

February 26, 2021

Ms. Alyx Karpowicz California Regional Water Quality Control Board San Francisco Bay Region 1515 Clay Street, Suite 1400 Oakland, CA 94612

Re: East Bay Municipal Utility District Bayside Groundwater Project, 2020 Annual Report, Order

No. R2-2007-0038

Dear Ms. Karpowicz:

In accordance with the Waste Discharge Requirements of Order No. R2-2007-0038, the East Bay Municipal Utility District (EBMUD) is submitting the enclosed 2020 annual self-monitoring report (SMR) for the Bayside Groundwater Project. There were no exceedances of the permit's water quality limits.

Table 1 includes construction details for the project's groundwater monitoring wells. Table 2 summarizes historical injected and recovered water volumes. No injection of treated drinking water in the Bayside Well occurred in 2020, and no extraction events took place in 2020.

The Self-Monitoring and Reporting Program (SMP) of Order No. R2-2007-0038 requires EBMUD to implement a phased approach for groundwater quality monitoring. Table 3 of the SMP tabulates groundwater quality monitoring well groups for phased monitoring. There are a total of four groups. Group 3 monitoring, consisting of the Bayside Well, MW-2S, MW-2D¹, MW-4, MW-5D, MW-6, and MW-7, was implemented beginning in 2014.

Table 3 summarizes groundwater level elevations and depths; Table 4 presents the vertical hydraulic gradients at MW-5S, MW-5I, and MW-5D; and Tables 5 and 6 contain current and historical groundwater quality results. Figure 1 is a well location map; Figures 2 and 3 present the groundwater elevation contours on August 1, 2020 and December 1, 2020, respectively; and Figure 4 shows TDS concentration contours. Attachment B contains figures showing the monitoring wells' groundwater elevation trends in 2020.

There were no exceedances of the permit's limits for TTHMs and HAAs.

¹ EBMUD uses slightly different well names than those used in the Permit. For example, "MW-2I" is used instead of "MW-2D" and "MW-9D" instead of "MW-9." EBMUD's well naming convention is used in this Report.

Ms. Alyx Karpowicz February 26, 2021 Page 2

CERTIFICATION

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

If you have any questions, please contact me at (510) 287-0412 or David Behnken, Environmental Health and Safety Specialist II, at (510) 287-0327.

Sincerely,

Chandra Johannesson

Manager of Environmental Compliance



February 26, 2021 SENT VIA: EMAIL

Mr. David Behnken Environmental Health and Safety Specialist II East Bay Municipal Utility District 375 11th Street Oakland, CA 94607

Subject: EBMUD Bayside Groundwater Project, 2020 Annual Report,

Waste Discharge Requirements Order No. R2-2007-0038

Dear Mr. Behnken:

Larry Walker Associates (LWA) has prepared this 2020 Annual Report (Report) on behalf of the East Bay Municipal Utility District (EBMUD) for the Bayside Groundwater Project (Project) located in Alameda County. LWA has prepared this Report in accordance with the Self-Monitoring and Reporting Program (SMRP) of Waste Discharge Requirements Order No. R2-2007-0038 (Permit), which was adopted by the San Francisco Regional Water Quality Control Board (Regional Board) on May 9, 2007 (Regional Board, 2007).

The Project consists of the Bayside Well and a number of additional monitoring wells constructed in the vicinity of the Bayside Well. Depth to groundwater was monitored in the Bayside Well and associated monitoring well network during 2020. Groundwater samples were collected on August 5, 10, 11, 13, 25, and 26, 2020, for analytical testing. Groundwater elevations and analytical results are provided in this Report, along with results from previous years in accordance with the SMRP, for evaluation of long-term trends.

This Report addresses the following topics:

- Project Overview
- Regulatory Requirements
- Injection and Recovery Activities
- Monitoring and Sampling Activities
- Groundwater Elevations and Flow Directions
- Groundwater Quality Results
- Conclusions

PROJECT OVERVIEW

The Project site is located in a predominantly industrial area within unincorporated portions of the City of San Lorenzo and the City of San Leandro. The Bayside Well is located at 2600 Grant Avenue in San Lorenzo. The Project area is bounded by residential communities to the north and east, and the San Francisco Bay about a half-mile to the west.

The Bayside Well is an Aquifer Storage and Recovery (ASR) well designed, constructed, and operated for injection of treated drinking water from EBMUD's distribution system into the South East Bay Plain Groundwater Basin for aquifer storage during wet years and, later, for recovery as a source of supplemental drinking water supply for EBMUD during dry years. No injection of treated drinking water took place 2020. No extraction of water occurred during 2020.

The Bayside Well was constructed with 18-inch diameter stainless steel casing and is screened from 520 feet below ground surface (bgs) to 650 feet bgs. The monitoring well network consists of 17 monitoring wells constructed to various depths (**Figure 1**). Well construction details are summarized in **Table 1**. Additional background information on the Project is provided in the Permit.

REGULATORY REQUIREMENTS

The SMRP requires groundwater level monitoring in 13 of the 17 Project monitoring wells. The 13 Project wells monitored during this reporting period were MW-1, MW-2S, MW-2I, MW-3, MW-4, MW-5S, MW-5I, MW-5D, MW-6, MW-7, MW-9D, MW-10I, and MW-10D¹. After the first year of monitoring in 2009, groundwater levels are required to be monitoring on an hourly basis in 11 of the 13 wells listed above. The exceptions to this monitoring frequency are MW-4 and MW-6, where groundwater level monitoring is required to be performed quarterly only.

To address the primary groundwater quality concern of introducing disinfection by-products (DBPs) into the groundwater basin, the SMRP requires EBMUD to implement a phased approach for sampling and monitoring groundwater quality in subsets of the Project monitoring wells. Each phase is successive and depends on certain SMRP triggers, generally related to the location of the injected water front (i.e. leading edge of the injected water). The SMRP specifies the following phased approach consisting of four groups of monitoring wells:

- Initial monitoring in Group 1 wells (Bayside Well, MW-2S, MW-2I, MW-4, and MW-10D²) is required to start three months prior to the start of Project operations and to continue on an annual basis until Group 2 monitoring is triggered.
- Monitoring of Group 2 wells (Group 1 wells plus MW-6 but excluding MW-10D) would begin once the injected water front reaches MW-4 and would continue on an annual basis until Group 3 monitoring is triggered.

¹ EBMUD uses slightly different well names than those used in the Permit. For example, "MW-2I" is used instead of "MW-2D" and "MW-9D" instead of "MW-9." EBMUD's well naming convention is used in this Report.

² Group 1 monitoring included limited monitoring at MW-10D. Specifically, the SMRP requires monitoring of MW-10D only once in the beginning of the Group 1 monitoring phase.

- Monitoring of Group 3 wells (Group 2 wells plus MW-5D and MW-7) would begin once
 the injected water front reaches MW-6 and would continue on an annual basis until
 Group 4 monitoring is triggered.
- Monitoring of Group 4 wells (Group 3 wells plus MW-10D) would begin with the detection of injected water at MW-5D or MW-7, or 15 years after initiating Project operations, whichever is earlier.

Water quality parameters are required to be measured annually per the parameters and test methods listed in Table 4 of the SMRP. These parameters include general water quality parameters, standard minerals, and DBPs. The Permit specifies water quality limits for total trihalomethanes (TTHMs) at 80 micrograms per liter (μ g/L), and haloacetic acids (HAAs) at 60 μ g/L. The individual analytes are discussed below in the Groundwater Quality Results section.

The SMRP requires the submission of data from the Project's monitoring well network to the Regional Board in an annual report. Annual reports, due by March 1 of the following year, are required to include the following items, per Part A.4 of the SMRP:

- A table of water injection and recovery data, including the cumulative total volume injected and recovered since Project inception.
- Maps of well locations, groundwater elevation contours, extent of the injected water front, and extent of dissolved water quality parameters (isoconcentration maps).
- A table of location and construction details for the wells.
- A table of current groundwater depths, elevations, and horizontal and vertical gradients.
- A table of current and historical (past five years) water quality results for the wells.
- A discussion of field and laboratory results that includes conclusions, recommendations, and data anomalies.

INJECTION AND RECOVERY ACTIVITIES

No injection of treated drinking water in the Bayside Well took place in 2020 and no extractions from the Bayside Well occurred in 2020. The cumulative volumes of injected and recovered water since the Project inception in 2009 are shown in **Table 2**.

MONITORING AND SAMPLING ACTIVITIES

The SMRP requires groundwater level monitoring on an hourly basis in the applicable monitoring wells with the exception of MW-4 and MW-6, for which quarterly groundwater level monitoring is required. In early 2014, EBMUD installed new dedicated pressure transducers in the wells to collect hourly groundwater level data. Hourly groundwater level data were collected from January through December 2020.

The SMRP also requires groundwater quality monitoring following a phased approach. In 2013, EBMUD initiated monitoring of Group 2 wells, which added MW-6 to the annual monitoring well network. In 2015, EBMUD initiated monitoring of Group 3 wells, which added MW-5D and MW-7 to the annual monitoring well network, in response to the detection of chlorine residual and the HAA, dibromoacetic acid, at MW-6, as detailed in the 2013 Annual Report.

EBMUD collected the 2020 groundwater samples from the required monitoring wells. The required annual water quality sampling was performed on August 5, 10, 11, 13, 25, and 26, 2020.

Submersible pumps fitted with new tubing were used to purge and sample groundwater monitoring wells MW-2S, MW-2I, MW-4, MW-5D, MW-6 and MW-7. The Bayside Well was purged using the dedicated downhole turbine pump with the sample collected from a spigot at the wellhead. Purge water was disposed of on permeable ground adjacent to monitoring wells. Purge water from the Bayside Well was pumped to an onsite holding tank and eventually discharged to Oro Loma Sanitary District (OLSD) under an 'over the counter' permit per OLSD Ordinance No. 35-16, including Attachment A to Resolution No. 3627. No surface water discharges occurred during the 2020 reporting period.

Groundwater monitoring and sampling were completed using the following procedures:

- 1. Measured static water level within each well and calculated three well casing volumes required for purging in accordance with United States Environmental Protection Agency (USEPA) groundwater sampling protocols.
- 2. Purged the well until three well casing volumes were removed.
- 3. Measured field water quality parameters (pH, specific conductance, and temperature) periodically during purging.
- 4. Collected samples in containers with appropriate preservatives in accordance with USEPA sampling protocols for individual constituents.
- 5. Measured residual chlorine immediately after sample collection.
- 6. Transported samples to EBMUD's state-certified laboratory in a cooler under chain of custody for analytical testing.

Attachment A provides well purge logs, including the static water level, purge volumes, and field parameter measurements.

GROUNDWATER ELEVATIONS AND FLOW DIRECTIONS

Static depth to groundwater levels measured prior to well purging and sampling in 2020 are summarized in **Table 3**, along with calculated groundwater elevations. The calculated groundwater elevations are based on the reference elevations noted in **Table 1**. The historical static water levels and groundwater elevations are also provided in **Table 3**.

Groundwater elevations derived from the pressure transducers installed in May 2014 and corrected for barometric pressures are plotted by well for January through December 2020 (**Attachment B**). These elevations were calculated by EBMUD staff. It should be noted that MW-7, which was damaged in prior years and unable to generate water quality samples, was repaired on December 6, 2018, and modified with a flush mount surface, resulting in a groundwater elevation shift of approximately -2.78 feet.

Groundwater elevation contour maps were generated using groundwater elevation data collected at specific times using the pressure transducers. Groundwater elevation contours for August 1, 2020, corresponding to a low tide in San Francisco Bay, are shown on **Figure 2**. Groundwater elevation contours for December 1, 2020, corresponding to a high tide in San Francisco Bay, are shown on **Figure 3**. As shown on **Figures 2** and **Figure 3**, the groundwater flow direction was

primarily to the north-northeast at both low tide (Figure 2) and high tide (Figure 3). The horizontal hydraulic gradients were variable with lower gradients generally further from the bay and higher gradients closer to the bay.

Groundwater elevations during low tide ranged from -17.55 feet above mean sea level (amsl) to -12.00 feet amsl for the five wells shown on **Figure 2**. Groundwater elevations during high tide ranged from -17.86 feet amsl to -11.39 feet amsl at the same wells (**Figure 3**).

Vertical hydraulic gradients were calculated based on groundwater elevations and the distance to the center of the screened interval specified in **Table 4** for the nested wells MW-5S, MW-5I, and MW-5D. Specifically, vertical gradients were calculated for a low tide using groundwater elevation data from around 5:00 on August 1, 2020, and for a high tide using groundwater elevation data from around 11:00 on December 1, 2020. The calculated vertical gradients for these dates, including supporting data for the calculations, are presented in **Table 4**. The overall vertical gradient under both conditions was downward at approximately 0.037 feet per foot. These results are consistent with the vertical gradients reported in the 2019 Annual Report.

GROUNDWATER QUALITY RESULTS

The 2020 analytical results are included in the following tables, along with historical water quality results for the previous six years (2014 through 2019):

- **Table 5** includes data for general water quality parameters (e.g. pH, chlorine residual, total dissolved solids (TDS), ammonia, nitrate, chloride, manganese, and iron) and standard minerals (e.g. calcium, magnesium, potassium, sodium, sulfate, total alkalinity [including alkalinity series], and hardness).
- **Table 6** includes data for DBPs (e.g. TTHMs and HAAs including their individual components).

Copies of the analytical laboratory reports for the 2020 water quality data are provided in **Attachment C**.³ The laboratory report for the Bayside Well also includes data collected by EBMUD for additional constituents beyond those presented in **Table 5** and **Table 6**. These results are for "Title 22" parameters that would be of interest in a future water system permit application to the State.

For wells with pre-2020 data (Bayside Well, MW-2S, MW-2I, MW-4, MW-5D, MW-6 and MW-7), the 2020 water quality results summarized in **Table 5** are generally consistent. A number of parameters detected in MW-2S have significantly higher concentrations than the same parameter detected in the other monitoring wells and calcium in MW-2S was noted to be abnormally low in 2020 compared to historical data. Monitoring well MW-2S is a much shallower well and may be affected by seawater intrusion.

For the 2020 groundwater quality results summarized in **Table 5**, TDS has been used as a representative constituent to evaluate overall groundwater quality conditions. The isoconcentration contours shown on **Figure 4** are based on TDS concentrations for deep

³ The laboratory reports in Attachment C include results for additional parameters beyond those required by the SMRP. EBMUD collected this information for reasons unrelated to the Permit and SMRP. These data are not discussed in this Report.

monitoring wells, including the Bayside Well, MW-4, MW-5D, MW-6 and MW-7. The isoconcentration contours indicate the lowest concentration of 160 milligrams per liter (mg/L) occurs at the Bayside Well with increasing TDS concentrations in a northerly direction (i.e. further inland). The highest TDS concentration of 460 mg/L was detected at well MW-5D. TDS concentrations increase in a northeasterly direction away from the Bayside Well. The TDS concentration trend shown on **Figure 4** is similar in shape and direction to the northeasterly groundwater gradients (**Figure 2** and **Figure 3**). Comparison between Figures 2, 3 and 4 shows that TDS concentrations increase hydraulically downgradient from the Bayside Well.

The current DBPs data summarized in **Table 6** are consistent with the historical groundwater monitoring results. A few analytes were above the method detection limits (MDLs) and the combined DBPs as HAA(5),⁴ HAA(9),⁵ and TTHMs are within the range of historical results in the monitoring wells. Results are notable for the Bayside Well with elevated results for chloroform and bromodichloromethane that are comparable to results in 2018. The data indicates there are no exceedances of the Permit's water quality limits for HAAs and TTHMs at 60 μg/L and 80 μg/L, respectively.

