Biochemical Oxygen Demand	ND		mg/L	3.0		1	300242	11/02/22 17:54	11/07/22 12:11	DNA
Method: SM5540C										
Surfactants (MBAS)	**0.13**		mg/L	0.040	0.029	1	300414	11/04/22 09:30	11/04/22 18:50	ATP
Method: TOTAL NITROGEN										
Total Nitrogen	**5.2**		mg/L			1	301516	11/18/22	11/18/22	DCD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472123

Sample ID: MCWP-MW07D	Lab ID: 472123-003	Collected: 11/02/22 10:25
	Matrix: Water	

472123-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 1664A Prep Method: METHOD										
Total Oil and Grease	**2.8**	J	mg/L	5.6	1.6	1.1	301072	11/08/22	11/08/22	ATP
Method: EPA 200.7 Prep Method: EPA 200.7										
Boron	**0.37**		mg/L	0.050	0.010	1	300364	11/04/22	11/05/22	SBW
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**230**		mg/L	10	5.0	10	300456	11/05/22 14:09	11/07/22 06:48	RKV
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	1	300254	11/02/22 18:48	11/03/22 08:02	RKV
Nitrogen, Nitrate	ND	H	mg/L	1.0	0.32	10	300456	11/05/22 14:09	11/07/22 06:48	RKV
Sulfate	**250**		mg/L	10	2.5	10	300456	11/05/22 14:09	11/07/22 06:48	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	**0.45**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.10**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 2150B										
Odor	ND		TON	1.0		1	300263	11/02/22 19:12	11/02/22 19:12	LVL
Method: SM 4500-CL-G										
Chlorine, Total Residual	ND	H	mg/L	0.10	0.026	1	300431	11/04/22 18:07	11/04/22 18:07	DNA
Method: SM 4500-H+ B										
pH	**7.59**	H	SU			1	300339	11/03/22 16:26	11/03/22 16:26	LVL
Temperature	**21.30**	H	deg C	1.00		1	300339	11/03/22 16:26	11/03/22 16:26	LVL
Method: SM 4500-NH3-G										
Ammonia-N	**0.35**		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.15**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 5310B										
Total Organic Carbon	**4.2**		mg/L	1.0	0.23	1	300582	11/04/22	11/04/22	PWM
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	300247	11/02/22 17:15	11/03/22 13:45	JAA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472123

472123-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Coliform, Total	**12**		MPN/100ml	1.0		1	300247	11/02/22 17:15	11/03/22 13:45	JAA
Method: SM2120B										
Color	**10**		ColorUnits	5		1	300262	11/02/22 19:12	11/02/22 19:12	LVL
Method: SM2130B										
Turbidity	**0.21**		NTU	0.10	0.02	1	300261	11/02/22 19:12	11/02/22 19:12	LVL
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**1,200**		mg/L	20		2	300403	11/04/22	11/05/22	ATP
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	ND		mg/L	0.6		1.1	300534	11/04/22	11/04/22	ATP
Method: SM5210B Prep Method: METHOD										
Biochemical Oxygen Demand	ND		mg/L	3.0		1	300242	11/02/22 17:54	11/07/22 12:11	DNA
Method: SM5540C										
Surfactants (MBAS)	**0.060**		mg/L	0.040	0.029	1	300414	11/04/22 09:30	11/04/22 18:50	ATP
Method: TOTAL NITROGEN										
Total Nitrogen	**0.45**		mg/L			1	301516	11/18/22	11/18/22	DCD

< 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: QC1025589**	**Batch: 301072**
Matrix: Water	**Method: EPA 1664A**	**Prep Method: METHOD**

QC1025589 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Oil and Grease	ND		mg/L	5.0	1.4	11/08/22	11/08/22

Type: Lab Control Sample	**Lab ID: QC1025590**	**Batch: 301072**
Matrix: Water	**Method: EPA 1664A**	**Prep Method: METHOD**

QC1025590 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Oil and Grease	39.20	40.00	mg/L	98%		78-114

Type: Lab Control Sample Duplicate	**Lab ID: QC1025591**	**Batch: 301072**
Matrix: Water	**Method: EPA 1664A**	**Prep Method: METHOD**

QC1025591 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
Total Oil and Grease	37.80	40.00	mg/L	95%		78-114	4	18

Type: Blank	**Lab ID: QC1023349**	**Batch: 300364**
Matrix: Water	**Method: EPA 200.7**	**Prep Method: EPA 200.7**

QC1023349 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Boron	ND		mg/L	0.050	0.010	11/04/22	11/05/22

Type: Lab Control Sample	**Lab ID: QC1023350**	**Batch: 300364**
Matrix: Water	**Method: EPA 200.7**	**Prep Method: EPA 200.7**

QC1023350 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Boron	0.3974	0.4000	mg/L	99%		85-115

Type: Matrix Spike	**Lab ID: QC1023351**	**Batch: 300364**
Matrix (Source ID): Water (472093-001)	**Method: EPA 200.7**	**Prep Method: EPA 200.7**

QC1023351 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Boron	1.151	0.7714	0.4000	mg/L	95%		75-125	1

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1023352**	**Batch:**	**300364**
Matrix (Source ID):	**Water (472093-001)**	**Method:**	**EPA 200.7**	**Prep Method:**	**EPA 200.7**

QC1023352 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Boron	1.225	0.7714	0.4000	mg/L	113%		75-125	6	20	1

Type:	**Matrix Spike**	**Lab ID:**	**QC1023549**	**Batch:**	**300364**
Matrix (Source ID):	**Water (472123-003)**	**Method:**	**EPA 200.7**	**Prep Method:**	**EPA 200.7**

QC1023549 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Boron	0.8237	0.3707	0.4000	mg/L	113%		75-125	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1023550**	**Batch:**	**300364**
Matrix (Source ID):	**Water (472123-003)**	**Method:**	**EPA 200.7**	**Prep Method:**	**EPA 200.7**

QC1023550 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Boron	0.7937	0.3707	0.4000	mg/L	106%		75-125	4	20	1

Type:	**Blank**	**Lab ID:**	**QC1023659**	**Batch:**	**300456**
Matrix:	**Water**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1023659 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Chloride	0.85	J	mg/L	1.0	0.50	11/05/22 14:09	11/07/22 02:55
Nitrogen, Nitrate	ND		mg/L	0.10	0.03	11/05/22 14:09	11/07/22 02:55
Sulfate	ND		mg/L	1.0	0.25	11/05/22 14:09	11/07/22 02:55

Type:	**Lab Control Sample**	**Lab ID:**	**QC1023660**	**Batch:**	**300456**
Matrix:	**Water**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1023660 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Chloride	48.16	50.00	mg/L	96%		90-110
Nitrogen, Nitrate	4.443	4.518	mg/L	98%		90-110
Sulfate	23.93	25.00	mg/L	96%		90-110

ENTHALPY ANALYTICAL

Batch QC

Type:	Matrix Spike	Lab ID:	QC1023661	Batch:	300456
Matrix (Source ID):	Water (472324-001)	Method:	EPA 300.0	Prep Method:	METHOD

QC1023661 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Chloride	19.32	0.9938	20.00	mg/L	92%		80-120	1
Nitrogen, Nitrate	1.906	ND	1.807	mg/L	105%		80-120	1
Sulfate	9.799	ND	10.00	mg/L	98%		80-120	1

Type:	Matrix Spike Duplicate	Lab ID:	QC1023662	Batch:	300456
Matrix (Source ID):	Water (472324-001)	Method:	EPA 300.0	Prep Method:	METHOD

QC1023662 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Chloride	20.11	0.9938	20.00	mg/L	96%		80-120	4	20	1
Nitrogen, Nitrate	1.978	ND	1.807	mg/L	109%		80-120	4	20	1
Sulfate	10.25	ND	10.00	mg/L	102%		80-120	4	20	1

Type:	Matrix Spike	Lab ID:	QC1023663	Batch:	300456
Matrix (Source ID):	Water (472324-002)	Method:	EPA 300.0	Prep Method:	METHOD

QC1023663 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Chloride	389.2	391.2	20.00	mg/L	-10%	NM	80-120	10
Nitrogen, Nitrate	1.873	ND	1.807	mg/L	104%		80-120	10
Sulfate	317.1	310.8	10.00	mg/L	63%	NM	80-120	10

Type:	Matrix Spike Duplicate	Lab ID:	QC1023664	Batch:	300456
Matrix (Source ID):	Water (472324-002)	Method:	EPA 300.0	Prep Method:	METHOD

QC1023664 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Chloride	389.6	391.2	20.00	mg/L	-8%	NM	80-120	0	20	10
Nitrogen, Nitrate	1.835	ND	1.807	mg/L	102%		80-120	2	20	10
Sulfate	317.4	310.8	10.00	mg/L	66%	NM	80-120	0	20	10

Type:	Blank	Lab ID:	QC1024065	Batch:	300574
Matrix:	Water	Method:	EPA 300.0	Prep Method:	METHOD

QC1024065 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Chloride	0.86	J	mg/L	1.0	0.50	11/07/22 13:21	11/07/22 14:23
Sulfate	ND		mg/L	1.0	0.25	11/07/22 13:21	11/07/22 14:23

ENTHALPY ANALYTICAL

Batch QC

Type: Lab Control Sample	Lab ID: QC1024066	Batch: 300574
Matrix: Water	Method: EPA 300.0	Prep Method: METHOD

QC1024066 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Chloride	47.94	50.00	mg/L	96%		90-110
Sulfate	23.92	25.00	mg/L	96%		90-110

Type: Matrix Spike	Lab ID: QC1024067	Batch: 300574
Matrix (Source ID): Water (472258-001)	Method: EPA 300.0	Prep Method: METHOD

QC1024067 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Chloride	108.1	93.17	20.00	mg/L	75%	E,NM	80-120	1
Sulfate	322.9	318.0	10.00	mg/L	49%	E,NM	80-120	1

Type: Matrix Spike Duplicate	Lab ID: QC1024068	Batch: 300574
Matrix (Source ID): Water (472258-001)	Method: EPA 300.0	Prep Method: METHOD

QC1024068 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Chloride	108.3	93.17	20.00	mg/L	76%	E,NM	80-120		20	1
Sulfate	322.9	318.0	10.00	mg/L	49%	E,NM	80-120		20	1

Type: Blank	Lab ID: QC1023008	Batch: 300254
Matrix: Water	Method: EPA 300.0	Prep Method: METHOD

QC1023008 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	11/02/22 18:48	11/03/22 00:53
Nitrogen, Nitrate	ND		mg/L	0.10	0.03	11/02/22 18:48	11/03/22 00:53

Type: Lab Control Sample	Lab ID: QC1023009	Batch: 300254
Matrix: Water	Method: EPA 300.0	Prep Method: METHOD

QC1023009 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Nitrite	4.543	4.567	mg/L	99%		90-110
Nitrogen, Nitrate	4.512	4.518	mg/L	100%		90-110

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike**	**Lab ID:**	**QC1023010**	**Batch:**	**300254**
Matrix (Source ID):	**Drinking Water (472066-001)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1023010 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Nitrite	1.365	0.03065	1.827	mg/L	73%	*	80-120	1
Nitrogen, Nitrate	6.176	3.729	1.807	mg/L	135%	*	80-120	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1023011**	**Batch:**	**300254**
Matrix (Source ID):	**Drinking Water (472066-001)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1023011 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Nitrite	1.379	0.03065	1.827	mg/L	74%	*	80-120	1	20	1
Nitrogen, Nitrate	6.185	3.729	1.807	mg/L	136%	*	80-120	0	20	1

Type:	**Matrix Spike**	**Lab ID:**	**QC1023012**	**Batch:**	**300254**
Matrix (Source ID):	**Drinking Water (472117-005)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1023012 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Nitrite	1.618	0.1794	1.827	mg/L	79%	*	80-120	5
Nitrogen, Nitrate	2.775	0.8578	1.807	mg/L	106%		80-120	5

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1023013**	**Batch:**	**300254**
Matrix (Source ID):	**Drinking Water (472117-005)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1023013 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Nitrite	1.630	0.1794	1.827	mg/L	79%	*	80-120	1	20	5
Nitrogen, Nitrate	2.789	0.8578	1.807	mg/L	107%		80-120	0	20	5

Type:	**Lab Control Sample**	**Lab ID:**	**QC1024928**	**Batch:**	**300869**
Matrix:	**Water**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1024928 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Total Kjeldahl	2.503	2.500	mg/L	100%		90-110

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	Lab ID: QC1024929	Batch: 300869
Matrix: Water	Method: EPA 351.2	Prep Method: METHOD

QC1024929 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Total Kjeldahl	ND		mg/L	0.20	0.062	11/11/22	11/11/22

Type: Sample Duplicate	Lab ID: QC1023034	Batch: 300263
Matrix (Source ID): Drinking Water (472110-011)	Method: SM 2150B	

QC1023034 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Odor	ND	ND	TON			20	1

Type: Blank	Lab ID: QC1023545	Batch: 300431
Matrix: Drinking Water	Method: SM 4500-CL-G	

QC1023545 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Chlorine, Total Residual	ND		mg/L	0.10	0.026	11/04/22 18:07	11/04/22 18:07

Type: Lab Control Sample	Lab ID: QC1023546	Batch: 300431
Matrix: Drinking Water	Method: SM 4500-CL-G	

QC1023546 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Chlorine, Total Residual	1.089	1.000	mg/L	109%		80-120

Type: Sample Duplicate	Lab ID: QC1023547	Batch: 300431
Matrix (Source ID): Drinking Water (472077-001)	Method: SM 4500-CL-G	

QC1023547 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Chlorine, Total Residual	1.090	1.091	mg/L		0	20	1

Type: Sample Duplicate	Lab ID: QC1023267	Batch: 300339
Matrix (Source ID): Water (472106-002)	Method: SM 4500-H+ B	

QC1023267 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
pH	6.640	6.660	SU		0	20	1
Temperature	19.50	19.40	deg C		1	20	1

ENTHALPY ANALYTICAL

Batch QC

Type: Lab Control Sample	**Lab ID:** QC1024505	**Batch:** 300728
Matrix: Water	**Method:** SM 4500-NH3-G	

QC1024505 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Ammonia-N	2.272	2.500	mg/L	91%		80-120

Type: Blank	**Lab ID:** QC1024506	**Batch:** 300728
Matrix: Water	**Method:** SM 4500-NH3-G	

QC1024506 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Ammonia-N	ND		mg/L	0.10	0.045	11/09/22	11/09/22

Type: Matrix Spike	**Lab ID:** QC1024509	**Batch:** 300728
Matrix (Source ID): Water (472211-002)	**Method:** SM 4500-NH3-G	

QC1024509 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Ammonia-N	2.383	0.1798	2.500	mg/L	88%		80-120	1

Type: Matrix Spike Duplicate	**Lab ID:** QC1024510	**Batch:** 300728
Matrix (Source ID): Water (472211-002)	**Method:** SM 4500-NH3-G	

QC1024510 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Ammonia-N	2.404	0.1798	2.500	mg/L	89%		80-120	1	20	1

Type: Blank	**Lab ID:** QC1025635	**Batch:** 301083
Matrix: Water	**Method:** SM 4500-P-B5-E	

QC1025635 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Phosphorus	ND		mg/L	0.020	0.0054	11/18/22	11/18/22

Type: Lab Control Sample	**Lab ID:** QC1025636	**Batch:** 301083
Matrix: Water	**Method:** SM 4500-P-B5-E	

QC1025636 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Phosphorus	0.3920	0.4000	mg/L	98%		80-120

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike**	**Lab ID:**	**QC1025637**	**Batch:**	**301083**
Matrix (Source ID):	**Water (472123-001)**	**Method:**	**SM 4500-P-B5-E**		

QC1025637 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Phosphorus	1.075	0.3630	1.000	mg/L	71%	*	75-125	2.5

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1025638**	**Batch:**	**301083**
Matrix (Source ID):	**Water (472123-001)**	**Method:**	**SM 4500-P-B5-E**		

QC1025638 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Phosphorus	1.075	0.3630	1.000	mg/L	71%	*	75-125	0	20	2.5

Type:	**Matrix Spike**	**Lab ID:**	**QC1024086**	**Batch:**	**300582**
Matrix (Source ID):	**Water (471950-001)**	**Method:**	**SM 5310B**		

QC1024086 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Total Organic Carbon	48.25	11.24	40.00	mg/L	93%		80-120	4

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1024087**	**Batch:**	**300582**
Matrix (Source ID):	**Water (471950-001)**	**Method:**	**SM 5310B**		

QC1024087 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Total Organic Carbon	55.52	11.24	40.00	mg/L	111%		80-120	14	20	4

Type:	**Lab Control Sample**	**Lab ID:**	**QC1024088**	**Batch:**	**300582**
Matrix:	**Drinking Water**	**Method:**	**SM 5310B**		

QC1024088 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Organic Carbon	8.998	10.00	mg/L	90%		80-120

Type:	**Blank**	**Lab ID:**	**QC1024089**	**Batch:**	**300582**
Matrix:	**Drinking Water**	**Method:**	**SM 5310B**		

QC1024089 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Organic Carbon	ND		mg/L	1.0	0.23	11/04/22	11/04/22

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Batch QC

Type: Sample Duplicate	Lab ID: QC1023031	Batch: 300262
Matrix (Source ID): Drinking Water (472110-011)	Method: SM2120B	

QC1023031 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Color	ND	ND	ColorUnits			20	1