CONCLUSIONS

EBMUD conducted the 2020 groundwater monitoring for the Bayside Groundwater Project site in accordance with the Self-Monitoring and Reporting Program of Waste Discharge Requirements Order No. R2-2007-0038. EBMUD will continue to implement groundwater monitoring for the Group 3 wells during 2021. The 2021 Annual Report will be submitted to the Regional Board by March 1, 2022.

⁴ HAA(5) includes the sum of dibromoacetic, dichloroacetic, monobromoacetic, monochloroacetic, and trichloroacetic acids.

⁵ HAA(9) includes the sum of all nine haloacetic acids.

Prepared for

East Bay Municipal Utility District

February 2021

The material and data in this report, including all attachments and supplemental information, were prepared under the supervision and direction of the undersigned. The information submitted is, to the best of my knowledge, true, accurate, and complete.



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Alina Constantinescu

P.E. C72181



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LIST OF ATTACHMENTS

- Attachment A. Groundwater Purging Logs
- Attachment B. Groundwater Elevation Trends for Monitoring Wells
- Attachment C. Analytical Lab Reports for 2020 Water Quality Monitoring

LIST OF REFERENCES

1. San Francisco Regional Water Quality Control Board (Regional Board). Order No. R2-2007-0038. Waste Discharge Requirements for East Bay Municipal Utility District, Bayside Groundwater Project, San Lorenzo, Alameda County. Adopted May 9, 2007.

Table 1. C	Groundwater	Monitoring	Well	Construction Details
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Well ID	Latitude	Longitude	Address	City	Completion Date	Drilled Depth, feet bgs ^(a)	Casing Depth, feet bgs	Depth to Top of Perforation, feet bgs	Depth to Bottom of Perforation, feet bgs	Casing Diameter, inches	Reference Elevation, feet amsl ^(b)	Reference Location on Well
MW-1						665	650	520	640	2	8.71	Top of steel casing
MW-2S	37° 40' 4.8"	122° 9' 25.2"	2600 Grant Avenue			210	60	40	60	2	9.90	Top of stool againg
MW-2I ^(c)			2000 Grant Avenue			210	200	160	190	2	9.90	Top of steel casing
MW-3	37° 40' 4.8"	122° 9' 28.8"				665	660	520	650	2	8.12	Top of steel casing
MW-4	37° 40' 11.6"	122° 9' 28.8"	2575 Grant Avenue			705	650	520	650	2	8.96	Top of steel rim
MW-5S	37° 40' 34.4"	122° 9' 06.6"	2006 Via Barrett		Sep. 2008	460	210	200	210	2	42.00	Cool of voult lid at a catally adea
MW-5I	37° 40' 34.4"	122° 9' 06.6"	2005 Via Barrett	San	Sep. 2008	460	325	315	325	2	13.88	Seal of vault lid at easterly edge
MW-5D	37° 40' 34.4"	122° 9' 06.6"	2007 Via Barrett	Lorenzo	Feb. 2001	1,025	640	500	630	4	13.76	Top of casing at northerly edge
MW-6	37° 40' 07"	122° 9' 04.5"	15600 Worthley		Nov. 2000	1,000	655	480	650	4	9.46	Top of casing at easterly edge
MW-7	37° 39' 56.5"	122° 8' 44.2"	Western tip of San Lorenzo Park		Dec. 2018	972	680	510	630	4	4.64	Top of vault lid ^(e)
MW-8D	37° 43' 04"	122° 11' 50.3"	1970 Davis Street			910	490	420	480	2	14.76	Top of steel rim
MW-9S					Jan. 2008	460	120	110	120	2		
MW-9I	37° 41' 11"	122° 6' 46"	589 E. Lewelling Avenue		Jan. 2008	460	210	200	210	2	54.39	Seal of vault lid at westerly edge
MW-9D ^(d)					Jan. 2008	460	335	325	335	2		
MW-10S					Sep. 2008	680	120	100	120	2		
MW-10I	37° 41' 19"	122° 9' 43"	15526 Wick Boulevard	San Leandro	Sep. 2008	680	360	340	360	2	11.76	Seal of vault lid at easterly edge
MW-10D				Leanuro	Sep. 2008	680	610	590	610	2		

⁽a) bgs = below ground surface
(b) amsl = above Mean Sea Level
(c) Well MW-2I is referred to in the Permit as "MW-2D."
(d) Well MW-9D is referred to in the Permit as "MW-9."
(e) Well surface completion was modified to fix the monitoring well. The difference between the top of casing reference point and current flush mounted vault was measure to be 2.78 feet, which will be used until MW-7 is resurveyed.

Table 2. Histo	Table 2. Historical Injected and Recovered Water Volumes												
Year	Injected Volume, gallons	Recovered Volume, gallons											
2009	445,000	4,545,000											
2010	0	113,000,000											
2011	28,432,401	0											
2012	0	0											
2013	0	0											
2014	0	0											
2015	0	0											
2016	0	0											
2017	1,310,000	0											
2018	8,340,000	0											
2019	8,390,000	0											
2020	0	0											
Total	46,917,401	117,545,000											

Measurement			Grour	ndwater Ele	vation, ft ar	nsl			Depth to Groundwater, ft									
Date	Bayside	MW-1 ^(a)	MW-2S	MW-2I	MW-4	MW-6	MW-5D	MW-7	Bayside	MW-1	MW-2S	MW-2I	MW-4	MW-6	MW-5D	MW-7		
12/8/08			0.99		-4.07	(b)					8.78 ^(c)		12.68 ^(c)					
12/9/08		-5.06		1.09						13.74 ^(c)		8.73 ^(c)						
12/14/09					-3.75								12.71					
12/15/09			0.95	1.44							8.95	8.46						
12/8/10	-7.22		1.71	0.25	-7.45				15.6		8.19	9.65	16.41					
12/21/11		-4.16	1.12	3.59	-4.17					12.87	8.78	6.31	13.13					
1/5/12		-3.94	1.04	6.24	-3.97					12.65	8.86	3.66	12.93					
12/13/12		-4.49	2.38	1.72	-4.16	-4.52				13.20	7.52	8.18	13.12	13.98				
12/18/13		-4.06	1.59	0.37	-6.68	-6.46				12.77	8.31	9.53	15.64	15.92				
12/12-12/17/14		-6.54	2.75	0.18	-6.01	-5.99	-5.76	(d)		15.25	7.15	9.72	14.97	15.45	19.52	(d)		
11/16-12/15/15		-5.48	2.90	0.32	-4.94	(d)	-5.87	(d)		14.19 ^(f)	7.00	9.58	13.9	(e)	19.63	(d)		
12/21-12/27/16		-2.00	2.90	2.88	-1.95	-1.96	-1.96	(d)		10.71	7.00	7.02	10.91	11.42	15.72	(d)		
12/19-12/20/17		-5.05	1.86	-1.07	-1.42	-1.80	-1.47	(d)		13.76	8.04	10.97	10.38	11.26	15.23	(d)		
12/5-12/19/18		-11.12	1.62	-2.17	-2.36	-2.11	-2.14	-4.30		19.83	8.28	12.07	11.32	11.57	15.90	8.94		
10/8-10/24/19		-12.43	1.92	-3.39	-2.06	-3.39	-3.06	-5.98		21.14	7.98	13.29	11.02	12.85	16.82	10.62		
8/5-8/26/20		-12.36	3.78	-3.32	-3.57	-2.65	-3.55	-8.93		21.07	6.12	13.22	12.53	12.11	17.31	13.57		

⁽a) Groundwater elevation is averaged over the measurement date period from tranducer data, and used to calculate the depth to groundwater using the surveyed elevation.

⁽b) Gray shaded cells indicate that no monitoring was required for the well at that time period, reflecting the transition between monitoring groups.

⁽c) Applicable well reference elevations are different from those in Table 1.

⁽d) Well MW-7 was damaged in 2012, and accurate data collection was not feasible until 2016. In 2017, a sample wasn't collected because the pump EBMUD owns was found to be incompatible with the well.

⁽e) Well MW-6 was not monitored in late 2015 due to a pump equipment failure.

⁽f) Depth to Groundwater for MW-1 was incorrectly reported in the 2015 Annual Report as -13.56 ft.

	Table 4. Calculated Vertical Hydraulic Gradients for Low Tide and High Tide in San Francisco Bay														
Nested Well	Measurement Date and Time	Screened Interval, ft	Center of Screened Intervals, ft bgs	Groundwater Elevation, ft amsl	Shallow to Intermediate Vertical Gradient, ft/ft	Intermediate to Deep Vertical Gradient, ft/ft	Shallow to Deep Vertical Gradient, ft/ft	Vertical Gradient Direction							
Low Tide															
MW-5S	8/1/2020 @ 05:00	200 - 210	205	-3.95	0.110										
MW-5I	8/1/2020 @ 05:00	315 - 325	320	-16.64	0.110	0.004	0.037	downward							
MW-5D	8/1/2020 @ 05:00	500 - 630	575	-17.55		0.004									
High Tide															
MW-5S	12/1/2020 @ 11:00	200 - 210	205	-3.75	0.120										
MW-5I	12/1/2020 @ 11:00	315 - 325	320	-17.50	0.120	0.001	0.038	downward							
MW-5D	12/1/2020 @ 11:00	500 - 630	575	-17.86		0.001		ļ							

	Table 5. Current and Historical Groundwater Quality Results for General Water Quality Parameters and Standard Minerals ^(a)																	
			Ge	eneral Wate	r Quality Param	neters							Star	ndard Minerals	3			
		Chlorine														Alkalinity (as CaCO3)	
Sample		Residual,	TDS,	Ammonia,	Nitrate as N,	Chloride,	Manganese,	Iron,	Calcium,	Magnesium,	Potassium,	Sodium,	Sulfate,	Hardness,	Total,	Hydroxide,	Carbonate,	Bicarbonate,
Date	рН	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	μg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Bayside Well			_			_												
12/17/2014	8.19	ND	130	0.42	<0.009	15	23.0	52.3	14.7	3.88	1.07	28.0	15	70	69	<0.1	0.99	68
11/16/2015	7.68	0.10	75	<0.3	<0.009	15	22.3	215	13.5	3.64	1.01	23.3	16	48	70	<0.1	<0.1	70
12/7/2016	8.09	0.10	140	0.11	<0.009	17	16.2	70.2	16.4	4.15	1.13	27.1	18	55	68	<0.1	<0.1	68
12/5/2017	7.91	ND	150	0.25	<0.040	16	12.9	66.5	16.5	4.17	1.19	25.0	21	62	68	<0.1	<0.1	68
12/5/2018	7.93	<0.02	170	0.280	0.12	13	13.2	946	23.2	7.66	1.34	24.0	32	94	89	<0.10	<0.10	89
10/8/2019	6.85	<0.02	190	<0.25	<0.035	15	17.0	75.6	21.5	6.65	1.30	24.7	34	87	95	<0.10	<0.10	95
8/25/2020	8.10	0.20	160	<0.25	0.20	13	11.7	269	19.9	6.32	1.19	21.5	23	84	88	<0.10	<0.10	88
MW-2S	1	T		1	1	ı	1		ı	_	I		1			<u> </u>		·
12/13/2014	6.57	0.20	83,000	<0.3	23(b)	39,000	36,900	<31.2	1,230	2,680	462	22,000	6,100	17,000	380	<0.1	0.13	380
12/10/2015	6.85	ND	76,000	<0.3	27	41,000	21,900	76.8	1,250	3,040	401	20,500	5,200	16,000	390	<0.1	<0.1	390
12/27/2016	6.73	0.07	77,000	0.34	<0.65	42,000	38,100	<62.4	1,330	3,150	510	20,600	5,700	16,000	390	<0.1	<0.1	390
12/19/2017	6.27	ND	73,000	1.23	<11	41,000	33,200	<62.4	1,210	2,800	501	21,200	5,500	17,000	390	<0.1	<0.1	390
12/11/2018	6.66	1	74,000	0.952	<1	41,000	33,200	<52.0	1,150	3,090	439	23,400	5,500	16,000	400	<0.10	<0.10	400
10/22/2019	6.72	0.4	82,000	0.760	<35	42,000	37,400	<54.1	1,240	2,870	405	20,700	5,500	16,000	400	<0.10	<0.10	400
8/11/2020	6.62	0.3	76,000	<0.25	<18	43,000	33,900	<108	280	2,710	495	20,500	5,600	17,000	410	<0.10	<0.10	410
MW-2I		1		1	T	T	T		I	T	I		T	T - T		T .		
12/12/2014	7.90	ND	520	1.1	<0.009	81	98.7	213	14.6	12.6	5.33	153	31	94	310	<0.1	2.3	310
12/15/2015	7.75	ND	490	0.56	0.044	59	105	177	14.4	12.5	6.73	156	34	90	300	<0.1	<0.1	300
12/27/2016	8.10	0.02	540	0.28	0.18	84	111	98.0	15.2	13.2	6.16	148	30	94	320	<0.1	<0.1	320
12/19/2017	7.69	0.05	630	1.0	0.18	150	139	1,220	17.8	15.9	7.61	193	13	130	350	<0.1	<0.1	350
12/11/2018	7.83	<0.02	620	0.280	<0.019	120	124	1,260	15.8	14.2	5.87	184	22	110	330	<0.10	<0.10	330
10/9/2019	7.67	0.20	690	<0.25	<0.07	150	123	458	17.8	15.7	5.82	191	12	120	360	<0.10	<0.10	360
8/26/2020	7.75	0.60	710	<0.25	<0.07	160	138	B 422	19.4	17.3	7.06	B 207	7.3	64	380	<0.10	<0.10	380
MW-4		1		T	T	I	T			T	l 1		T	T T		T .		
12/16/2014	8.22	0.10	450	<0.3	0.028	56	239	33.7	32.2	12.8	2.72	113	39	130	270	<0.1	4.2	270
12/8/2015	7.98	ND	420	<0.3	0.039	56	215	32.5	28.8	11.7	3.08	106	41	130	250	<0.1	<0.1	250
12/27/2016	8.14	ND	440	0.34	0.098	59	222	31.6	31.4	12.6	2.76	108	42	120	260	<0.1	<0.1	260
12/20/2017	7.55	ND	410	0.25	0.091	57	196	24.4	27.9	10.7	2.69	107	40	130	240	<0.1	<0.1	240
12/11/2018	7.73	<0.02	380	0.280	<0.019	48	192	39.1	24.6	9.01	2.12	102	37	100	220	<0.10	<0.10	220
10/9/2019	7.63	0.20	420	<0.25	<0.070	53	199	32.2	26.7	9.98	2.18	97.1	40	120	240	<0.10	<0.10	240
8/11/2020	7.89	0.20	390	<0.25	<0.035	49	179	21.5	23.7	8.98	2.25	92.3	38		230	<0.10	<0.10	230
MW-5D	7.00	0.40	400					400	40.0	40.0	0.50	400	10	150	200	.0.4	2.22	200
12/16/2014	7.00	0.40	490	<0.3	<0.009	96	241	180	42.8	10.8	2.59	123	46	150	230	<0.1	0.22	230
11/18/2015	7.53	0.20	450	<0.3	<0.009	82	175	46.4	35.6	9.06	2.30	112	49	140	240	<0.1	<0.1	240
12/21/2016	7.68	0.02	470	<0.3	<0.013	84	195	34.6	39.0	9.74	2.34	130	49	130	230	<0.1	<0.1	230
12/19/2017	7.55	ND	410	<0.25	<0.091	57	196	24.4	27.9	10.70	2.69	107	40	130	240	<0.1	<0.1	240
12/10/2018	7.57	<0.02	460	0.280	0.19	79	197	270	35.6	9.13	1.96	112	46	130	230	<0.10	<0.10	230
10/10/2019	7.10	0.10	460	<0.25	<0.070	81	188	58.0	35.2	8.58	1.79	107	51	140	240	<0.10	<0.10	240
8/10/2020	7.56	0.60	460	<0.25	<0.035	84	179	197.0	32.3	8.25	2.20	100	50	140	230	<0.10	<0.10	230

			G	eneral Wate	r Quality Param	neters			Standard Minerals										
		Chlorine														Alkalinity ((as CaCO3)		
Sample		Residual,	TDS,	Ammonia,	Nitrate as N,	Chloride,	Manganese,	Iron,	Calcium,	Magnesium,	Potassium,	Sodium,	Sulfate,	Hardness,	Total,	Hydroxide,	Carbonate,	Bicarbonate,	
Date	pН	mg/L	mg/L	mg/L	mg/L	mg/L	μg/L	μg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
MW-6																			
12/13/2014	7.92	0.10	430	<0.3	<0.009	58	209	25.4	34.1	8.89	2.39	110	56	120	230	<0.1	1.8	230	
12/10/2015	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)	
12/27/2016	7.72	ND	400	0.34	0.17	68	192	21.0	35.6	8.25	3.00	87.7	40	120	210	<0.1	<0.1	210	
12/20/2017	7.37	0.01	450	<0.3	<0.19	83	164	130.0	34.2	8.56	2.39	99	49	150	230	<0.1	<0.1	230	
12/12/2018	6.9	0.10	410	0.280	<0.019	54	234	43.4	30.5	7.10	3.56	97.2	46	110	230	<0.10	<0.10	230	
10/11/2019	7.17	0.50	400	<0.25	<0.070	54	171	14.9	29.2	7.34	1.91	98.5	47	110	230	<0.10	<0.10	230	
8/13/2020	7.40	0.30	420	<0.25	<0.035 ^(d)	54	176	20.5	31.2	7.54	2.06	102.0	48	120	230	<0.10	<0.10	230	
MW-7		-			-				•	-				-		-	-		
2016	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	
2017	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	
12/19/2018	8.32	0.30	470	0.280	<0.095	86	236	164	36.1	8.97	2.46	118	50	130	230	<0.10	<0.10	230	
10/24/2019	7.49	0.10	470	<0.25	0.33	91	207	26.4	32.8	8.44	1.77	108	54	140	230	<0.10	<0.10	230	
8/5/2020	7.06	0.20	500	<0.25	<0.088	93	237	37.2	36.6	9.38	2.15	121	53	140	240	<0.10	<0.10	240	

^(a) Symbols and data qualifiers are described as follows:

[&]quot;<" or "ND" indicates non-detect (ND) results, with the Method Detection Limit (MDL) shown as the value following "<".

[&]quot;B" preceding a value indicates that the parameter was detected in the laboratory blank associated with the reported result.

[&]quot;E" preceding a value indicates a detected results with a value reported as "estimated" between the MDL and the Reporting Limit.

[&]quot;--" indicates that no result was reported for the analyte on the corresponding sample date.

^{b)} The analytical laboratory report notes that the analysis for nitrate exceeded the hold time for the MW-2S sample collected 12/13/2014.

^(c) Well MW-6 was not sampled in 2015 due to pump equipment failure.

⁽d) The analytical laboratory report notes that the analysis for nitrate exceeded the hold time for the MW-6 sample collected 8/13/2020.

⁽e) Well MW-7 was not sampled in 2016 and 2017 because the pump EBMUD owns was found to be incompatible with the well.

Table 6. Current and Historical Groundwater Quality Results for Disinfection Byproducts ^(a)																
					Haloa	cetic Acids								Trihalomethan	es	
Sample Date	HAA(5), ^(b) μg/L	ΗΑΑ(9), ^(c) μg/L	Bromochloro- acetic Acid, µg/L	Bromodichloro- acetic Acid, µg/L	Chlorodibromo- acetic Acid, µg/L	Dibromo- acetic Acid, µg/L	Dichloro- acetic Acid, µg/L	Monobromo- acetic Acid, μg/L	Monochloro- acetic Acid, μg/L	Tribromo- acetic Acid, μg/L	Trichloro- acetic Acid, µg/L	TTHMs, ^(d) µg/L	Chloroform, µg/L	Bromodichloro- methane, µg/L	Dibromochloro- methane, μg/L	Bromoform, μg/L
Bayside Well																
12/17/2014	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.89	0.45	<0.079	<0.13	<0.23
11/16/2015	1.7	<3.2	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	0.36	<0.98	0.37	<0.145	<0.20	<0.27
12/7/2016	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<4.95	4.4	0.19	<0.13	<0.23
12/5/2017	1.6	<3.1	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	0.26	<15.56	14	1.2	<0.13	<0.23
12/5/2018	<10.4	<12.8	<0.15	1.2	<0.31	1.1	3.4	<0.29	<0.65	<0.72	5.0	<35.22	29.71	3.56	1.65	<0.3
10/8/2019	<1.5	3.3	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	0.99	<0.17	10.51	9.14	0.67	<0.4	<0.3
8/25/2020	1.6	3.6	<0.16	<0.20	1.20	<0.28	<0.25	<0.25	<0.25	<0.35	0.61	30.82	28.26	1.86	<0.4	<0.3
MW-2S							_				_			_	T	
12/13/2014	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/10/2015	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/27/2016	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/19/2017	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/11/2018	<1.5	<3.5	<0.15	0.75	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<1.50	<0.4	<0.4	<0.4	<0.3
10/22/2019	<1.5	3.1	<0.15	E 0.36	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<1.50	<0.4	<0.4	<0.4	<0.3
8/11/2020	<1.2	<1.8	<0.16	<0.20	<0.22	<0.28	<0.25	<0.25	<0.25		<0.17	<1.50	<0.4	<0.4	<0.4	<0.3
MW-2I		T		1	1					1	T	T		1		
12/12/2014	ND	3.4	0.50	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	J <0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/15/2015	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/27/2016	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/19/2017	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/11/2018	<1.6	<3.5	<0.15	0.73	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	E 0.22	<1.50	<0.4	<0.4	<0.4	<0.3
10/9/2019	<1.5	<3.3	<0.15	<0.57	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<1.50	<0.4	<0.4	<0.4	<0.3
8/26/2020	<1.2	<2.1	<0.16	<0.20	<0.22	<0.28	<0.25	<0.25	<0.25	<0.35	<0.17	1.83	0.73	<0.4	<0.4	<0.3
MW-4	T	T		T					T		T	T		T		I
12/16/2014	<1.6	<3.1	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	0.72	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/8/2015	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/27/2016	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/20/2017	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/11/2018	<1.6	<3.1	<0.15	<0.31	<0.31	E 0.27	<0.18	<0.29	<0.65	<0.72	E 0.21	<1.50	<0.4	<0.4	<0.4	<0.3
10/9/2019	<1.5	<3.0	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<1.50	<0.4	<0.4	<0.4	<0.3
8/11/2020	<1.2	<1.8	<0.16	<0.20	<0.22	<0.28	<0.25	<0.25	<0.25		<0.17	<1.50	<0.4	<0.4	<0.4	<0.3
MW-5D	ND	ND	.0.45	.0.04	.0.04	.0.05	.0.40	.0.00	-0.05	.0.70	.0.47	.0.000	10.47	.0.070	20.40	.0.00
12/16/2014	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
11/18/2015	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.170	<0.17	<0.079	<0.13	<0.23
12/21/2016	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/19/2017	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/10/2018	<1.5	<3.1	E 0.19	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<1.50	<0.4	<0.4	<0.4	<0.3
10/10/2019	<1.5	<3.1	E 0.18	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<1.50	<0.4	<0.4	<0.4	<0.3
8/10/2020	<1.2	<1.8	<0.16	<0.20	<0.22	<0.28	<0.25	<0.25	<0.25		<0.17	<1.50	<0.4	<0.4	<0.4	<0.3

Table 6. Current and Historical Groundwater Quality	v Results for Disinfection Byproducts ^(a)
Table 0. Sufferit and instance Stoundwater Quant	ly incounts for Distillection Dyproducts

								Trihalomethan	es							
Sample Date	ΗΑΑ(5), ^(b) μg/L	ΗΑΑ(9), ^(c) μg/L	Bromochloro- acetic Acid, μg/L	Bromodichloro- acetic Acid, µg/L	Chlorodibromo- acetic Acid, µg/L	Dibromo- acetic Acid, µg/L	Dichloro- acetic Acid, μg/L	Monobromo- acetic Acid, μg/L	Monochloro- acetic Acid, μg/L	Tribromo- acetic Acid, μg/L	Trichloro- acetic Acid, µg/L	TTHMs, ^(d) µg/L	Chloroform, µg/L	Bromodichloro- methane, µg/L	Dibromochloro- methane, µg/L	Bromoform, μg/L
MW-6	_		_												_	
12/13/2014	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	<0.609	<0.17	<0.079	<0.13	<0.23
12/10/2015	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)
12/27/2016	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/19/2017	ND	ND	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<0.609	<0.17	<0.079	<0.13	<0.23
12/12/2018	<1.6	<3.1	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	E 0.21	<1.50	<0.4	<0.4	<0.4	<0.3
10/11/2019	<1.5	<3.0	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<1.50	<0.4	<0.4	<0.4	<0.3
8/13/2020	<1.2	<2.1	<0.16	<0.20	<0.22	<0.28	<0.25	<0.25	<0.25	<0.35	<0.17	<1.50	<0.4	<0.4	<0.4	<0.3
MW-7																
2016	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)
2017	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)	(g)
12/19/2018	<1.5	<3.0	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<1.50	<0.4	<0.4	<0.4	<0.3
10/24/2019	<1.5	<3.0	<0.15	<0.31	<0.31	<0.25	<0.18	<0.29	<0.65	<0.72	<0.17	<1.50	<0.4	<0.4	<0.4	<0.3
8/5/2020	<1.2	<1.8	<0.16	<0.20	<0.22	<0.28	<0.25	<0.25	<0.25		<0.17	<1.50	<0.4	<0.4	<0.4	<0.3

⁽a) Symbols and data qualifiers are described as follows:

[&]quot;<" or "ND" indicates non-detect (ND) results, with the Method Detection Limit (MDL) shown as the value following "<", except for total haloacetic acids (HAA) and total trihalomethanes (TTHMs) as detailed below.

[&]quot;J" preceding a value indicates that the quantitation of the result does not meet the laboratory's Standard Operating Procedure criteria.

[&]quot;E" indicates that value is estimated, concentration is outside calibration range.

[&]quot;--" indicates that no result was reported for the analyte on the corresponding sample date.

b) HAA5 value is calculated by adding values for dibromoacetic, dichloroacetic, monobromoacetic, monochloroacetic, and trichloroacetic acids, with "<" indicating that the total includes ND data (MDLs used). If all results are ND, then the total is indicated as ND.

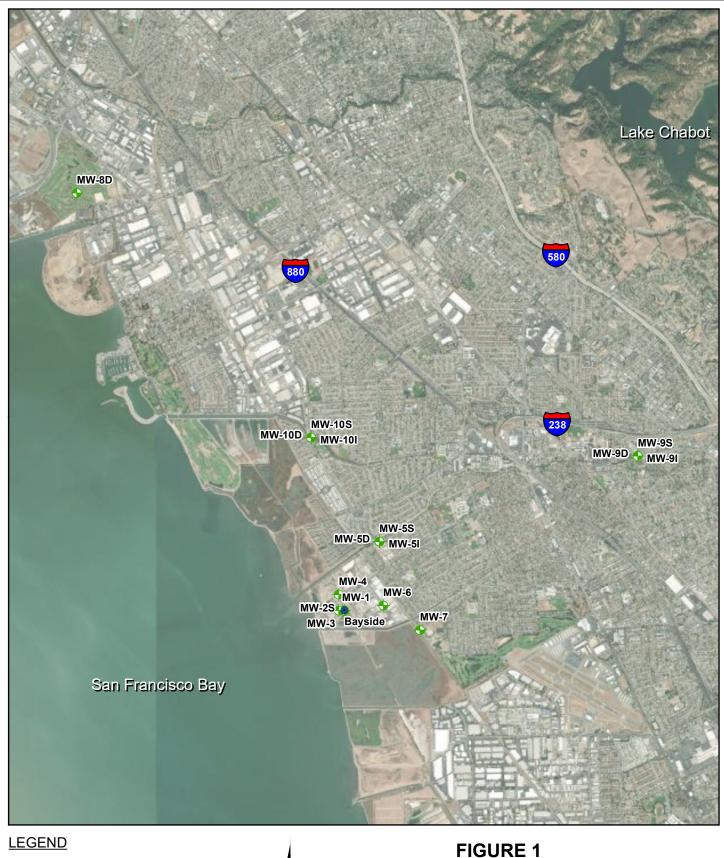
⁽c) HAA9 value is calculated by adding results for all individual haloacetic acids shown, with "<" indicating that the total includes ND data (MDLs used). If all results are ND, then the total is indicated as ND.

¹⁾ TTHMs value is calculated by adding individual trihalomethane results (including MDLs for ND data). If ND data is included, "<" is indicated with the TTHMs result.

^(e) Well MW-6 was not monitored for haloacetic acids in 2014.

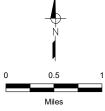
⁽¹⁾ Well MW-6 was not monitored in 2015 due to pump equipment failure.

^(g) Well MW-7 was not sampled in 2016 and 2017 because the pump EBMUD owns was found to be incompatible with the well.