Type: Sample Duplicate	Lab ID: QC1023186	Batch: 300311
Matrix (Source ID): Water (472123-002)	Method: SM2130B	

QC1023186 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Turbidity	55.80	51.40	NTU		8	20	2

Type: Blank	Lab ID: QC1023473	Batch: 300403
Matrix: Water	Method: SM2540C	Prep Method: METHOD

QC1023473 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Dissolved Solids	ND		mg/L	10		11/04/22	11/05/22

Type: Lab Control Sample	Lab ID: QC1023474	Batch: 300403
Matrix: Water	Method: SM2540C	Prep Method: METHOD

QC1023474 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Dissolved Solids	928.0	1000	mg/L	93%		90-110

Type: Sample Duplicate	Lab ID: QC1023475	Batch: 300403
Matrix (Source ID): Water (472153-005)	Method: SM2540C	Prep Method: METHOD

QC1023475 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Dissolved Solids	1,228	1268	mg/L		3	5	4

Type: Blank	Lab ID: QC1023985	Batch: 300534
Matrix: Water	Method: SM2540D	Prep Method: METHOD

QC1023985 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Suspended Solids	ND		mg/L	0.5		11/04/22	11/04/22

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Batch QC

Type:	**Sample Duplicate**	**Lab ID:**	**QC1023986**	**Batch:**	**300534**
Matrix (Source ID):	**Water (472114-001)**	**Method:**	**SM2540D**	**Prep Method:**	**METHOD**

QC1023986 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Suspended Solids	412.0	406.0	mg/L		1	5	20

Type: **Blank**	**Lab ID:** **QC1022983**	**Batch:**	**300242**
Matrix: **Water**	**Method:** **SM5210B**	**Prep Method:**	**METHOD**

QC1022983 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Biochemical Oxygen Demand	ND		mg/L	3.0		11/02/22 12:11	11/07/22 12:11

Type: **Lab Control Sample**	**Lab ID:** **QC1022984**	**Batch:**	**300242**
Matrix: **Water**	**Method:** **SM5210B**	**Prep Method:**	**METHOD**

QC1022984 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Biochemical Oxygen Demand	177.0	198.0	mg/L	89%		84.6-115.4

Type: **Blank**	**Lab ID:** **QC1023493**	**Batch:**	**300414**
Matrix: **Water**	**Method:** **SM5540C**		

QC1023493 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Surfactants (MBAS)	ND		mg/L	0.040	0.029	11/04/22 09:30	11/04/22 18:50

Type: **Lab Control Sample**	**Lab ID:** **QC1023494**	**Batch:**	**300414**
Matrix: **Water**	**Method:** **SM5540C**		

QC1023494 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Surfactants (MBAS)	0.9780	1.000	mg/L	98%		80-120

Type: **Matrix Spike**	**Lab ID:** **QC1023495**	**Batch:**	**300414**
Matrix (Source ID): **Water (472211-004)**	**Method:** **SM5540C**		

QC1023495 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Surfactants (MBAS)	0.9590	ND	1.000	mg/L	94%		80-120	1

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Batch QC

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1023496**	**Batch:**	**300414**
Matrix (Source ID):	**Water (472211-004)**	**Method:**	**SM5540C**		

QC1023496 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Surfactants (MBAS)	0.9600	ND	1.000	mg/L	94%		80-120	0	20	1

* Value is outside QC limits
E Response exceeds instrument's linear range
J Estimated value
ND Not Detected
NM Not Meaningful

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

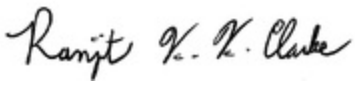
Lab Job Number: 472209
Report Level: II
Report Date: 11/22/2022

Analytical Report *prepared for:*

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Project: MALIBU - Malibu - Quarterly

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 #:	472209
Project No:	MALIBU
Location:	Malibu - Quarterly
Date Received:	11/03/22

Sample ID	Lab ID	Collected	Matrix
N-001	472209-001	11/03/22 10:10	Water
N-002	472209-002	11/03/22 10:30	Water
N-003	472209-003	11/03/22 09:45	Water
N-004	472209-004	11/03/22 10:50	Water
L-001	472209-005	11/03/22 11:40	Water
L-002	472209-006	11/03/22 11:10	Water
L-003	472209-007	11/03/22 11:20	Water
L-004	472209-008	11/03/22 09:20	Water
L-005	472209-009	11/03/22 09:50	Water
L-006	472209-010	11/03/22 09:30	Water

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Case Narrative

Rincon Consultants - Ventura 2060 Knoll Drive Unit B Ventura, CA 93001 Kiernan Brtalik	Lab Job Number: 472209 Project No: MALIBU Location: Malibu - Quarterly Date Received: 11/03/22

This data package contains sample and QC results for ten water samples, requested for the above referenced project on 11/03/22. The samples were received cold and intact.

Ion Chromatography (EPA 300.0 and EPA 300.0):

- Low recoveries were observed for nitrogen, nitrite and nitrogen, nitrate in the MS/MSD of N-001 (lab # 472209-001).
- Many samples were diluted due to problematic matrix.
- No other analytical problems were encountered.

Total Phosphorus as P (SM 4500-P-B5-E):

- Low recoveries were observed for phosphorus in the MS/MSD of SMBRP-9 (lab # 472123-001); the LCS was within limits.
- No other 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.

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: 472209				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 c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614		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					

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Rincon Consultants	Name:	Malibu - Quarterly
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	11/3/22	10:10	Water			X	X	X	5.5/2.9 3.9/2.1 3.5/1.2
N-002		10:30				X	X	X	
N-003		9:45				X	X	X	
N-004		10:50				X	X	X	
L-001		11:40				X	X	X	
L-002		11:10				X	X	X	
L-003		11:20				X	X	X	
L-004		9:20				X	X	X	
L-005		9:50				X	X	X	
L-006		9:30				X	X	X	

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		Lindsey Stockton	Rincon	11/3/22 1210
[1] Received By:		Landon Lujan	Rincon	11/3/22 1210
[2] Relinquished By:		Landon Lujan	Rincon	11/3/22 1418
[2] Received By:		GGawat	EA	11.03.22 1415
[3] Relinquished By:		GGawat	EA	11-03-22 1653
[3] Received By:		Elizabeth Ramirez	EA	11/03/22 1653

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants, Inc. Project: Malibu-Quarterly

Date Received: 11/03/22 Sampler's Name Present: ☐ Yes ☑ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 4 SR 11/03/22 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 5.5 #2: 3.9 #3: 3.5 #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: 2.9 #2: 2.1 #3: 1.2 #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: 11/03/22

ENTHALPY ANALYTICAL

Analysis Results for 472209

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #: 472209
Project No: MALIBU
Location: Malibu - Quarterly
Date Received: 11/03/22

Sample ID: N-001 **Lab ID: 472209-001** **Collected: 11/03/22 10:10**
Matrix: Water

472209-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	ND		mg/L	10	2.0	100	300353	11/03/22 18:53	11/04/22 19:08	RKV
Nitrogen, Nitrate	ND		mg/L	10	3.2	100	300353	11/03/22 18:53	11/04/22 19:08	RKV
Nitrogen, Nitrate/Nitrite	ND		mg/L	10		100	300353	11/03/22 18:53	11/04/22 19:08	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.82**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 4500-NH3-G										
Ammonia-N	**0.063**	J	mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Nitrogen, Total Kjeldahl	**0.88**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.045**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 9223Bb										
Fecal Coliform	**42**		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472209

Sample ID: N-002	Lab ID: 472209-002	Collected: 11/03/22 10:30
	Matrix: Water	

472209-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	ND		mg/L	10	2.0	100	300353	11/03/22 18:53	11/04/22 19:26	RKV
Nitrogen, Nitrate	ND		mg/L	10	3.2	100	300353	11/03/22 18:53	11/04/22 19:26	RKV
Nitrogen, Nitrate/Nitrite	ND		mg/L	10		100	300353	11/03/22 18:53	11/04/22 19:26	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.81**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Nitrogen, Total Kjeldahl	**0.81**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.080**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 9223Bb										
Fecal Coliform	**24**		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA

Sample ID: N-003	Lab ID: 472209-003	Collected: 11/03/22 09:45
	Matrix: Water	

472209-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	ND		mg/L	10	2.0	100	300353	11/03/22 18:53	11/04/22 19:43	RKV
Nitrogen, Nitrate	ND		mg/L	10	3.2	100	300353	11/03/22 18:53	11/04/22 19:43	RKV
Nitrogen, Nitrate/Nitrite	ND		mg/L	10		100	300353	11/03/22 18:53	11/04/22 19:43	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.69**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Nitrogen, Total Kjeldahl	**0.69**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.030**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 9223Bb										
Fecal Coliform	**16**	H	MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Coliform, Total	**>2,400**	H	MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472209