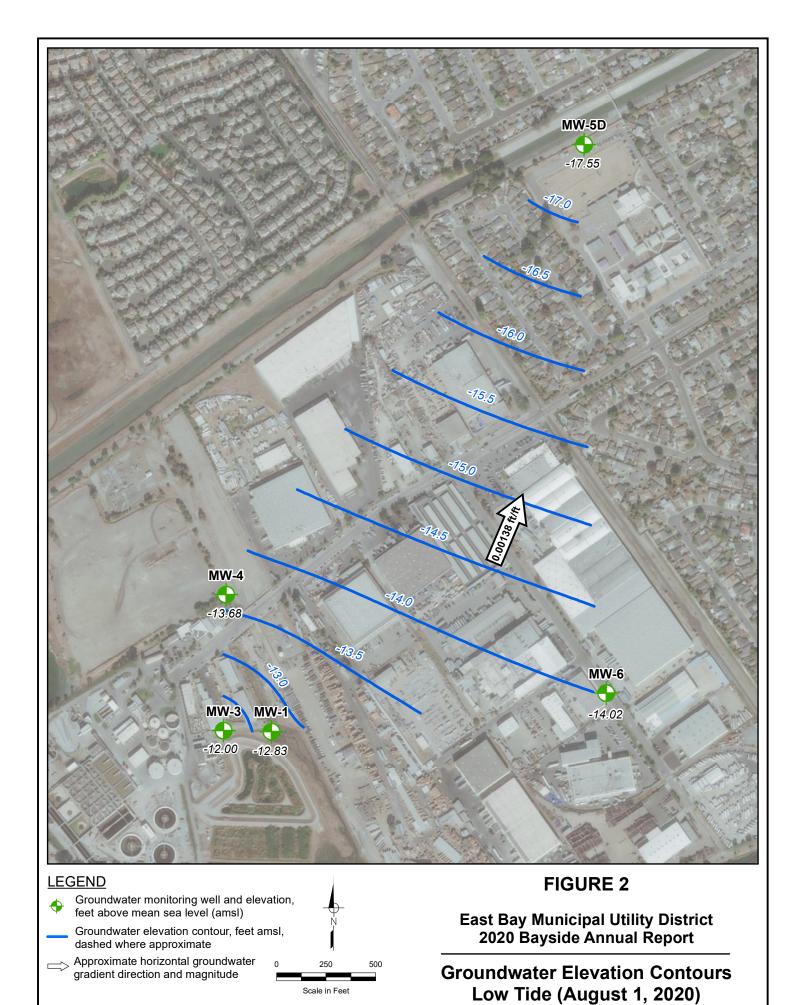


Bayside Aquifer Storage and Recovery Well



East Bay Municipal Utility District 2020 Bayside Annual Report

Well Location Map



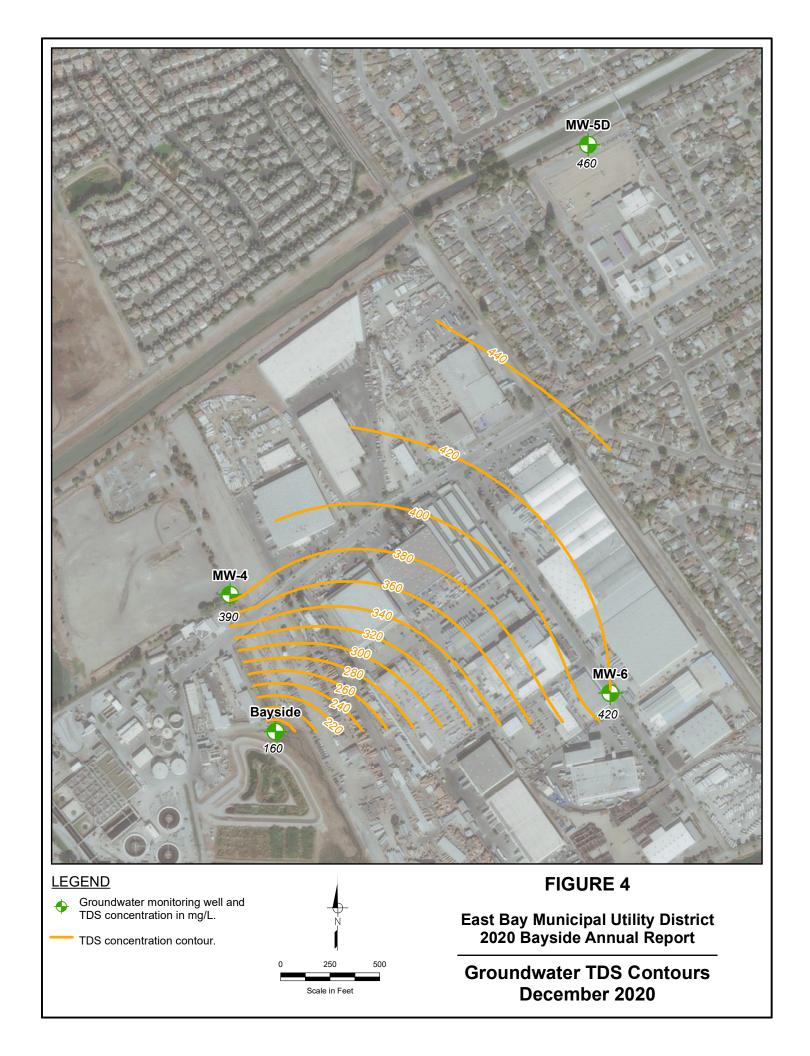


Approximate horizontal groundwater gradient direction and magnitude

Scale in Feet

Approximate horizontal groundwater gradient direction and magnitude

Groundwater Elevation Contours High Tide (December 1, 2020)



Attachmen	nt A – Gro	undwate	er Purgir	ng Logs	

SITE NAME: Bayside W	ell					,						
WELL NO: Bayside				INSI	SPECTOR: NK/KK	JCP	[DATE: 8/25/20)			
					PURGING DAT	TA						
WELL DIAMETER (inches): 1	18		TUBING DIAMETER (inches): NA	WEI	WELL SCREEN INTERVAL DEPTH: NA INITIAL TOTALIZER READING (gal): 2075250						PE: ed mp	
WELL VOLUME PURC	SE:										•	
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): NA INIT			GING ATED AT: 0.0	9	PURGING ENDED AT: 1048	TOTAL VOLUM PURGED (gallo	ns):	FINAL TOTALIZER R	OTALIZER READING (gal):			
TIME	VOLUME PURGED (gallons)		TOTAL VOLUME PURGED (gallons)		pH (standard units	TEI	MP. C)	COND. (circle units) mS/cm or uS/cm				
1022	10,000		2085,25	0	6.06	19	.2	282.9				
1035	10,000		2,095,29	50	6.88	19	2.0	236.5				
1048	10,00	0	2,105,25	50	7.24	19	.2	227.4				
							i					
WELL CAPACITY (Gal	lons Per Foo	t): 2	2" = 0.16; 4 "	= 0.65	5							
PURGING EQUIPMENT (Specify)	T CODES:	В	= Bailer; BP = B	Bladde	er Pump; ESP = Electr	ic Submersible P	ump; F	PP = Peristaltic Pump; () = Oth	er		

SITE NAME: Bayside Well	s									
WELL NO: 2S		INS	PECT	OR:	GE/CP D	ATE: 8/11	120			
					JRGING DATA	0/11	120			
WELL DIAMETER (inches): 2				RE	EN INTERVAL DEPTH: 40 fo	DEPTH TER (feet):		RGE F	PUMP	
WELL VOLUME PUF	RGE: (60 f	ft - 6.12 f	t) X	0.		gallons X 3 =	=25.86 total purge g	allon	5	
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 2	PURGIN INITIATE	IG ED AT: ハタロ TOTAL	50		JRGING TOTA NDED AT: 140 PURG	L VOLUME SED (gallons):	FINAL STATIC I	DEPTH	2:1	9
TIME P	VOLUME VOLUME PURGED PURGED (gallons) (gallons)		pH D (standard		pH (standard units)	TEMP. (°C)	COND. (circle units) mS/cm or μS/cm			
1134	8	8			6.53	19.9	86.5			
1138	8	16			6.65	19.9	85.7			
1142	8 24 8 32				6.66	19.4	85.9			
1146	3	32			6.66	19	84.9			
				1						

				• • •	ATENTON							
SITE NAME: Bayside	Wells		1		00.01							
WELL NO: 2I			INSPEC		1010	DA.	TE: 08	y u)			
WELL DIAMETER (inches): 2		TUBING DIAMETER (inches): 1/2	WELL So to 190	CRE	JRGING DATA EN INTERVAL DEPTH		eet STATIC TO WAT		13.22		GE PU	
WELL VOLUME	PURGE: (L2 ft)	X (0.16 gal/ft = 2°	.88	gallons X 3	= 89.7	total purge	gallor	ıs	
INITIAL PUMP OR TUB DEPTH IN WELL (feet):	ING PU	IRGING ITIATED AT:	1:50	PI El	URGING NDED AT: 0 20	TOTAL PURGE	VOLUME ED (gallons):		FINAL STATIC DI TO WATER (feet)	EPTH 17	.55	bi
TIME	VOLUME PURGED (gallons)	TOTAL VOLUME PURGEI (gallons)	5		pH (standard units)	TEMP. (°C)		COND. ircle units) cm or µS/cm	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Per Ca
09:20	30 30				7.69	18.2		1045				
09:20	30	60			7.78		184	200	100			1
10020	30	90			7.8	7	13.7	1	ory			1
											++	
											+	
											+	-
				-								
ple 10:25					7.15		19.0		orf	Tota	10/2	ing 1

Sample 10:25

r	7 5144										
-	SITE NAME: Bayside	Wells									
-	WELL NO: 4		INSPE	CTOR	P/GE D	ATE: 8/1	1/20				
_				P	URGING DATA					,	
	WELL DIAMETER (inches): 2	1	TUBING WELL to 650 (inches): 1/2		EN INTERVAL DEPTH: 520	feet STATIO	TER (feet): Q.53	1	TYPE: ES		
	WELL VOLUME	PURGE: (6	650 ft - Q.53 ft) X	0.16 gal/ft = \ D\. \(\alpha\)	gallons X 3	=305.98 total purge	gallor	18		
	INITIAL PUMP OR TUBING PUR DEPTH IN WELL (feet): 30 INITI		RGING TIATED AT: 910	P	URGING TOTAL NDED AT: (OC) PURG	L VOLUME ED (gallons):	19.2 FINAL STATIC D TO WATER (feet	EPTH): Q	,4	7	
	TIME	VOLUME PURGED (gallons)	TOTAL VOLUME PURGED (gallons)		pH (standard units)	TEMP.	COND. (circle units) mS/cm or (LS)cm				
1	936	79.8	79.4		7.59	25	048				
	940	79.8	159.6		7.79	25	608				
	950	79.8	2391.4		7.82	28	594				
	1000	79.8	319.2		7.84	25	5 94				
	Constant of the Constant of th										
		,									
					,						

SITE NAME: Bayside	Wells				1 \ \ 1	I		1 1				
WELL NO: 5D			INSPEC		1,11	DATE:	08	10	10			
WELL		TUBING	WELL SO		JRGING DATA EN INTERVAL DEPTH: 5	500 feet	STATIC	DEPTH		P	URGE	PUMP
DIAMETER (inches): 4		DIAMETER (inches): 1/2	to 630				TO WAT	ER (feet)	17.3	T	YPE: E	SP
WELL VOLUME	PURGE: (6	640 ft - 17.2 622.69	ft)	Χ (0.65 gal/ft = 122.	75	ons X 3	= 12/4	total purge	gall	ons	
INITIAL PUMP OR TUB DEPTH IN WELL (feet):	ING PU	RGING TIATED AT:	9:40	PI EN	JRGING 12:22 TO	OTAL VOL JRGED (g	UME allons):		AL STATIC DEPT WATER (feet):	H	1.32	
TIME	VOLUME PURGED (gallons)	TOTAL VOLUME PURGEI (gallons)	5		pH (standard units)		TEMP. (°C)	mS.	COND. (*W circle units) /cm of µS/cm	pens	wed	
10:20	300	300			1,50	7	13.7	1	105			
14:00	300	600			1.43		12.5	,	183			
11:40	300	900)		7.60		22.6		780			
12:20	300	1200	0		1.56		12.8		780			
									1			
					-							
,												
					-							
12:26					7.56	7	12.0		674	Tota	0.	Ь

SITE NAME: Bayside	Wells			.b/100/0.1						
WELL NO: 6			INSPECTO	R: NK/CP/BC/6	DATE:	08/13/2	.h			
			Р	URGING DAT	Α	710/2				
WELL DIAMETER (inches): 4		DIAMETER	to 650 fee		DEPTH TER (feet): [2.1]	- 1	PURGE P TYPE: E S	- 1		
WELL VOLUME	PURGE: (655 ft - 12.1	ft) X	(0.65 gal/ft = 4	17.8 7 gal	lons X 3	= 1253.6 total pur			
INITIAL PUMP OR TUB DEPTH IN WELL (feet):	ING PL	JRGING ITIATED AT:	17	PURGING ENDED AT:	TOTAL VOL PURGED (g		FINAL STAT	IC DEP	TH *	
TIME	VOLUME VOLUME PURGED PURGI (gallons) (gallor			pH (standard uni		TEMP. (°C)	COND. (circle units) mS/cm <u>or (</u> uS/cm			
9:57	312	312		7.62	2	3.1	625			
10:37	312	624		7.65	- 2	3.7	635			
11:17	312	936		7,56		23.0				
11:39 172		1108	F .	**Well pump ** Lowered pum	sed ary	at 11: g oleph	39. 1 to 45-ft wi surmed at 11:	th f	lowr	ate
				of 7gpm	. Purgir	ig rea	surmed at 11:	54		
12:15	146	1259	4	7.40	2	3.2	6.60			
						2.0				

Flow Rate, = 7.89pm

Flow Rakz = 7 gpm

* Water, redicator Not Functioning (Battery)

SITE NAME: Bayside	Wells							.5 au			
WELL NO: 7	VV CIIS	2	INSPEC	TOR	ZW, MV D	ATE:	1/	M/20			
					URGING DATA		01	<u>u / 20</u>			
WELL DIAMETER (inches): 4		TUBING DIAMETER (inches): 1/2	to 630	CRE feet	EN INTERVAL DEPTH: 510	TO WA	C DEPTH TER (feet): 13,57	TYF	RGE PU		
WELL VOLUME	PURGE:	(680 ft - 13.	57 ft)	X	0.65 gal/ft = 433.17	gallo	ons X 3	= 1299,54 total purge	gallo	ns	
INITIAL PUMP OR TUE DEPTH IN WELL (feet)	BING PI : 25 IN	URGING IITIATED AT:		P	URGING 1230 TOTA PURG	L VOLU SED (ga	ME lons): / 2	FINAL STATIC DEPTH TO WATER (feet):	1 /	/	
TIME	VOLUME PURGED (gallons)	TOTAL VOLUM PURGE (gallons	E D		pH (standard units)	TI (EMP. °C)	COND. (circle units) mS/cm <u>or</u> µS/cm			
10:55	433	3 43	3		7.49	20,		- M			
11.45	433	866			7.06	21.	4	759 mS 756			
12:30	433	> 1290	7		7,06	2	2.0	756			
							-				
								-			
									v		
577											
					,						
										+	

Attachment B – Groundwater Elevation Trends for Monitoring Wells

Figure B-1. 2020 MW-1 Groundwater Elevation Trend

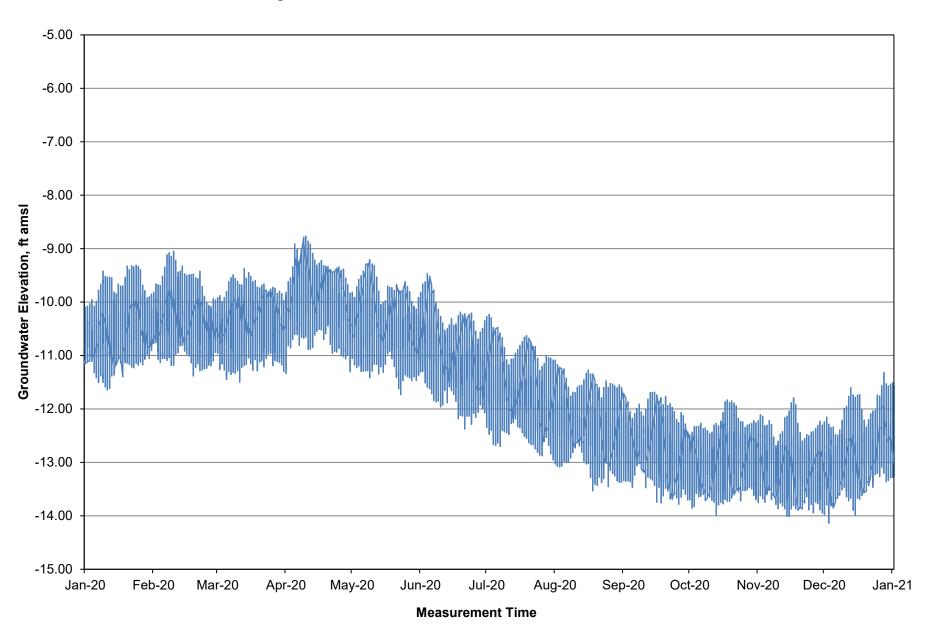


Figure B-2. 2020 MW-2S Groundwater Elevation Trend

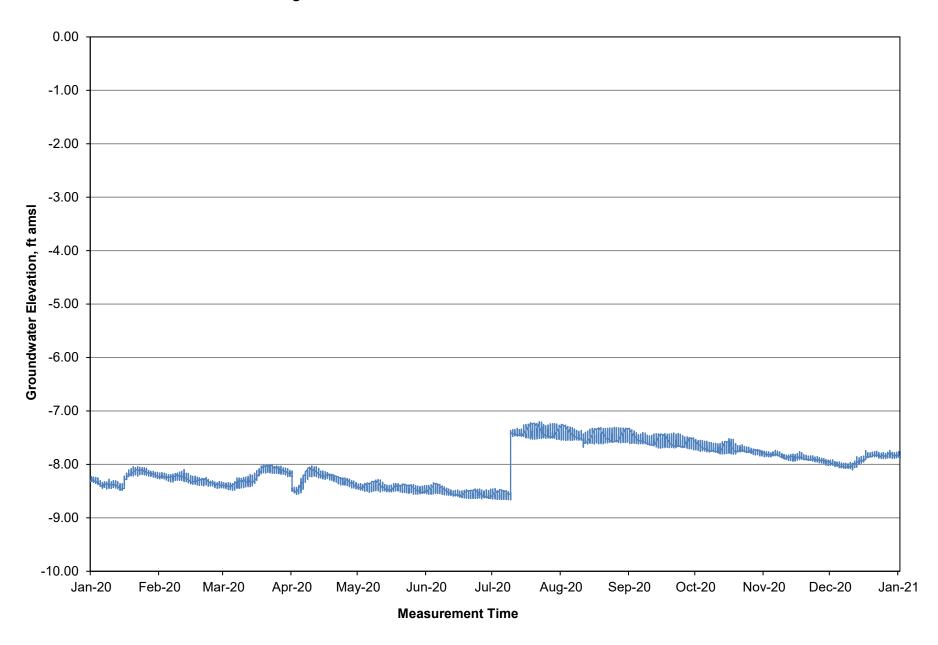


Figure B-3. 2020 MW-2I Groundwater Elevation Trend

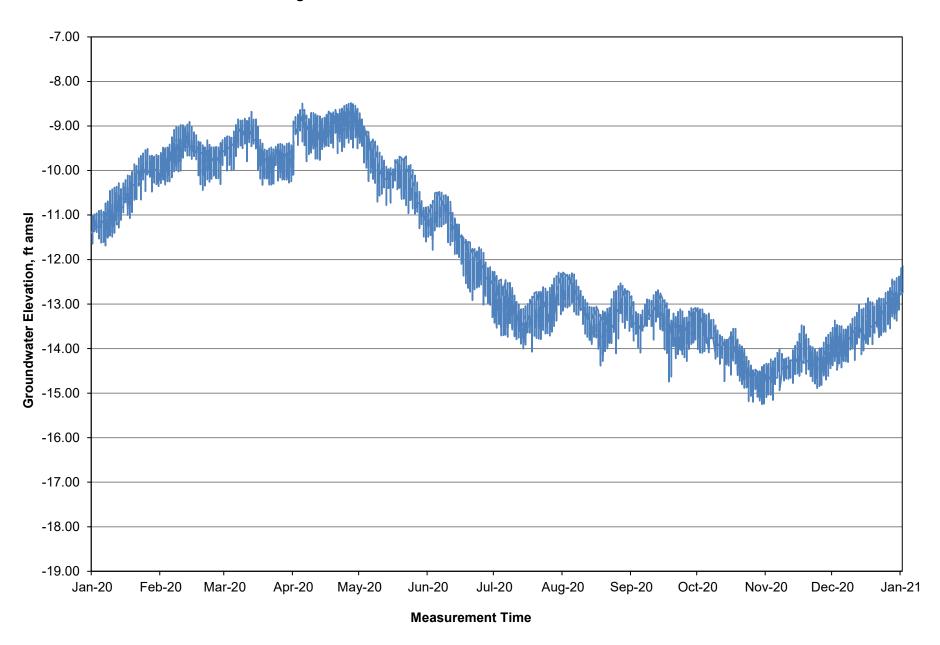


Figure B-4. 2020 MW-3 Groundwater Elevation Trend

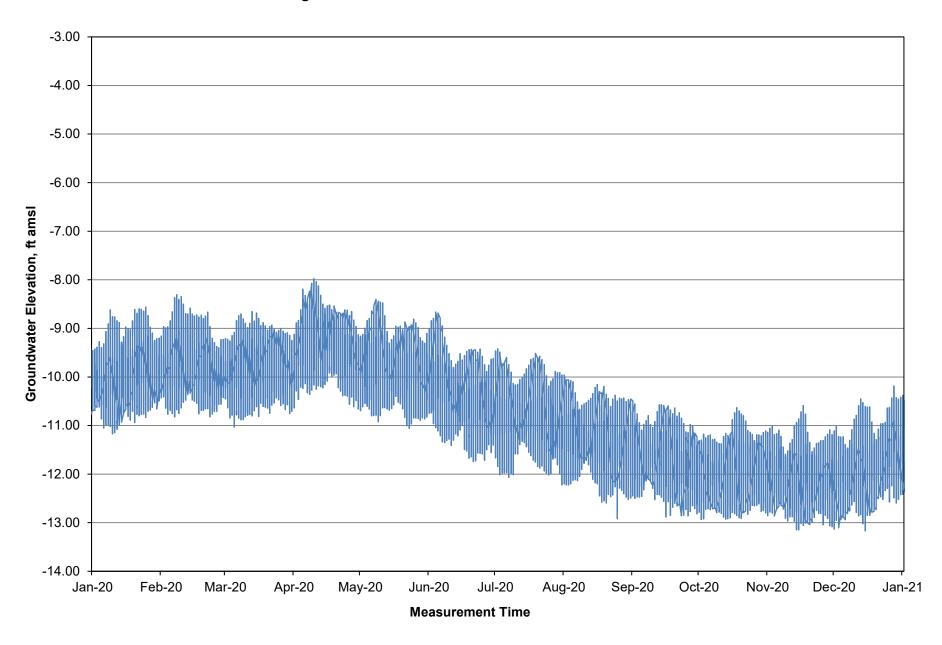


Figure B-5. 2020 MW-4 Groundwater Elevation Trend

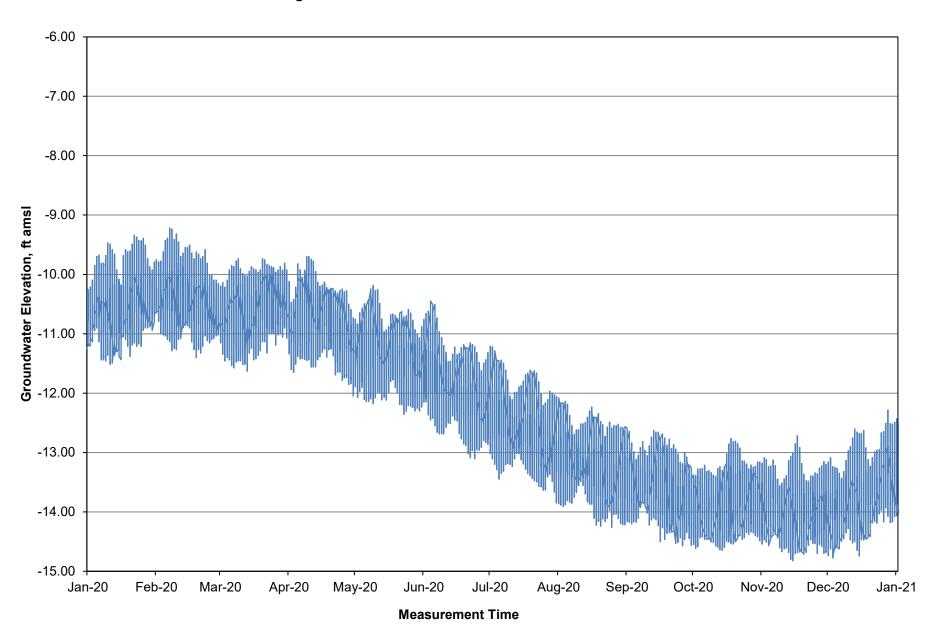
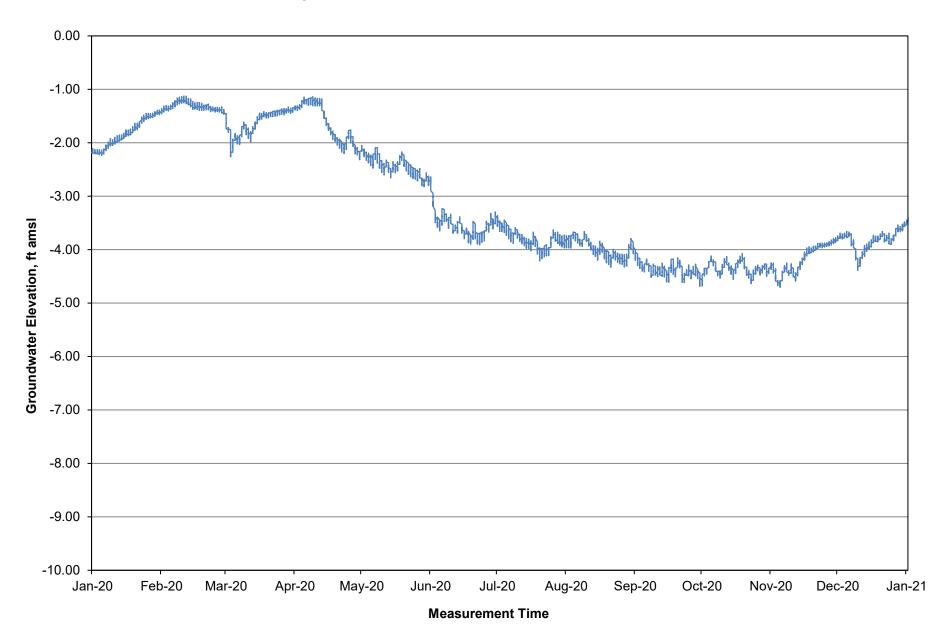