Sample ID: N-004	Lab ID: 472209-004	Collected: 11/03/22 10:50
	Matrix: Water	

472209-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 300.0 Prep Method: METHOD										
Nitrogen, Nitrite	ND		mg/L	10	2.0	100	300353	11/03/22 18:53	11/04/22 20:37	RKV
Nitrogen, Nitrate	ND		mg/L	10	3.2	100	300353	11/03/22 18:53	11/04/22 20:37	RKV
Nitrogen, Nitrate/Nitrite	ND		mg/L	10		100	300353	11/03/22 18:53	11/04/22 20:37	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.91**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Nitrogen, Total Kjeldahl	**0.91**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.17**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Coliform, Total	**2,000**		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA

Sample ID: L-001	Lab ID: 472209-005	Collected: 11/03/22 11:40
	Matrix: Water	

472209-005 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	0.20	10	300353	11/03/22 18:53	11/04/22 20:55	RKV
Nitrogen, Nitrate	ND		mg/L	0.10	0.03	1	300353	11/03/22 18:53	11/04/22 12:36	RKV
Nitrogen, Nitrate/Nitrite	ND		mg/L	0.10		10	300353	11/03/22 18:53	11/04/22 20:55	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.52**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Nitrogen, Total Kjeldahl	**0.52**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.16**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 9223Bb										
Fecal Coliform	**7.5**		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472209

Sample ID: L-002	Lab ID: 472209-006	Collected: 11/03/22 11:10
	Matrix: Water	

472209-006 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	0.20	10	300353	11/03/22 18:53	11/04/22 21:13	RKV
Nitrogen, Nitrate	ND		mg/L	1.0	0.32	10	300353	11/03/22 18:53	11/04/22 21:13	RKV
Nitrogen, Nitrate/Nitrite	ND		mg/L	1.0		10	300353	11/03/22 18:53	11/04/22 21:13	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.52**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Nitrogen, Total Kjeldahl	**0.52**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.10**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 9223Bb										
Fecal Coliform	**40**		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Coliform, Total	**1,000**		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA

Sample ID: L-003	Lab ID: 472209-007	Collected: 11/03/22 11:20
	Matrix: Water	

472209-007 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	0.20	10	300353	11/03/22 18:53	11/04/22 21:31	RKV
Nitrogen, Nitrate	ND		mg/L	0.10	0.03	1	300353	11/03/22 18:53	11/04/22 13:47	RKV
Nitrogen, Nitrate/Nitrite	ND		mg/L	0.10		10	300353	11/03/22 18:53	11/04/22 21:31	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.70**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Nitrogen, Total Kjeldahl	**0.70**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.13**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 9223Bb										
Fecal Coliform	**70**		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Coliform, Total	**>2,400**		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472209

Sample ID: L-004	Lab ID: 472209-008	Collected: 11/03/22 09:20
	Matrix: Water	

472209-008 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	0.20	10	300353	11/03/22 18:53	11/04/22 21:48	RKV
Nitrogen, Nitrate	ND		mg/L	0.10	0.03	1	300353	11/03/22 18:53	11/04/22 14:05	RKV
Nitrogen, Nitrate/Nitrite	ND		mg/L	0.10		10	300353	11/03/22 18:53	11/04/22 21:48	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.70**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Nitrogen, Total Kjeldahl	**0.70**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.088**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 9223Bb										
Fecal Coliform	**20**	H	MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Coliform, Total	**>2,400**	H	MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA

Sample ID: L-005	Lab ID: 472209-009	Collected: 11/03/22 09:50
	Matrix: Water	

472209-009 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	0.20	10	300353	11/03/22 18:53	11/04/22 22:06	RKV
Nitrogen, Nitrate	ND		mg/L	0.10	0.03	1	300353	11/03/22 18:53	11/04/22 14:23	RKV
Nitrogen, Nitrate/Nitrite	ND		mg/L	0.10		10	300353	11/03/22 18:53	11/04/22 22:06	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.94**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Nitrogen, Total Kjeldahl	**0.94**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.50**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 9223Bb										
Fecal Coliform	**820**	H	MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Coliform, Total	**>2,400**	H	MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472209

Sample ID: L-006	Lab ID: 472209-010	Collected: 11/03/22 09:30
	Matrix: Water	

472209-010 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	0.20	10	300353	11/03/22 18:53	11/04/22 22:24	RKV
Nitrogen, Nitrate	ND		mg/L	0.10	0.03	1	300353	11/03/22 18:53	11/04/22 14:41	RKV
Nitrogen, Nitrate/Nitrite	ND		mg/L	0.10		10	300353	11/03/22 18:53	11/04/22 22:24	RKV
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.51**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 4500-NH3-G										
Ammonia-N	**0.053**	J	mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Nitrogen, Total Kjeldahl	**0.56**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.072**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 9223Bb										
Fecal Coliform	**30**	H	MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Coliform, Total	**>2,400**	H	MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA

< 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: QC1023303	Batch: 300353
Matrix: Drinking Water	Method: EPA 300.0	Prep Method: METHOD

QC1023303 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	11/03/22 18:53	11/04/22 10:14
Nitrogen, Nitrate	ND		mg/L	0.10	0.03	11/03/22 18:53	11/04/22 10:14
Nitrogen, Nitrate/Nitrite	ND		mg/L	0.10		11/03/22 18:53	11/04/22 10:14

Type: Lab Control Sample	Lab ID: QC1023304	Batch: 300353
Matrix: Drinking Water	Method: EPA 300.0	Prep Method: METHOD

QC1023304 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Nitrite	4.652	4.567	mg/L	102%		90-110
Nitrogen, Nitrate	4.684	4.518	mg/L	104%		90-110

Type: Matrix Spike	Lab ID: QC1023305	Batch: 300353
Matrix (Source ID): Water (472209-001)	Method: EPA 300.0	Prep Method: METHOD

QC1023305 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Nitrite	0	ND	1.827	mg/L	0%	*	80-120	1
Nitrogen, Nitrate	0.8221	ND	1.807	mg/L	45%	*	80-120	1

Type: Matrix Spike Duplicate	Lab ID: QC1023306	Batch: 300353
Matrix (Source ID): Water (472209-001)	Method: EPA 300.0	Prep Method: METHOD

QC1023306 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Nitrite	0	ND	1.827	mg/L	0%	*	80-120		20	1
Nitrogen, Nitrate	0.8384	ND	1.807	mg/L	46%	*	80-120	2	20	1

Type: Lab Control Sample	Lab ID: QC1024505	Batch: 300728
Matrix: Water	Method: SM 4500-NH3-G	

QC1024505 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Ammonia-N	2.272	2.500	mg/L	91%		80-120

Type: Blank	Lab ID: QC1024506	Batch: 300728
Matrix: Water	Method: SM 4500-NH3-G	

QC1024506 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Ammonia-N	ND		mg/L	0.10	0.045	11/09/22	11/09/22

ENTHALPY ANALYTICAL

Batch QC

Type: Matrix Spike | **Lab ID:** QC1024509 | **Batch:** 300728
Matrix (Source ID): Water (472211-002) | **Method:** SM 4500-NH3-G

QC1024509 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Ammonia-N	2.383	0.1798	2.500	mg/L	88%		80-120	1

Type: Matrix Spike Duplicate | **Lab ID:** QC1024510 | **Batch:** 300728
Matrix (Source ID): Water (472211-002) | **Method:** SM 4500-NH3-G

QC1024510 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Ammonia-N	2.404	0.1798	2.500	mg/L	89%		80-120	1	20	1

Type: Lab Control Sample | **Lab ID:** QC1024928 | **Batch:** 300869
Matrix: Water | **Method:** SM 4500-NH3-G

QC1024928 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Total Kjeldahl	2.503	2.500	mg/L	100%		80-120

Type: Blank | **Lab ID:** QC1024929 | **Batch:** 300869
Matrix: Water | **Method:** SM 4500-NH3-G

QC1024929 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Total Kjeldahl	ND		mg/L	0.20	0.062	11/11/22	11/11/22

Type: Blank | **Lab ID:** QC1025635 | **Batch:** 301083
Matrix: Water | **Method:** SM 4500-P-B5-E

QC1025635 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Phosphorus	ND		mg/L	0.020	0.0054	11/18/22	11/18/22

Type: Lab Control Sample | **Lab ID:** QC1025636 | **Batch:** 301083
Matrix: Water | **Method:** SM 4500-P-B5-E

QC1025636 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Phosphorus	0.3920	0.4000	mg/L	98%		80-120

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Batch QC

Type:	**Matrix Spike**	**Lab ID:**	**QC1025637**	**Batch:**	**301083**
Matrix (Source ID):	**Water (472123-001)**	**Method:**	**SM 4500-P-B5-E**		