Figure B-6. 2020 MW-5S Groundwater Elevation Trend



Larry Walker Associates
February 2021

Figure B-7. 2020 MW-5I Groundwater Elevation Trend

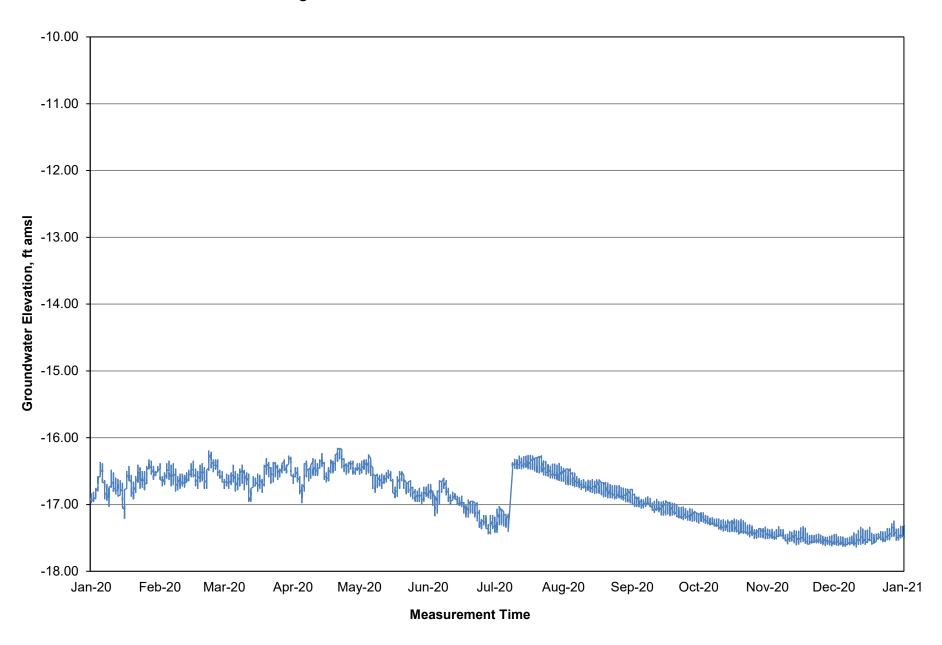


Figure B-8. 2020 MW-5D Groundwater Elevation Trend

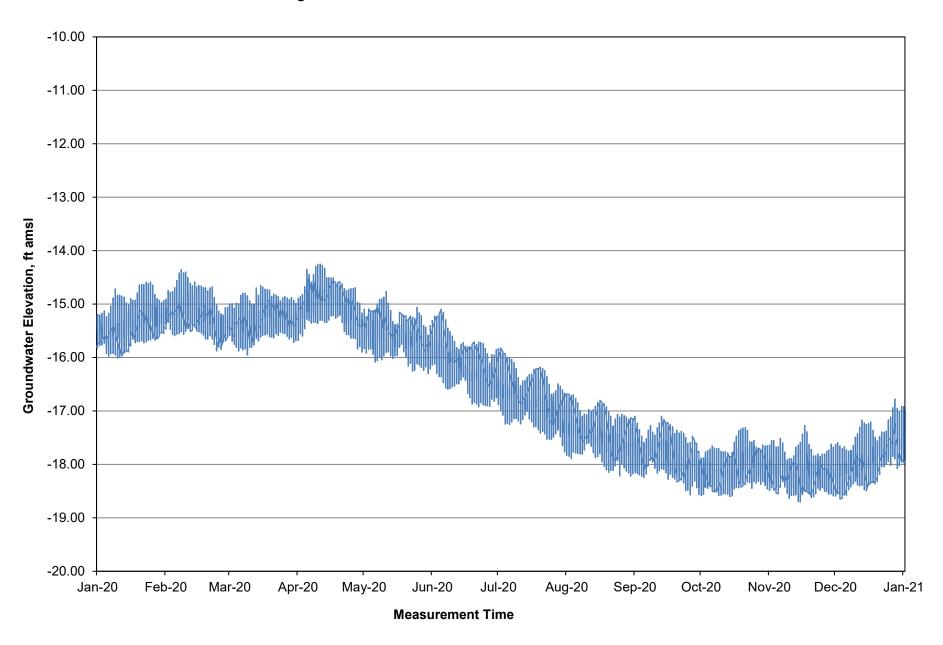


Figure B-9. 2020 MW-6 Groundwater Elevation Trend

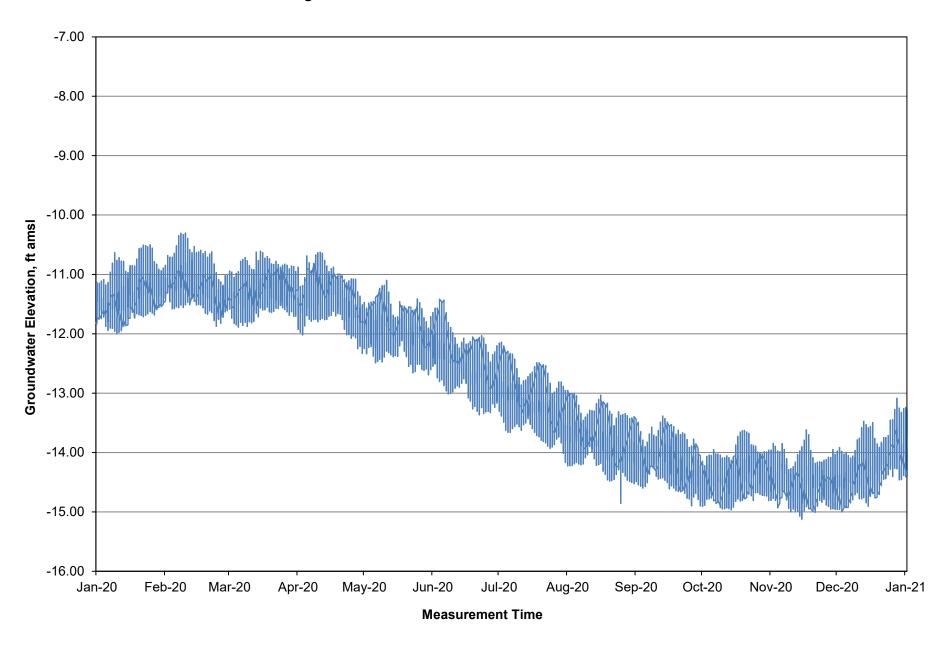


Figure B-10. 2020 MW-7 Groundwater Elevation Trend

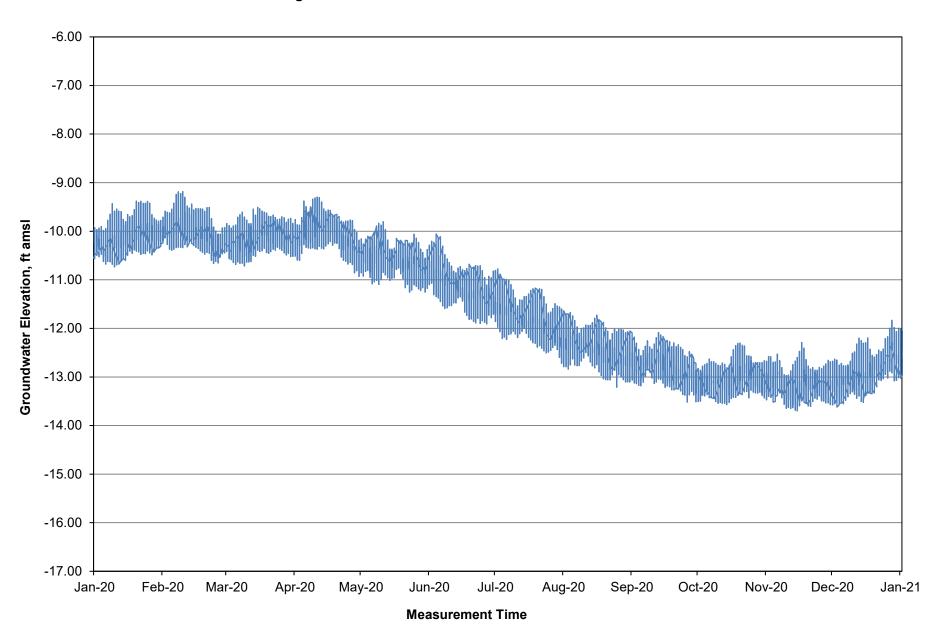


Figure B-11. 2020 MW-9D Groundwater Elevation Trend

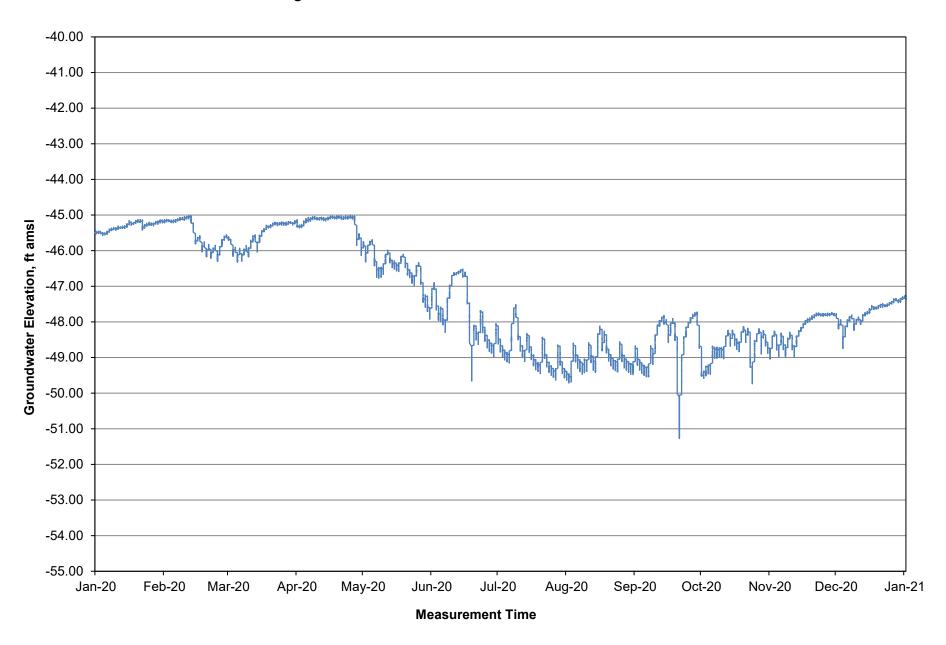


Figure B-12. 2020 MW-10l Groundwater Elevation Trend

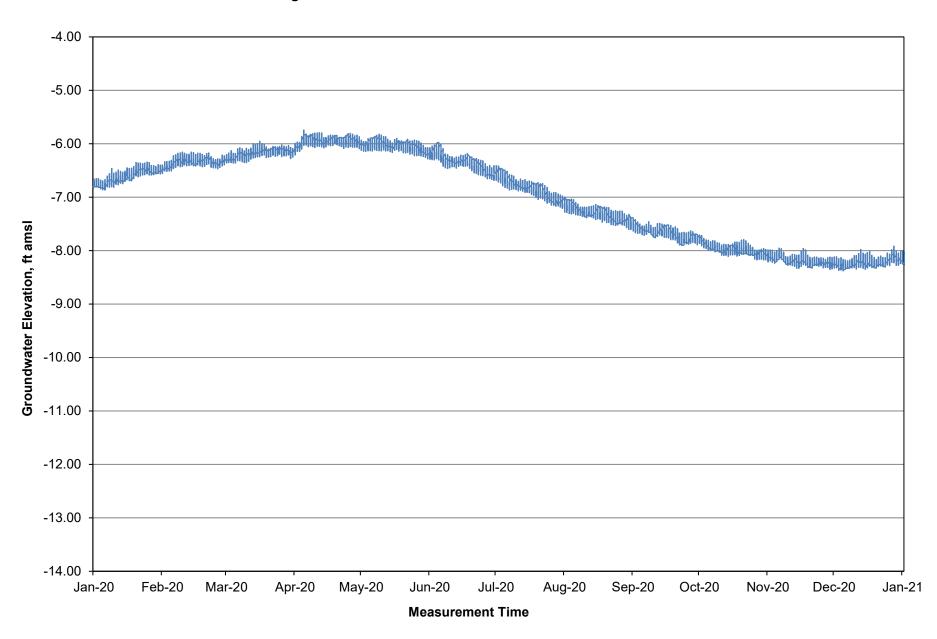
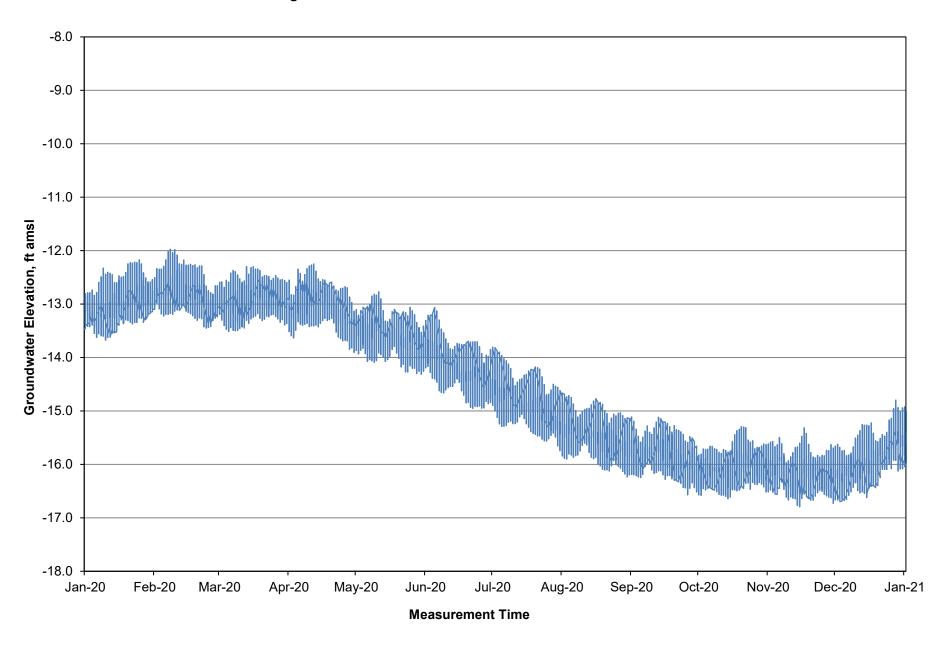


Figure B-13. 2020 MW-10D Groundwater Elevation Trend



Attachment C – Analytical Lab Reports for 2020 Water Quality Monitoring

Report generated on: Sep 22, 2020 01:46 pm Login No.: L237557

Reported by:

KRISTI LORENSON

Laboratory Program Manager

Approved by:

Yuyun Shang

Laboratory Services Division Manager

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

1 - Sample received by the lab on: Aug 11 2020, 02:35 pm

0 - Lost Analyses

0 - Hold Time Exceedences

Turn-around-time not met

Samples included in this report:

Type Collected Site Locator ClientID Sample L237557-1 GRAB 11-Aug-2020 12:05 GW BAYSIDE BAY1-MW2S MW2S

Legend to the laboratory qualifiers used in this report:

U - Analyte not detected



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW2S OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW2-60

ClientID: MW2S Lab ID:

L237557-1 (P246968-1) Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 11 2020, 12:05pm Sample collector: C. PAGTAKHAN Date Received: Aug 11 2020, 02:35pm Sample receiver: VNGUYEN

Sample Comments: MW-2S; +FLD DATA: pH = 6.62; Cl2R = 0.3 mg/L; Depth to GW = 6.19 feet;

Temp =25.0deg C; Labelled as RAW WATER for the program. [Analyst Note: May

need to dilute for ICP & IC due to salt water intrusion]

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 8260B - Trihalomethanes,	GC/MS					GroundH20	
Subcontract data from Alpha Analytical Lab							
Comment: U - ANALYTE INCLUDED IN ANA	LYSIS BUT NOT DET	ECTED AT OR	ABOVE MDL				
SUBCONTRACT LAB DATA							
BROMODICHLOROMETHANE	U	0.4	ug/L	1	0.4	0.5	
BROMOFORM	U	0.3	ug/L	1	0.3	0.5	
CHLOROFORM	U	0.4	ug/L	1	0.4	0.5	
DIBROMOCHLOROMETHANE	U	0.4	ug/L	1	0.4	0.5	
TRIHALOMETHANES	U	0.4	ug/L	1	0.4	0.5	
Run ID: R306511 / Work Group No.: WG	237971						
Prep Date1: 18-AUG-20 Analyzed 18-Au	ıg-20 13:35						

Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal for oxygen 18

GroundH20

Subcontract data from Alpha Analytical Lab

Comment: Refer to sublab data report attached

SUBCONTRACT LAB DATA DATA TRANSMITTAL

Run ID: R307090 / Work Group No.: WG238277 Prep Date1: 08-SEP-20 Analyzed 08-Sep-20 00:00

GroundH20 Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal

Comment: Original report transmitted to client. Copy of report archived with data packet.

SUBCONTRACT LAB DATA DATA TRANSMITTAL

Run ID: R307089 / Work Group No.: WG237970 Prep Date1: 16-SEP-20 Analyzed 16-Sep-20 00:00

Method: SAMPLER PROVIDED FIELD MEASUREMENTS - DATA ENTR	Y LIST FOR	R FIELD DATA			GroundH2O
FIELD ANALYSIS/OBSERVATION DATA PARAMETERS					
PH	6.62	pH units	1		
TEMPERATURE	25	deg C	1		
DEPTH	6.19	feet	1		
CHLORINE RESIDUAL: TOTAL	0.3	mg/L	1	0.08	
Run ID: R306101 / Work Group No.: WG237641					
Prep Date1: 11-AUG-20 Analyzed 11-Aug-20 12:05					

Method: EPA 300.1 - Ion Chromatography						GroundH2O
Instrument calibrated 10-AUG-20						
TARGET ANALYTES						
CHLORIDE		43,000	mg/L	5000	140	
NITRATE AS N	U	18	mg/L	5000	18	0.4
SULFATE		5,600	mg/L	5000	150	0.5
SURROGATE						
DICHLOROACETATE		98	% recove	ery 5000		
Day ID: D206042 / Marsh Green No : MG227EE0						

Run ID: R306043 / Work Group No.: WG237559 Prep Date1: 11-AUG-20 Analyzed 11-Aug-20 22:44



Lab ID:

EAST BAY MUNICIPAL UTILITY DISTRICT Laboratory Services Division PO Box 24055, MS 59, Oakland, CA 94623 Phone (510)287-1432 Fax (510)465-5462

Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Site:

Locator: BAY1-MW2S OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW2-60

ClientID: MW2S

L237557-1 (P246968-1) Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 11 2020, 12:05pm Sample collector: C. PAGTAKHAN Date Received: Aug 11 2020, 02:35pm Sample receiver: VNGUYEN

Sample Comments: MW-2S; +FLD DATA: pH = 6.62; Cl2R = 0.3 mg/L; Depth to GW = 6.19 feet;

Temp =25.0deg C; Labelled as RAW WATER for the program. [Analyst Note: May

need to dilute for ICP & IC due to salt water intrusion]

Method Reference						Matrix Tag
Parameter Q	ualifier	Result	Units	Dilution	MDL	RL/ML
Method: EPA 552.2 - Haloacetic Acids						GroundH2O
TARGET ANALYTES						
BROMOCHLOROACETIC ACID	Ū	0.16	ug/L	1	0.16	
BROMODICHLOROACETIC ACID	Ū	0.20	ug/L	1	0.2	
CHLORODIBROMOACETIC ACID	Ū	0.22	ug/L	1	0.22	
DIBROMOACETIC ACID	IJ	0.28	ug/L	1	0.28	1
DICHLOROACETIC ACID	Ū	0.25	ug/L	1	0.25	1
MONOBROMOACETIC ACID	Ū	0.25	ug/L	1	0.25	1
MONOCHLOROACETIC ACID	Ū	0.25	ug/L	1	0.25	2
FRICHLOROACETIC ACID	Ū	0.17	ug/L	1	0.17	1
VALUE CALCULATED FROM OTHER RESULTS	Ü	0.17	ug/ 1	_	0.17	±
HAA(5)	Ū	1.0	ug/L			
HAA (5) calculation uses a zero for a				an the Californ	ia DLP for	
that HAA	ny marviad	ai iiAA icsu	it icss cii	an the carrion	Id Din IOI	
INTERNAL STANDARD						
1,2,3-TRICHLOROPROPANE		100	% recov	erv	1	
SURROGATE		100	-0 TECO∧	CTÀ	Δ.	
SURROGATE 2,3-DIBROMOPROPIONIC ACID		94	% recov	oru	1	
•		94	% recov	ery	1	
Run ID: R306520 / Work Group No.: WG237626						
Prep Datel: Analyzed 13-Aug-20 23:39						
Method: SM2320B - 2011, Titration						GroundH20
TARGET ANALYTES						
ALKALINITY: TOTAL AS CACO3		410	mg/L	1	5	
Run ID: R306053 / Work Group No.: WG237588						
Prep Date1: 12-AUG-20 Analyzed 12-Aug-20 0	7:59					
Method: SM2320B-1997 - Calculation						GroundH20
TARGET ANALYTES						
ALKALINITY: BICARBONATE		410	mg/L	1	5	
Run ID: R306054 / Work Group No.: WG237591						
Prep Date1: 12-AUG-20 Analyzed 12-Aug-20 1						
Method: SM2320B-1997 - Calculation						GroundH2O
TARGET ANALYTES						02 0 000000
ALKALINITY: HYDROXIDE	IJ	0.10	mg/L	1	0.1	
Run ID: R306054 / Work Group No.: WG237591	•		5, -	_		
Prep Datel: 12-AUG-20 Analyzed 12-Aug-20 1						
Tep bacer 12 noc 20 mary2ea 12 mag 20 1	1.22					
Method: SM2320B-1997 - Calculation						GroundH2O
TARGET ANALYTES						
ALKALINITY: CARBONATE	U	0.10	mg/L	1	0.1	
Run ID: R306054 / Work Group No.: WG237591		3.10		=	* · *	
Prep Date1: 12-AUG-20 Analyzed 12-Aug-20 1						
Method: SM2340C - 2011, Titration: EDTA						GroundH2O
TARGET ANALYTES						
HARDNESS: TOTAL AS CACO3		17,000	mg/L	50	150	
Run ID: R306547 / Work Group No.: WG237996		•	5, –		- -	
Prep Datel: 01-SEP-20 Analyzed 01-Sep-20 1						



Lab ID:

EAST BAY MUNICIPAL UTILITY DISTRICT Laboratory Services Division PO Box 24055, MS 59, Oakland, CA 94623 Phone (510)287-1432 Fax (510)465-5462

Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Site:

Locator: BAY1-MW2S ${
m OW-1}$ the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW2-60

ClientID: MW2S

L237557-1 (P246968-1) Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 11 2020, 12:05pm Sample collector: C. PAGTAKHAN Date Received: Aug 11 2020, 02:35pm Sample receiver: VNGUYEN

Sample Comments: MW-2S; +FLD DATA: pH = 6.62; Cl2R = 0.3 mg/L; Depth to GW = 6.19 feet;

Temp =25.0deg C; Labelled as RAW WATER for the program. [Analyst Note: May

need to dilute for ICP & IC due to salt water intrusion]

Method Reference						Matrix	Taq
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	3
Method: SM2540C - 2011, Dried at 180C						GroundH20	
TARGET ANALYTES						GI Oulidh20	
TOTAL DISSOLVED SOLIDS		76,000	mq/L	100	1000		
Run ID: R306091 / Work Group No.: WG237		70,000	mg/ n	100	1000		
Prep Date1: 12-AUG-20 Analyzed 12-Aug-2							
Trep baser in moe no imarinea in may h	.0 0, 30						
Method: SM4500-NH3 B, C - 2011, Distill	ation & Titrat	ion				GroundH20	
TARGET ANALYTES							
AMMONIA AS N	U	0.250	mg/L	1	0.25		
Run ID: R306441 / Work Group No.: WG237	868						
Prep Date1: 27-AUG-20 Analyzed 27-Aug-2	09:45						
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O	2
TARGET ANALYTES							
MAGNESIUM	2.7	1E+06	ug/L	41.6	229		
MANGANESE		33,900	ug/L	41.6	5.41	20	
Run ID: R306502 / Work Group No.: WG237							
Prep Date1: 25-AUG-20 Prep Date2: 30-AU	JG-20 Analyzed	31-Aug-20	13:45				
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O	1
TARGET ANALYTES							
SODIUM	2.0	5E+07	ug/L	416	1710		
Run ID: R306502 / Work Group No.: WG237	955						
Prep Date1: 25-AUG-20 Prep Date2: 30-AU	JG-20 Analyzed	31-Aug-20	13:27				
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O	
TARGET ANALYTES							
CALCIUM	2	80,000	ug/L	20.8	451		
IRON	U	108	ug/L	20.8	108	100	
POTASSIUM	4	95,000	ug/L	20.8	397		
Run ID: R306491 / Work Group No.: WG237	944						

Prep Date1: 25-AUG-20 Prep Date2: 30-AUG-20 Analyzed 30-Aug-20 15:16

Report generated on: Sep 25, 2020 12:50 pm Login No.: L237889

Reported by:

KRISTI LORENSON

Laboratory Program Manager

Approved by:

Yuyun Shang

Laboratory Services Division Manager

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

1 - Sample received by the lab on: Aug 26 2020, 02:04 pm

0 - Lost Analyses

0 - Hold Time Exceedences

Turn-around-time not met

Samples included in this report:

Type Collected Locator ClientID Sample Site L237889-1 GRAB 26-Aug-2020 10:25 GW BAYSIDE BAY1-MW2I MW2I

Legend to the laboratory qualifiers used in this report:

B - Analyte detected in method blank

U - Analyte not detected



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW2I OW-1 the same parcel as the Bayside Well on Oro Loma Property; aka BAY1-MW2D until 11-2009;

formerly BAY1-MW2-190

ClientID: MW2I

Lab ID: L237889-1 (P246967-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 26 2020, 10:25am Sample collector: B. Chan Date Received: Aug 26 2020, 02:04pm Sample receiver: ANG

Sample Comments: MW-2I; +FLD DATA: pH = 7.75 ; Cl2R = 0.6 mg/L; Depth to GW = 17.55

feet; GW Elevation = NA feet; Temp = 19.0 deg C; Labelled as RAW

WATER for the program.

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 8260B - Trihalomethanes, G	C/MS					GroundH20	
Subcontract data from Alpha Analytical Lab							
Comment: U - ANALYTE INCLUDED IN ANALY	SIS BUT NOT DET	ECTED AT OR	ABOVE MDL				
SUBCONTRACT LAB DATA							
BROMODICHLOROMETHANE	Ū	0.4	ug/L	1	0.4	0.5	
BROMOFORM	U	0.3	ug/L	1	0.3	0.5	
CHLOROFORM		0.73	ug/L	1	0.4	0.5	
DIBROMOCHLOROMETHANE	U	0.4	ug/L	1	0.4	0.5	
TRIHALOMETHANES		0.73	ug/L	1	0.4	0.5	
Run ID: R306980 / Work Group No.: WG23	8152						
Prep Date1: 02-SEP-20 Analyzed 02-Sep-	20 15:51						

Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal for oxygen 18 GroundH20

Subcontract data from Alpha Analytical Lab

Comment: Refer to sublab data report attached

SUBCONTRACT LAB DATA

DATA TRANSMITTAL

Run ID: R307325 / Work Group No.: WG238384 Prep Date1: 21-SEP-20 Analyzed 21-Sep-20 00:00

Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal GroundH2O

Subcontract data

Comment: Original report transmitted to client. Copy of report archived with data packet.

SUBCONTRACT LAB DATA

Run ID: R307324 / Work Group No.: WG238383

Prep Date1: 22-SEP-20 Analyzed 22-Sep-20 00:00

Method: SAMPLER PROVIDED FIELD MEASUREMENTS - DATA ENTRY LIST FOR FIELD DATA GroundH20 FIELD ANALYSIS/OBSERVATION DATA PARAMETERS pH units PΗ 7.75 1 TEMPERATURE 19 deg C 1 17.55 DEPTH feet 1 CHLORINE RESIDUAL: TOTAL 0.6 mg/L 1 0.08 Run ID: R306480 / Work Group No.: WG237936 Prep Datel: 26-AUG-20 Analyzed 26-Aug-20 10:25

Method: EPA 300.1 - Ion Chromatography GroundH20 Instrument calibrated 10-AUG-20 TARGET ANALYTES CHLORIDE 160 mg/L 20 0.54 NITRATE AS N 0.070 0.07 0.4 U 20 mg/L **SURROGATE** DICHLOROACETATE 99 % recovery 20

Run ID: R306417 / Work Group No.: WG237858

Prep Datel: 26-AUG-20 Analyzed 26-Aug-20 18:44



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW2I OW-1 the same parcel as the Bayside Well on Oro Loma Property; aka BAY1-MW2D until 11-2009;

formerly BAY1-MW2-190

ClientID: MW2I

Lab ID: L237889-1 (P246967-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 26 2020, 10:25am Sample collector: B. Chan Date Received: Aug 26 2020, 02:04pm Sample receiver: ANG

Sample Comments: MW-2I; +FLD DATA: pH = 7.75; Cl2R = 0.6 mg/L; Depth to GW = 17.55

feet; GW Elevation = NA feet; Temp = 19.0 deg C; Labelled as RAW

WATER for the program.

Method Reference	1161	D 1.	1.		1007	Matrix Tag
Parameter Q	ualifier	Result	Units	Dilution	MDL	RL/ML
Method: EPA 300.1 - Ion Chromatography						GroundH2O 1
Instrument calibrated 10-AUG-20						
TARGET ANALYTES						
SULFATE		7.3	mg/L	1	0.03	0.5
SURROGATE						
DICHLOROACETATE		96	% recov	ery 1		
Run ID: R306505 / Work Group No.: WG237908						
Prep Date1: 28-AUG-20 Analyzed 28-Aug-20 1	8:26					
Method: EPA 552.2 - Haloacetic Acids						GroundH2O
TARGET ANALYTES						
BROMOCHLOROACETIC ACID	U	0.16	ug/L	1	0.16	
BROMODICHLOROACETIC ACID	U	0.20	ug/L	1	0.2	
CHLORODIBROMOACETIC ACID	U	0.22	ug/L	1	0.22	
DIBROMOACETIC ACID	U	0.28	ug/L	1	0.28	1
DICHLOROACETIC ACID	U	0.25	ug/L	1	0.25	1
MONOBROMOACETIC ACID	U	0.25	ug/L	1	0.25	1
MONOCHLOROACETIC ACID	U	0.25	ug/L	1	0.25	2
TRIBROMOACETIC ACID	U	0.35	ug/L	1	0.35	
TRICHLOROACETIC ACID	U	0.17	ug/L	1	0.17	1
VALUE CALCULATED FROM OTHER RESULTS						
HAA(5)	Ū	1.0	ug/L			
HAA (5) calculation uses a zero for a	ny individu	al HAA resu	lt less th	an the Californ	ia DLR for	
that HAA						
HAA(9)	Ū	1.0	ug/L			
INTERNAL STANDARD		4.00				
1,2,3-TRICHLOROPROPANE		100	% recov	ery	1	
SURROGATE		100			i	
2,3-DIBROMOPROPIONIC ACID		100	% recov	ery	1	
Run ID: R306537 / Work Group No.: WG237958						
Prep Datel: Analyzed 31-Aug-20 19:53						
Method: SM2320B - 2011, Titration						GroundH2O
TARGET ANALYTES						
ALKALINITY: TOTAL AS CACO3		380	mg/L	1	5	
Run ID: R306472 / Work Group No.: WG237909						
Prep Date1: 28-AUG-20 Analyzed 28-Aug-20 0	8:02					
Method: SM2320B-1997 - Calculation						GroundH20
TARGET ANALYTES						
ALKALINITY: CARBONATE	U	0.10	mg/L	1	0.1	
Run ID: R306479 / Work Group No.: WG237933						
Prep Date1: 28-AUG-20 Analyzed 28-Aug-20 1	4:18					
Method: SM2320B-1997 - Calculation						GroundH2O
TARGET ANALYTES				_	_	
ALKALINITY: HYDROXIDE	U	0.10	mg/L	1	0.1	
Run ID: R306479 / Work Group No.: WG237933						
Prep Date1: 28-AUG-20 Analyzed 28-Aug-20 1	4:18					



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW2I OW-1 the same parcel as the Bayside Well on Oro Loma Property; aka BAY1-MW2D until 11-2009;

formerly BAY1-MW2-190

ClientID: MW2I

Lab ID: L237889-1 (P246967-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 26 2020, 10:25am Sample collector: B. Chan Date Received: Aug 26 2020, 02:04pm Sample receiver: ANG

Prep Datel: 14-SEP-20 Prep Date2: 16-SEP-20 Analyzed 16-Sep-20 14:02

Sample Comments: MW-2I; +FLD DATA: pH = 7.75; Cl2R = 0.6 mg/L; Depth to GW = 17.55

feet; GW Elevation = NA feet; Temp = 19.0 deg C; Labelled as RAW

WATER for the program.

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: SM2320B-1997 - Calculation						GroundH20	
TARGET ANALYTES							
ALKALINITY: BICARBONATE		380	mg/L	1	5		
Run ID: R306479 / Work Group No.: WG23793	3						
Prep Date1: 28-AUG-20 Analyzed 28-Aug-20	14:18						
Method: SM2340C - 2011, Titration: EDTA						GroundH20	
TARGET ANALYTES							
HARDNESS: TOTAL AS CACO3		64	mg/L	1	3		
Run ID: R306547 / Work Group No.: WG23799	6						
Prep Date1: 01-SEP-20 Analyzed 01-Sep-20	13:15						
Method: SM2540C - 2011, Dried at 180C						GroundH2O	
TARGET ANALYTES						Groundhzo	
TOTAL DISSOLVED SOLIDS		710	mq/L	2	20		
Run ID: R306541 / Work Group No.: WG23795	0	710	mg/ n	2	20		
Prep Date1: 31-AUG-20 Analyzed 31-Aug-20							
ricp bacer. St not 20 mary 200 St nag 20	03.10						
Method: SM4500-NH3 B, C - 2011, Distillat	ion & Titrat	ion				GroundH20	
TARGET ANALYTES							
AMMONIA AS N	U	0.250	mg/L	1	0.25		
Run ID: R306521 / Work Group No.: WG23796							
Prep Date1: 01-SEP-20 Analyzed 01-Sep-20	09:15						
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O	1
TARGET ANALYTES							
CALCIUM		19,400	ug/L	1.04	22.6		
IRON	В	422	ug/L	1.04	5.41	100	
POTASSIUM		7,060	ug/L	1.04	19.9		
MAGNESIUM		17,300	ug/L	1.04	5.72		
MANGANESE		138	ug/L	1.04	0.135	20	
Run ID: R307116 / Work Group No.: WG23827							
Prep Date1: 14-SEP-20 Prep Date2: 16-SEP-	20 Analyzeo	d 16-Sep-20	14:08				
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O	
TARGET ANALYTES							
SODIUM	в	207,000	ug/L	4.16	17.1		
Run ID: R307116 / Work Group No.: WG23827	6						

Report generated on: Sep 22, 2020 01:46 pm Login No.: L237556

Reported by:

KRISTI LORENSON

Laboratory Program Manager

Approved by:

Yuyun Shang

Laboratory Services Division Manager

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

1 - Sample received by the lab on: Aug 11 2020, 02:17 pm

0 - Lost Analyses

0 - Hold Time Exceedences

Turn-around-time not met

Samples included in this report:

Sample Type Collected Site Locator ClientID L237556-1 GRAB 11-Aug-2020 10:15 GW BAYSIDE BAY1-MW4 MW4

Legend to the laboratory qualifiers used in this report:

U - Analyte not detected



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

ClientID: MW4

L237556-1 (P246970-1) Lab ID: Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 11 2020, 10:15am Sample collector: C. PAGTAKHAN

Date Received: Aug 11 2020, 02:17pm Sample receiver: ANG

Sample Comments: MW-4; +FLD DATA: pH = 7.89 ; Cl2R = 0.2mg/L; Depth to GW =

12.42 feet; Temp = 25 deg C; Labelled as RAW WATER for the program.