QC1025637 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Phosphorus	1.075	0.3630	1.000	mg/L	71%	*	75-125	2.5

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1025638**	**Batch:**	**301083**
Matrix (Source ID):	**Water (472123-001)**	**Method:**	**SM 4500-P-B5-E**		

QC1025638 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Phosphorus	1.075	0.3630	1.000	mg/L	71%	*	75-125	0	20	2.5

* Value is outside QC limits

ND Not Detected

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

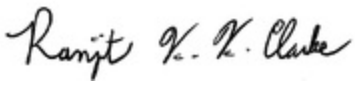
Lab Job Number: 472211
Report Level: II
Report Date: 11/22/2022

Analytical Report *prepared for:*

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Project: MALIBU - Malibu - Quarterly

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 #:	472211
Project No:	MALIBU
Location:	Malibu - Quarterly
Date Received:	11/03/22

Sample ID	Lab ID	Collected	Matrix
SMBRP-12	472211-001	11/03/22 10:45	Water
MCWP-MW04S	472211-002	11/03/22 07:45	Water
MCWP-MW04D	472211-003	11/03/22 09:50	Water
MCWP-MW09	472211-004	11/03/22 12:00	Water

ENTHALPY ANALYTICAL

Case Narrative

Rincon Consultants - Ventura 2060 Knoll Drive Unit B Ventura, CA 93001 Kiernan Brtalik	Lab Job Number: 472211 Project No: MALIBU Location: Malibu - Quarterly Date Received: 11/03/22

This data package contains sample and QC results for four water samples, requested for the above referenced project on 11/03/22. The samples were received cold and intact.

Metals (EPA 200.7):
No analytical problems were encountered.

Ion Chromatography (EPA 300.0):

- Nitrogen, nitrite was detected at or above the RL in the CCB analyzed 11/10/22 21:33; affected data was qualified with "b".
- Nitrogen, nitrite was detected at or above the RL in the CCB analyzed 11/11/22 01:26; affected data was qualified with "b".
- Nitrogen, nitrite was detected at or above the RL in the CCB analyzed 11/11/22 05:20; affected data was qualified with "b".
- High response was observed for sulfate in the CCV analyzed 11/04/22 09:20; affected data was qualified with "b".
- Low recoveries were observed for nitrogen, nitrite and nitrogen, nitrate in the MS/MSD of N-001 (lab # 472209-001).
- SMBRP-12 (lab # 472211-001) and MCWP-MW09 (lab # 472211-004) were diluted due to problematic matrix.
- 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):

- Low recoveries were observed for phosphorus in the MS/MSD of SMBRP-9 (lab # 472123-001); the LCS was within limits.
- No other analytical problems were encountered.

Total Oil & Grease (HEM) (EPA 1664A):

- Matrix spikes were not performed for this analysis due to insufficient sample volume.
- 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.

Biochemical Oxygen Demand (SM5210B):
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.

Surfactants (MBAS) (SM5540C):

- MBAS are calculated and reported as Linear Anionic Surfactants with a molecular weight of 348 g/mol.
- 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):

- High recovery was observed for nitrogen, total kjeldahl in the MS of MCWP-MW04D (lab # 472211-003); the LCS was within limits, and the associated RPD was within limits.
- No other 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	Lab No: 472211				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
Report To:	Kiernan Brtalik	Number:	20-09665
Email:		P.O. #:	
Address:	180 N. Ashwood Ave.	Address:	
	Ventura, CA 93003		
Phone:		Global ID:	
Cell:		Sampled By:	LANDON L. / MIKE G.

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	Test Instructions / Comments
~~SMBRP-9~~						~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
SMBRP-12	11/3/22	1045	GW	11		X	X	X	X	X	X	X	X	5.5 / 2.9
MCWP-MW04S	11/3/22	0745	GW	11		X	X	X	X	X	X	X	X	3.9 / 2.1
MCWP-MW04D	11/3/22	0950	GW	11		X	X	X	X	X	X	X	X	3.5 / 1.2
~~MCWP-MW07S~~						~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
~~MCWP-MW07D~~						~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	
MCWP-MW09	11/3/22	1200	GW	11		X	X	X	X	X	X	X	X	

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		LANDON LUJAN	RINCON CONSULTANTS	11/3/22 1415
[1] Received By:		GGawat	EA	11.03.22 1415
[2] Relinquished By:		GGAWAT	EA	11-03.22 1653
[2] Received By:		Elizabeth Ramm	EA	11/03/22 16:53

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Rincon Consultants, Inc. Project: Malibu-Quarterly

Date Received: 11/03/22 Sampler's Name Present: ☐ Yes ☑ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 4 3 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 5.5 #2: 3.9 #3: 3.5 #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: 2.9 #2: 2.1 #3: 1.2 #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: 11/03/22

ENTHALPY ANALYTICAL

Analysis Results for 472211

Kiernan Brtalik
Rincon Consultants - Ventura
2060 Knoll Drive
Unit B
Ventura, CA 93001

Lab Job #: 472211
Project No: MALIBU
Location: Malibu - Quarterly
Date Received: 11/03/22

Sample ID: SMBRP-12 **Lab ID: 472211-001** **Collected: 11/03/22 10:45**
Matrix: Water

472211-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 1664A Prep Method: METHOD										
Total Oil and Grease	**2.8**		mg/L	5.6	1.6	1.1	301085	11/13/22	11/13/22	ATP
Method: EPA 200.7 Prep Method: EPA 200.7										
Boron	**1.1**		mg/L	0.050	0.010	1	300535	11/07/22	11/09/22	SBW
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**3,300**		mg/L	250	25	50	300876	11/10/22 17:09	11/10/22 22:31	RKV
Nitrogen, Nitrite	ND		mg/L	1.0	0.20	10	300353	11/03/22 18:53	11/04/22 22:42	RKV
Nitrogen, Nitrate	ND		mg/L	1.0	0.32	10	300353	11/03/22 18:53	11/04/22 22:42	RKV
Sulfate	**970**		mg/L	130	13	50	300876	11/10/22 17:09	11/10/22 22:31	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	**7.9**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	ND		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 2150B										
Odor	ND		TON	1.0		1	300354	11/03/22 18:20	11/03/22 18:20	LVL
Method: SM 4500-CL-G										
Chlorine, Total Residual	ND	H	mg/L	0.10	0.026	1	300431	11/04/22 18:07	11/04/22 18:07	DNA
Method: SM 4500-H+ B										
pH	**6.87**	H	SU			1	300384	11/04/22 09:24	11/04/22 09:24	WWC
Temperature	**10.20**	H	deg C	1.00		1	300384	11/04/22 09:24	11/04/22 09:24	WWC
Method: SM 4500-NH3-G										
Ammonia-N	**8.2**		mg/L	0.50	0.22	5	300728	11/09/22	11/09/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.86**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472211

472211-001 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 5310B										
Total Organic Carbon	**8.4**		mg/L	1.0	0.23	1	300592	11/04/22	11/04/22	PWM
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Coliform, Total	**5.2**		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Method: SM2120B										
Color	**50**		ColorUnits	5		1	300355	11/03/22 18:20	11/03/22 18:20	LVL
Method: SM2130B										
Turbidity	**17**		NTU	0.10	0.02	1	300311	11/03/22 11:53	11/03/22 11:53	LVL
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**7,000**		mg/L	100		10	300405	11/04/22	11/05/22	ATP
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	**16**		mg/L	0.6		1.1	300560	11/07/22	11/07/22	ATP
Method: SM5210B Prep Method: METHOD										
Biochemical Oxygen Demand	ND		mg/L	3.0		1	300383	11/04/22 09:24	11/09/22 14:50	DNA
Method: SM5540C										
Surfactants (MBAS)	**0.070**		mg/L	0.040	0.029	1	300414	11/04/22 09:30	11/04/22 18:50	ATP
Method: TOTAL NITROGEN										
Total Nitrogen	**7.9**		mg/L			1	301516	11/18/22	11/18/22	DCD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472211

Sample ID: MCWP-MW04S	Lab ID: 472211-002	Collected: 11/03/22 07:45
	Matrix: Water	

472211-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 1664A Prep Method: METHOD										
Total Oil and Grease	**2.4**		mg/L	5.6	1.6	1.1	301085	11/13/22	11/13/22	ATP
Method: EPA 200.7 Prep Method: EPA 200.7										
Boron	**2.0**		mg/L	0.050	0.010	1	300535	11/07/22	11/09/22	SBW
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**480**		mg/L	10	5.0	10	300353	11/03/22 18:53	11/04/22 23:36	RKV
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	1	300353	11/03/22 18:53	11/04/22 15:16	RKV
Nitrogen, Nitrate	**0.58**		mg/L	0.10	0.03	1	300353	11/03/22 18:53	11/04/22 15:16	RKV
Sulfate	**2,800**		mg/L	250	25	100	300876	11/10/22 17:09	11/10/22 22:51	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	**0.62**		mg/L	0.40	0.12	1	300869	11/11/22	11/11/22	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	**0.44**		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 2150B										
Odor	ND		TON	1.0		1	300354	11/03/22 18:20	11/03/22 18:20	LVL
Method: SM 4500-CL-G										
Chlorine, Total Residual	ND	H	mg/L	0.10	0.026	1	300431	11/04/22 18:07	11/04/22 18:07	DNA
Method: SM 4500-H+ B										
pH	**7.55**	H	SU			1	300384	11/04/22 09:19	11/04/22 09:19	WWC
Temperature	**9.90**	H	deg C	1.00		1	300384	11/04/22 09:19	11/04/22 09:19	WWC
Method: SM 4500-NH3-G										
Ammonia-N	**0.18**		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.49**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 5310B										
Total Organic Carbon	**21**		mg/L	1.0	0.23	1	300592	11/04/22	11/04/22	PWM
Method: SM 9223Bb										
Fecal Coliform	**18**	H	MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472211

472211-002 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Coliform, Total	**>2,400**	H	MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Method: SM2120B										
Color	**35**		ColorUnits	5		1	300355	11/03/22 18:20	11/03/22 18:20	LVL
Method: SM2130B										
Turbidity	**6.7**		NTU	0.10	0.02	1	300311	11/03/22 11:53	11/03/22 11:53	LVL
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**5,000**		mg/L	20		2	300405	11/04/22	11/05/22	ATP
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	**18**		mg/L	0.6		1.1	300560	11/07/22	11/07/22	ATP
Method: SM5210B Prep Method: METHOD										
Biochemical Oxygen Demand	ND		mg/L	3.0		1	300383	11/04/22 09:19	11/09/22 14:50	DNA
Method: SM5540C										
Surfactants (MBAS)	**0.11**		mg/L	0.040	0.029	1	300414	11/04/22 09:30	11/04/22 18:50	ATP
Method: TOTAL NITROGEN										
Total Nitrogen	**1.2**		mg/L			1	301516	11/18/22	11/18/22	DCD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472211

Sample ID: MCWP-MW04D	Lab ID: 472211-003	Collected: 11/03/22 09:50
	Matrix: Water	

472211-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 1664A Prep Method: METHOD										
Total Oil and Grease	**1.6**		mg/L	5.6	1.6	1.1	301085	11/13/22	11/13/22	ATP
Method: EPA 200.7 Prep Method: EPA 200.7										
Boron	**0.86**		mg/L	0.050	0.010	1	300535	11/07/22	11/09/22	SBW
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**250**		mg/L	10	5.0	10	300353	11/03/22 18:53	11/04/22 23:53	RKV
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	1	300353	11/03/22 18:53	11/04/22 15:34	RKV
Nitrogen, Nitrate	**1.2**		mg/L	0.10	0.03	1	300353	11/03/22 18:53	11/04/22 15:34	RKV
Sulfate	**640**		mg/L	63	6.3	25	300876	11/10/22 17:09	11/10/22 23:10	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	ND		mg/L	0.40	0.12	1	300871	11/11/22	11/11/22	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	ND		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 2150B										
Odor	ND		TON	1.0		1	300354	11/03/22 18:20	11/03/22 18:20	LVL
Method: SM 4500-CL-G										
Chlorine, Total Residual	ND	H	mg/L	0.10	0.026	1	300431	11/04/22 18:07	11/04/22 18:07	DNA
Method: SM 4500-H+ B										
pH	**7.11**	H	SU			1	300384	11/04/22 09:19	11/04/22 09:19	WWC
Temperature	**10.20**	H	deg C	1.00		1	300384	11/04/22 09:19	11/04/22 09:19	WWC
Method: SM 4500-NH3-G										
Ammonia-N	ND		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.052**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 5310B										
Total Organic Carbon	**3.2**		mg/L	1.0	0.23	1	300592	11/04/22	11/04/22	PWM
Method: SM 9223Bb										
Fecal Coliform	<1.0	H	MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472211

472211-003 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Coliform, Total	<1.0	H	MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Method: SM2120B										
Color	ND		ColorUnits	5		1	300355	11/03/22 18:20	11/03/22 18:20	LVL
Method: SM2130B										
Turbidity	**0.16**		NTU	0.10	0.02	1	300311	11/03/22 11:53	11/03/22 11:53	LVL
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**1,500**		mg/L	20		2	300405	11/04/22	11/05/22	ATP
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	**1.3**		mg/L	0.6		1.1	300560	11/07/22	11/07/22	ATP
Method: SM5210B Prep Method: METHOD										
Biochemical Oxygen Demand	ND		mg/L	3.0		1	300383	11/04/22 09:19	11/09/22 14:50	DNA
Method: SM5540C										
Surfactants (MBAS)	ND		mg/L	0.040	0.029	1	300414	11/04/22 09:30	11/04/22 18:50	ATP
Method: TOTAL NITROGEN										
Total Nitrogen	**1.2**		mg/L			1	301516	11/18/22	11/18/22	DCD

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472211

Sample ID: MCWP-MW09	Lab ID: 472211-004	Collected: 11/03/22 12:00
	Matrix: Water	

472211-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 1664A Prep Method: METHOD										
Total Oil and Grease	**2.3**		mg/L	5.6	1.6	1.1	301085	11/13/22	11/13/22	ATP
Method: EPA 200.7 Prep Method: EPA 200.7										
Boron	**0.86**		mg/L	0.050	0.010	1	300535	11/07/22	11/09/22	SBW
Method: EPA 300.0 Prep Method: METHOD										
Chloride	**710**		mg/L	10	5.0	10	300353	11/03/22 18:53	11/05/22 00:11	RKV
Nitrogen, Nitrite	ND		mg/L	1.0	0.20	10	300353	11/03/22 18:53	11/05/22 00:11	RKV
Nitrogen, Nitrate	ND		mg/L	1.0	0.32	10	300353	11/03/22 18:53	11/05/22 00:11	RKV
Sulfate	**700**		mg/L	63	6.3	25	300876	11/10/22 17:09	11/10/22 23:30	RKV
Method: EPA 351.2 Prep Method: METHOD										
Nitrogen, Total Kjeldahl	**1.9**		mg/L	0.40	0.12	1	300871	11/11/22	11/11/22	PWM
Method: ORGANIC NITROGEN										
Organic Nitrogen as N	ND		mg/L			1	301513	11/18/22	11/18/22	DCD
Method: SM 2150B										
Odor	ND		TON	1.0		1	300354	11/03/22 18:20	11/03/22 18:20	LVL
Method: SM 4500-CL-G										
Chlorine, Total Residual	ND	H	mg/L	0.10	0.026	1	300431	11/04/22 18:07	11/04/22 18:07	DNA
Method: SM 4500-H+ B										
pH	**7.12**	H	SU			1	300384	11/04/22 09:17	11/04/22 09:17	WWC
Temperature	**11.70**	H	deg C	1.00		1	300384	11/04/22 09:17	11/04/22 09:17	WWC
Method: SM 4500-NH3-G										
Ammonia-N	**1.9**		mg/L	0.10	0.045	1	300728	11/09/22	11/09/22	PWM
Method: SM 4500-P-B5-E										
Phosphorus	**0.16**		mg/L	0.020	0.0054	1	301083	11/18/22	11/18/22	ATP
Method: SM 5310B										
Total Organic Carbon	**3.3**		mg/L	1.0	0.23	1	300592	11/04/22	11/04/22	PWM
Method: SM 9223Bb										
Fecal Coliform	<1.0		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 472211

472211-004 Analyte	Result	Qual	Units	RL	MDL	DF	Batch	Prepared	Analyzed	Chemist
Coliform, Total	<1.0		MPN/100ml	1.0		1	300348	11/03/22 17:57	11/04/22 13:40	JAA
Method: SM2120B										
Color	**10**		ColorUnits	5		1	300355	11/03/22 18:20	11/03/22 18:20	LVL
Method: SM2130B										
Turbidity	**2.6**		NTU	0.10	0.02	1	300311	11/03/22 11:53	11/03/22 11:53	LVL
Method: SM2540C Prep Method: METHOD										
Total Dissolved Solids	**2,300**		mg/L	20		2	300405	11/04/22	11/05/22	ATP
Method: SM2540D Prep Method: METHOD										
Total Suspended Solids	**2.1**		mg/L	0.6		1.1	300560	11/07/22	11/07/22	ATP
Method: SM5210B Prep Method: METHOD										
Biochemical Oxygen Demand	**7.6**		mg/L	3.0		1	300383	11/04/22 09:17	11/09/22 14:50	DNA
Method: SM5540C										
Surfactants (MBAS)	ND		mg/L	0.040	0.029	1	300414	11/04/22 09:30	11/04/22 18:50	ATP
Method: TOTAL NITROGEN										
Total Nitrogen	**1.9**		mg/L			1	301516	11/18/22	11/18/22	DCD

< Value is less than indicated concentration
> Value exceeds indicated concentration
H Holding time was exceeded
ND Not Detected

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	**Lab ID:** QC1025643	**Batch:** 301085
Matrix: Water	**Method:** EPA 1664A	**Prep Method:** METHOD

QC1025643 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Oil and Grease	ND		mg/L	5.0	1.4	11/13/22	11/13/22

Type: Lab Control Sample	**Lab ID:** QC1025644	**Batch:** 301085
Matrix: Water	**Method:** EPA 1664A	**Prep Method:** METHOD

QC1025644 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Oil and Grease	39.70	40.00	mg/L	99%		78-114

Type: Lab Control Sample Duplicate	**Lab ID:** QC1025645	**Batch:** 301085
Matrix: Water	**Method:** EPA 1664A	**Prep Method:** METHOD

QC1025645 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
Total Oil and Grease	40.30	40.00	mg/L	101%		78-114	2	18

Type: Blank	**Lab ID:** QC1023987	**Batch:** 300535
Matrix: Water	**Method:** EPA 200.7	**Prep Method:** EPA 200.7

QC1023987 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Boron	ND		mg/L	0.050	0.010	11/07/22	11/08/22

Type: Lab Control Sample	**Lab ID:** QC1023988	**Batch:** 300535
Matrix: Water	**Method:** EPA 200.7	**Prep Method:** EPA 200.7

QC1023988 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Boron	0.4251	0.4000	mg/L	106%		85-115

Type: Matrix Spike	**Lab ID:** QC1023989	**Batch:** 300535
Matrix (Source ID): Water (472161-001)	**Method:** EPA 200.7	**Prep Method:** EPA 200.7

QC1023989 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Boron	0.5665	0.1306	0.4000	mg/L	109%		75-125	1

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1023990**	**Batch:**	**300535**
Matrix (Source ID):	**Water (472161-001)**	**Method:**	**EPA 200.7**	**Prep Method:**	**EPA 200.7**

QC1023990 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Boron	0.5630	0.1306	0.4000	mg/L	108%		75-125	1	20	1

Type:	**Matrix Spike**	**Lab ID:**	**QC1023991**	**Batch:**	**300535**
Matrix (Source ID):	**Water (472217-001)**	**Method:**	**EPA 200.7**	**Prep Method:**	**EPA 200.7**

QC1023991 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Boron	3.947	3.303	0.4000	mg/L	161%	NM	75-125	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1023992**	**Batch:**	**300535**
Matrix (Source ID):	**Water (472217-001)**	**Method:**	**EPA 200.7**	**Prep Method:**	**EPA 200.7**

QC1023992 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Boron	3.671	3.303	0.4000	mg/L	92%	NM	75-125	7	20	1

Type:	**Blank**	**Lab ID:**	**QC1023303**	**Batch:**	**300353**
Matrix:	**Drinking Water**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1023303 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Chloride	ND		mg/L	1.0	0.50	11/03/22 18:53	11/04/22 10:14
Nitrogen, Nitrite	ND		mg/L	0.10	0.02	11/03/22 18:53	11/04/22 10:14
Nitrogen, Nitrate	ND		mg/L	0.10	0.03	11/03/22 18:53	11/04/22 10:14

Type:	**Lab Control Sample**	**Lab ID:**	**QC1023304**	**Batch:**	**300353**
Matrix:	**Drinking Water**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1023304 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Chloride	49.80	50.00	mg/L	100%		90-110
Nitrogen, Nitrite	4.652	4.567	mg/L	102%		90-110
Nitrogen, Nitrate	4.684	4.518	mg/L	104%		90-110

ENTHALPY ANALYTICAL

Batch QC

Type:	Matrix Spike	Lab ID:	QC1023305	Batch:	300353
Matrix (Source ID):	Water (472209-001)	Method:	EPA 300.0	Prep Method:	METHOD

QC1023305 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Chloride	1,255	27640	20.00	mg/L	-131916%	E,NM	80-120	1
Nitrogen, Nitrite	0	ND	1.827	mg/L	0%	*	80-120	1
Nitrogen, Nitrate	0.8221	ND	1.807	mg/L	45%	*	80-120	1

Type:	Matrix Spike Duplicate	Lab ID:	QC1023306	Batch:	300353
Matrix (Source ID):	Water (472209-001)	Method:	EPA 300.0	Prep Method:	METHOD

QC1023306 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Chloride	1,220	27640	20.00	mg/L	-132091%	E,NM	80-120		20	1
Nitrogen, Nitrite	0	ND	1.827	mg/L	0%	*	80-120		20	1
Nitrogen, Nitrate	0.8384	ND	1.807	mg/L	46%	*	80-120	2	20	1

Type:	Blank	Lab ID:	QC1024944	Batch:	300876
Matrix:	Water	Method:	EPA 300.0	Prep Method:	METHOD

QC1024944 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Chloride	ND		mg/L	5.0	0.50	11/10/22 17:09	11/10/22 21:53
Sulfate	ND		mg/L	2.5	0.25	11/10/22 17:09	11/10/22 21:53

Type:	Lab Control Sample	Lab ID:	QC1024945	Batch:	300876
Matrix:	Water	Method:	EPA 300.0	Prep Method:	METHOD

QC1024945 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Chloride	48.02	50.00	mg/L	96%		90-110
Sulfate	25.11	25.00	mg/L	100%		90-110

Type:	Matrix Spike	Lab ID:	QC1024957	Batch:	300876
Matrix (Source ID):	Water (472643-004)	Method:	EPA 300.0	Prep Method:	METHOD

QC1024957 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Chloride	41.72	3.559	40.00	mg/L	95%		80-120	1
Sulfate	26.44	3.881	20.00	mg/L	113%		80-120	1

ENTHALPY ANALYTICAL

Batch QC

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1024958**	**Batch:**	**300876**
Matrix (Source ID):	**Water (472643-004)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1024958 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Chloride	41.72	3.559	40.00	mg/L	95%		80-120	0	20	1
Sulfate	26.39	3.881	20.00	mg/L	113%		80-120	0	20	1

Type:	**Matrix Spike**	**Lab ID:**	**QC1024963**	**Batch:**	**300876**
Matrix (Source ID):	**Water (472727-005)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1024963 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Chloride	39.44	ND	40.00	mg/L	99%		80-120	1
Sulfate	19.70	ND	20.00	mg/L	98%		80-120	1

Type:	**Matrix Spike Duplicate**	**Lab ID:**	**QC1024964**	**Batch:**	**300876**
Matrix (Source ID):	**Water (472727-005)**	**Method:**	**EPA 300.0**	**Prep Method:**	**METHOD**

QC1024964 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Chloride	42.44	ND	40.00	mg/L	106%		80-120	7	20	1
Sulfate	19.86	ND	20.00	mg/L	99%		80-120	1	20	1

Type:	**Lab Control Sample**	**Lab ID:**	**QC1024928**	**Batch:**	**300869**
Matrix:	**Water**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1024928 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Total Kjeldahl	2.503	2.500	mg/L	100%		90-110

Type:	**Blank**	**Lab ID:**	**QC1024929**	**Batch:**	**300869**
Matrix:	**Water**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1024929 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Total Kjeldahl	ND		mg/L	0.20	0.062	11/11/22	11/11/22

Type:	**Lab Control Sample**	**Lab ID:**	**QC1024922**	**Batch:**	**300871**
Matrix:	**Water**	**Method:**	**EPA 351.2**	**Prep Method:**	**METHOD**

QC1024922 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Nitrogen, Total Kjeldahl	2.550	2.500	mg/L	102%		90-110

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	Lab ID: QC1024923	Batch: 300871
Matrix: Water	Method: EPA 351.2	Prep Method: METHOD

QC1024923 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Nitrogen, Total Kjeldahl	ND		mg/L	0.20	0.062	11/11/22	11/11/22

Type: Matrix Spike	Lab ID: QC1024924	Batch: 300871
Matrix (Source ID): Water (472516-005)	Method: EPA 351.2	Prep Method: METHOD

QC1024924 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	11.58	ND	12.50	mg/L	93%		90-110	2.5

Type: Matrix Spike Duplicate	Lab ID: QC1024925	Batch: 300871
Matrix (Source ID): Water (472516-005)	Method: EPA 351.2	Prep Method: METHOD

QC1024925 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	11.67	ND	12.50	mg/L	93%		90-110	1	20	2.5

Type: Matrix Spike	Lab ID: QC1024926	Batch: 300871
Matrix (Source ID): Water (472211-003)	Method: EPA 351.2	Prep Method: METHOD

QC1024926 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Nitrogen, Total Kjeldahl	13.90	ND	12.50	mg/L	111%	*	90-110	2.5

Type: Matrix Spike Duplicate	Lab ID: QC1024927	Batch: 300871
Matrix (Source ID): Water (472211-003)	Method: EPA 351.2	Prep Method: METHOD

QC1024927 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Nitrogen, Total Kjeldahl	13.12	ND	12.50	mg/L	105%		90-110	6	20	2.5

Type: Sample Duplicate	Lab ID: QC1023309	Batch: 300354
Matrix (Source ID): Water (472211-001)	Method: SM 2150B	

QC1023309 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:** QC1023545	**Batch:** 300431
Matrix: Drinking Water	**Method:** SM 4500-CL-G	

QC1023545 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Chlorine, Total Residual	ND		mg/L	0.10	0.026	11/04/22 18:07	11/04/22 18:07

Type: Lab Control Sample	**Lab ID:** QC1023546	**Batch:** 300431
Matrix: Drinking Water	**Method:** SM 4500-CL-G	

QC1023546 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Chlorine, Total Residual	1.089	1.000	mg/L	109%		80-120

Type: Sample Duplicate	**Lab ID:** QC1023547	**Batch:** 300431
Matrix (Source ID): Drinking Water (472077-001)	**Method:** SM 4500-CL-G	

QC1023547 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Chlorine, Total Residual	1.090	1.091	mg/L		0	20	1

Type: Sample Duplicate	**Lab ID:** QC1023407	**Batch:** 300384
Matrix (Source ID): Water (472211-001)	**Method:** SM 4500-H+ B	

QC1023407 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
pH	6.880	6.870	SU		0	20	1
Temperature	10.30	10.20	deg C		1	20	1

Type: Lab Control Sample	**Lab ID:** QC1024505	**Batch:** 300728
Matrix: Water	**Method:** SM 4500-NH3-G	

QC1024505 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Ammonia-N	2.272	2.500	mg/L	91%		80-120

Type: Blank	**Lab ID:** QC1024506	**Batch:** 300728
Matrix: Water	**Method:** SM 4500-NH3-G	

QC1024506 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Ammonia-N	ND		mg/L	0.10	0.045	11/09/22	11/09/22

ENTHALPY ANALYTICAL

Batch QC

Type: Matrix Spike | **Lab ID:** QC1024509 | **Batch:** 300728
Matrix (Source ID): Water (472211-002) | **Method:** SM 4500-NH3-G

QC1024509 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Ammonia-N	2.383	0.1798	2.500	mg/L	88%		80-120	1

Type: Matrix Spike Duplicate | **Lab ID:** QC1024510 | **Batch:** 300728
Matrix (Source ID): Water (472211-002) | **Method:** SM 4500-NH3-G

QC1024510 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Ammonia-N	2.404	0.1798	2.500	mg/L	89%		80-120	1	20	1

Type: Blank | **Lab ID:** QC1025635 | **Batch:** 301083
Matrix: Water | **Method:** SM 4500-P-B5-E

QC1025635 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Phosphorus	ND		mg/L	0.020	0.0054	11/18/22	11/18/22

Type: Lab Control Sample | **Lab ID:** QC1025636 | **Batch:** 301083
Matrix: Water | **Method:** SM 4500-P-B5-E

QC1025636 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Phosphorus	0.3920	0.4000	mg/L	98%		80-120

Type: Matrix Spike | **Lab ID:** QC1025637 | **Batch:** 301083
Matrix (Source ID): Water (472123-001) | **Method:** SM 4500-P-B5-E

QC1025637 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Phosphorus	1.075	0.3630	1.000	mg/L	71%	*	75-125	2.5

Type: Matrix Spike Duplicate | **Lab ID:** QC1025638 | **Batch:** 301083
Matrix (Source ID): Water (472123-001) | **Method:** SM 4500-P-B5-E

QC1025638 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Phosphorus	1.075	0.3630	1.000	mg/L	71%	*	75-125	0	20	2.5

ENTHALPY ANALYTICAL

Batch QC

Type: Lab Control Sample | **Lab ID:** QC1024112 | **Batch:** 300592
Matrix: Water | **Method:** SM 5310B

QC1024112 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Organic Carbon	8.998	10.00	mg/L	90%		80-120

Type: Blank | **Lab ID:** QC1024113 | **Batch:** 300592
Matrix: Water | **Method:** SM 5310B

QC1024113 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Organic Carbon	ND		mg/L	1.0	0.23	11/04/22	11/04/22

Type: Matrix Spike | **Lab ID:** QC1024114 | **Batch:** 300592
Matrix (Source ID): Water (472147-001) | **Method:** SM 5310B

QC1024114 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Total Organic Carbon	42.65	3.604	40.00	mg/L	98%		80-120	4

Type: Matrix Spike Duplicate | **Lab ID:** QC1024115 | **Batch:** 300592
Matrix (Source ID): Water (472147-001) | **Method:** SM 5310B

QC1024115 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Total Organic Carbon	43.70	3.604	40.00	mg/L	100%		80-120	2	20	4

Type: Sample Duplicate | **Lab ID:** QC1023310 | **Batch:** 300355
Matrix (Source ID): Water (472211-001) | **Method:** SM2120B

QC1023310 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Color	50.00	50.00	ColorUnits		0	20	1

Type: Sample Duplicate | **Lab ID:** QC1023186 | **Batch:** 300311
Matrix (Source ID): Water (472123-002) | **Method:** SM2130B

QC1023186 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Turbidity	55.80	51.40	NTU		8	20	2

ENTHALPY ANALYTICAL

Batch QC

Type: Blank	**Lab ID:** QC1023479	**Batch:** 300405
Matrix: Water	**Method:** SM2540C	**Prep Method:** METHOD

QC1023479 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Dissolved Solids	ND		mg/L	10		11/04/22	11/05/22

Type: Lab Control Sample	**Lab ID:** QC1023480	**Batch:** 300405
Matrix: Water	**Method:** SM2540C	**Prep Method:** METHOD

QC1023480 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Total Dissolved Solids	1,008	1000	mg/L	101%		90-110

Type: Sample Duplicate	**Lab ID:** QC1023481	**Batch:** 300405
Matrix (Source ID): Water (472251-001)	**Method:** SM2540C	**Prep Method:** METHOD

QC1023481 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Dissolved Solids	3,432	3466	mg/L		1	5	2

Type: Blank	**Lab ID:** QC1024032	**Batch:** 300560
Matrix: Water	**Method:** SM2540D	**Prep Method:** METHOD

QC1024032 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Total Suspended Solids	ND		mg/L	0.5		11/07/22	11/07/22

Type: Sample Duplicate	**Lab ID:** QC1024033	**Batch:** 300560
Matrix (Source ID): Water (472238-001)	**Method:** SM2540D	**Prep Method:** METHOD

QC1024033 Analyte	Result	Source Sample Result	Units	Qual	RPD	RPD Lim	DF
Total Suspended Solids	143.3	144.7	mg/L		1	5	6.7

Type: Blank	**Lab ID:** QC1023405	**Batch:** 300383
Matrix: Water	**Method:** SM5210B	**Prep Method:** METHOD

QC1023405 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Biochemical Oxygen Demand	ND		mg/L	3.0		11/04/22 08:10	11/09/22 14:50

ENTHALPY ANALYTICAL

Batch QC

Type: Lab Control Sample	**Lab ID:** QC1023406	**Batch:** 300383
Matrix: Water	**Method:** SM5210B	**Prep Method:** METHOD

QC1023406 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Biochemical Oxygen Demand	215.0	198.0	mg/L	109%		84.6-115.4

Type: Blank	**Lab ID:** QC1023493	**Batch:** 300414
Matrix: Water	**Method:** SM5540C	

QC1023493 Analyte	Result	Qual	Units	RL	MDL	Prepared	Analyzed
Surfactants (MBAS)	ND		mg/L	0.040	0.029	11/04/22 09:30	11/04/22 18:50

Type: Lab Control Sample	**Lab ID:** QC1023494	**Batch:** 300414
Matrix: Water	**Method:** SM5540C	

QC1023494 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Surfactants (MBAS)	0.9780	1.000	mg/L	98%		80-120

Type: Matrix Spike	**Lab ID:** QC1023495	**Batch:** 300414
Matrix (Source ID): Water (472211-004)	**Method:** SM5540C	

QC1023495 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Surfactants (MBAS)	0.9590	ND	1.000	mg/L	94%		80-120	1

Type: Matrix Spike Duplicate	**Lab ID:** QC1023496	**Batch:** 300414
Matrix (Source ID): Water (472211-004)	**Method:** SM5540C	

QC1023496 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Surfactants (MBAS)	0.9600	ND	1.000	mg/L	94%		80-120	0	20	1

* Value is outside QC limits
E Response exceeds instrument's linear range
ND Not Detected
NM Not Meaningful

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