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 8260B - Trihalometha	nes, GC/MS					GroundH20)
Subcontract data from Alpha Analytical Lab	· ·						
Comment: U - ANALYTE INCLUDED IN	ANALYSIS BUT NOT DETR	ECTED AT OF	R ABOVE MDL				
SUBCONTRACT LAB DATA							
BROMODICHLOROMETHANE	U	0.4	ug/L	1	0.4	0.5	
BROMOFORM	U	0.3	ug/L	1	0.3	0.5	
CHLOROFORM	U	0.4	ug/L	1	0.4	0.5	
DIBROMOCHLOROMETHANE	Ŭ	0.4	ug/L	1	0.4	0.5	
TRIHALOMETHANES	Ŭ	0.4	ug/L	1	0.4	0.5	
Run ID: R306511 / Work Group No.	: WG237971						
Prep Date1: 18-AUG-20 Analyzed 1	8-Aug-20 12:59						
Method: PER SUBCONTRACT LABORATO	RY REPORT - Subcontrac	ct data tra	ansmittal			GroundH20)
Subcontract data							
Comment: Original report transmi	tted to client. Copy	of report	archived w	ith data packet	•		
SUBCONTRACT LAB DATA							
DATA TRANSMITTAL							
Run ID: R307089 / Work Group No.	: WG237970						

Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal for oxygen 18

Subcontract data from Alpha Analytical Lab

Comment: Refer to sublab data report attached

Prep Date1: 16-SEP-20 Analyzed 16-Sep-20 00:00

SUBCONTRACT LAB DATA DATA TRANSMITTAL

Run ID: R307090 / Work Group No.: WG238277 Prep Datel: 08-SEP-20 Analyzed 08-Sep-20 00:00

Method: SAMPLER PROVIDED FIELD MEASUREMENTS - DATA ENTRY LIST FOR FIELD DATA GroundH20 FIELD ANALYSIS/OBSERVATION DATA PARAMETERS PН 7.89 pH units TEMPERATURE 25 1 deg C 12.42 DEPTH feet 1 CHLORINE RESIDUAL: TOTAL 0.2 mg/L 1 0.08 Run ID: R306099 / Work Group No.: WG237640 Prep Datel: 11-AUG-20 Analyzed 11-Aug-20 10:15 Method: EPA 300.1 - Ion Chromatography GroundH20

Instrument calibrated 10-AUG-20 TARGET ANALYTES CHLORIDE 49 mg/L 10 0.27 0.4 0.035 NITRATE AS N IJ 0.035 mq/L 10 SULFATE 38 10 0.3 0.5 ${\rm mg/L}$ **SURROGATE** DICHLOROACETATE 99 % recovery 10 Run ID: R306043 / Work Group No.: WG237559

Prep Datel: 11-AUG-20 Analyzed 11-Aug-20 22:09



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Site:

Locator: BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

ClientID: MW4

L237556-1 (P246970-1) Lab ID: Sample Type: GRAB (Instantaneous Grab)

Prep Date1: 12-AUG-20 Analyzed 12-Aug-20 07:30

Date Collected: Aug 11 2020, 10:15am Sample collector: C. PAGTAKHAN

Date Received: Aug 11 2020, 02:17pm Sample receiver: ANG

Sample Comments: MW-4; +FLD DATA: pH = 7.89 ; Cl2R = 0.2mg/L; Depth to GW = 25 deg C; Labelled as RAW WATER for the program. 12.42 feet; Temp =

Method Reference						Matrix	Tag
Parameter Quali	fier	Result	Units	Dilution	MDL	RL/ML	rag
rarameter quari	LICI	Result	UIIICS	DITUCION	ווטוו	KH/ PH	
Method: EPA 552.2 - Haloacetic Acids						GroundH20	
TARGET ANALYTES							
BROMOCHLOROACETIC ACID	U	0.16	uq/L	1	0.16		
BROMODICHLOROACETIC ACID	U	0.20	uq/L	1	0.2		
CHLORODIBROMOACETIC ACID	U	0.22	ug/L	1	0.22		
DIBROMOACETIC ACID	U	0.28	ug/L	1	0.28	1	
DICHLOROACETIC ACID	U	0.25	ug/L	1	0.25	1	
MONOBROMOACETIC ACID	U	0.25	ug/L	1	0.25	1	
MONOCHLOROACETIC ACID	U	0.25	ug/L	1	0.25	2	
TRICHLOROACETIC ACID	U	0.17	ug/L	1	0.17	1	
VALUE CALCULATED FROM OTHER RESULTS							
HAA(5)	U	1.0	ug/L				
HAA (5) calculation uses a zero for any i	ndividua	al HAA resul	lt less th	an the Californ	nia DLR for		
that HAA							
INTERNAL STANDARD							
1,2,3-TRICHLOROPROPANE		93	% recov	ery	1		
SURROGATE							
2,3-DIBROMOPROPIONIC ACID		96	% recov	ery	1		
Run ID: R306520 / Work Group No.: WG237626							
Prep Datel: Analyzed 13-Aug-20 23:14							
Method: SM2320B - 2011, Titration						GroundH20	
TARGET ANALYTES							
ALKALINITY: TOTAL AS CACO3		230	mg/L	1	5		
Run ID: R306053 / Work Group No.: WG237588							
Prep Date1: 12-AUG-20 Analyzed 12-Aug-20 07:59	1						
W. I. J. GVG200D 100E G. J. J. I.						g 1770.0	
Method: SM2320B-1997 - Calculation						GroundH20	
TARGET ANALYTES	U	0.10		1	0.1		
ALKALINITY: CARBONATE	U	0.10	mg/L	1	0.1		
Run ID: R306054 / Work Group No.: WG237591							
Prep Datel: 12-AUG-20 Analyzed 12-Aug-20 11:22	1						
Method: SM2320B-1997 - Calculation						GroundH2O	
TARGET ANALYTES						GI Guilaitzo	
ALKALINITY: HYDROXIDE	U	0.10	mq/L	1	0.1		
Run ID: R306054 / Work Group No.: WG237591	Ü	0.10	5/ 2	-	0.1		
Prep Date1: 12-AUG-20 Analyzed 12-Aug-20 11:22	!						
Tiep bacer in nee to many beauti may be in the							
Method: SM2320B-1997 - Calculation						GroundH20	
TARGET ANALYTES							
ALKALINITY: BICARBONATE		230	mg/L	1	5		
Run ID: R306054 / Work Group No.: WG237591			-				
Prep Date1: 12-AUG-20 Analyzed 12-Aug-20 11:22	!						
Method: SM2540C - 2011, Dried at 180C						GroundH20	
TARGET ANALYTES							
TOTAL DISSOLVED SOLIDS		390	mg/L	1	10		
Run ID: R306091 / Work Group No.: WG237585							



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site:

GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater BAY1-MW4 OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly Locator: OW-1 the same parcel as the Bayside Well on Oro Loma Property; formerly BAY1-MW5

ClientID: MW4

Lab ID: L237556-1 (P246970-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 11 2020, 10:15am Sample collector: C. PAGTAKHAN

Date Received: Aug 11 2020, 02:17pm Sample receiver: ANG

Sample Comments: MW-4; +FLD DATA: pH = 7.89 ; Cl2R = 0.2 mg/L; Depth to GW =

25 deg C; Labelled as RAW WATER for the program. 12.42 feet; Temp =

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: SM4500-NH3 B, C - 2011, Distil	lation & Titrat	ion				GroundH20	
TARGET ANALYTES							
AMMONIA AS N	U	0.250	mg/L	1	0.25		
Run ID: R306441 / Work Group No.: WG23	7868						
Prep Date1: 27-AUG-20 Analyzed 27-Aug-	20 09:45						
_							
Method: EPA 200.7 - Rev. 4.4, ICP Scan	ı					RawH2O	
TARGET ANALYTES							
CALCIUM		23,700	ug/L	1.04	22.6		
IRON		21.5	ug/L	1.04	5.41	100	
POTASSIUM		2,250	ug/L	1.04	19.9		
Run ID: R306491 / Work Group No.: WG23	7944						
Prep Date1: 25-AUG-20 Prep Date2: 30-A	UG-20 Analyzed	30-Aug-20	13:33				
Method: EPA 200.7 - Rev. 4.4, ICP Scan	ı					RawH2O	1
TARGET ANALYTES							
MAGNESIUM		8,980	ug/L	1.04	5.72		
MANGANESE		179	ug/L	1.04	0.135	20	
SODIUM	:	92,300	ug/L	1.04	4.26		
Run ID: R306502 / Work Group No.: WG23	7955						
Prep Date1: 25-AUG-20 Prep Date2: 30-A	UG-20 Analyzed	31-Aug-20	12:47				
-	-	_					

Report generated on: Sep 22, 2020 01:45 pm Login No.: L237519

Reported by:

KRISTI LORENSON

Laboratory Program Manager

Approved by:

Yuyun Shang

Laboratory Services Division Manager

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

1 - Sample received by the lab on: Aug 10 2020, 02:10 pm

0 - Lost Analyses

0 - Hold Time Exceedences

Turn-around-time not met

Samples included in this report:

Type Collected Site Locator ClientID Sample L237519-1 GRAB 10-Aug-2020 12:26 GW BAYSIDE BAY1-MW5D MW5D

Legend to the laboratory qualifiers used in this report:

U - Analyte not detected



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Locator: BAY1-MW5D Q APN 411-0003-0083 Via Barrett, San Lorenzo; Formerly BAY-MW-BARETT ClientID: MW5D

ClientID: MW5D Lab ID: L237519-1 (P246974-1) Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 10 2020, 12:26pm Sample collector: CYee
Date Received: Aug 10 2020, 02:10pm Sample receiver: CSOOHOO

Sample Comments: MW-5D; +FLD DATA: pH = 7.56; Cl2R = 0.6 mg/L; Depth to GW = 17.32 feet; GW

Elevation = feet; Temp = 22.0 deg C; Labelled as RAW WATER for the

program.

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 8260B - Trihalomethanes,	GC/MS					GroundH20	
Subcontract data from Alpha Analytical Lab							
Comment: U - ANALYTE INCLUDED IN ANA	LYSIS BUT NOT DETI	ECTED AT OR	ABOVE MDL				
SUBCONTRACT LAB DATA							
BROMODICHLOROMETHANE	U	0.4	ug/L	1	0.4	0.5	
BROMOFORM	U	0.3	ug/L	1	0.3	0.5	
CHLOROFORM	U	0.4	ug/L	1	0.4	0.5	
DIBROMOCHLOROMETHANE	U	0.4	ug/L	1	0.4	0.5	
TRIHALOMETHANES	Ū	0.4	ug/L	1	0.4	0.5	
Run ID: R306511 / Work Group No.: WG	237971						
Prep Date1: 18-AUG-20 Analyzed 18-Aug	g-20 12:23						

Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal

GroundH20

Subcontract data

Comment: Original report transmitted to client. Copy of report archived with data packet.

SUBCONTRACT LAB DATA
DATA TRANSMITTAL

Run ID: R307089 / Work Group No.: WG237970

Prep Date1: 16-SEP-20 Analyzed 16-Sep-20 00:00

Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal for oxygen 18 GroundH20

Subcontract data from Alpha Analytical Lab

Comment: Refer to sublab data report attached

SUBCONTRACT LAB DATA DATA TRANSMITTAL

Run ID: R307090 / Work Group No.: WG238277 Prep Date1: 08-SEP-20 Analyzed 08-Sep-20 00:00

Method: SAMPLER PROVIDED FIELD MEASUREMENTS - DATA ENTRY LIST FOR FIELD DATA GroundH20 FIFI D ANALYSIS/OBSERVATION DATA PARAMETERS pH units PH 7.56 TEMPERATURE 22 deg C 1 17.32 feet 1 DEPTH 0.08 CHLORINE RESIDUAL: TOTAL 0.6 mq/L 1 Run ID: R306096 / Work Group No.: WG237636 Prep Datel: 10-AUG-20 Analyzed 10-Aug-20 12:26 Method: EPA 300.1 - Ion Chromatography GroundH20

Instrument calibrated 10-ALIG-20 TARGET ANALYTES 10 0.27 CHLORIDE 84 mq/L NITRATE AS N IJ 0.035 10 0.035 0.4 mq/L 0.3 SULFATE 50 10 0.5 mg/L **SURROGATE** DICHLOROACETATE 99 % recovery 10

Run ID: R306043 / Work Group No.: WG237559

Prep Datel: 11-AUG-20 Analyzed 11-Aug-20 12:52



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Locator: BAY1-MW5D Q APN 411-0003-0083 Via Barrett, San Lorenzo; Formerly BAY-MW-BARETT

ClientID: MW5D

Lab ID: L237519-1 (P246974-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 10 2020, 12:26pm Sample collector: CYee
Date Received: Aug 10 2020, 02:10pm Sample receiver: CSOOHOO

Sample Comments: MW-5D; +FLD DATA: pH = 7.56; Cl2R = 0.6 mg/L; Depth to GW = 17.32 feet; GW

Elevation = feet; Temp = 22.0 deg C; Labelled as RAW WATER for the

program.

Method Reference						Matrix	Tag
Parameter Quali	fier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 552.2 - Haloacetic Acids						GroundH20	
TARGET ANALYTES							
BROMOCHLOROACETIC ACID	U	0.16	uq/L	1	0.16		
BROMODICHLOROACETIC ACID	U	0.20	ug/L	1	0.2		
CHLORODIBROMOACETIC ACID	U	0.22	uq/L	1	0.22		
DIBROMOACETIC ACID	IJ	0.28	ug/L	1	0.28	1	
DICHLOROACETIC ACID	U	0.25	ug/L	1	0.25	1	
MONOBROMOACETIC ACID	U	0.25	ug/L	1	0.25	1	
MONOCHLOROACETIC ACID	U	0.25	ug/L	1	0.25	2	
FRICHLOROACETIC ACID	U	0.17	ug/L	1	0.17	1	
VALUE CALCULATED FROM OTHER RESULTS	O	0.17	ug/ E	<u> </u>	0.17	-	
HAA(5)	U	1.0	uq/L				
HAA (5) calculation uses a zero for any i				an the Californ	ia DLP for		
that HAA	.IIQIVIQUE	II IIAA ICBU	IC ICSS CII	an the carrion	IA DER TOI		
NTERNAL STANDARD							
NTERNAL STANDARD L,2,3-TRICHLOROPROPANE		100	% recov	eru	1		
		100	% recov	ery	1		
SURROGATE		0.2	9		1		
2,3-DIBROMOPROPIONIC ACID		93	% recov	ery	1		
Run ID: R306520 / Work Group No.: WG237626							
Prep Date1: Analyzed 13-Aug-20 19:12							
Method: SM2320B - 2011, Titration						GroundH20	
TARGET ANALYTES							
ALKALINITY: TOTAL AS CACO3		230	mg/L	1	5		
Run ID: R306053 / Work Group No.: WG237588							
Prep Date1: 12-AUG-20 Analyzed 12-Aug-20 07:59							
Method: SM2320B-1997 - Calculation						GroundH20	
TARGET ANALYTES							
ALKALINITY: CARBONATE	U	0.10	mg/L	1	0.1		
Run ID: R306054 / Work Group No.: WG237591							
Prep Date1: 12-AUG-20 Analyzed 12-Aug-20 11:22							
Method: SM2320B-1997 - Calculation						GroundH20	
TARGET ANALYTES							
ALKALINITY: BICARBONATE		230	mg/L	1	5		
Run ID: R306054 / Work Group No.: WG237591			٥.		-		
Prep Date1: 12-AUG-20 Analyzed 12-Aug-20 11:22							
Method: SM2320B-1997 - Calculation						GroundH20	
TARGET ANALYTES							
ALKALINITY: HYDROXIDE	U	0.10	mq/L	1	0.1		
Run ID: R306054 / Work Group No.: WG237591	-	- · · · ·	٥,				
Prep Date1: 12-AUG-20 Analyzed 12-Aug-20 11:22							
Method: SM2340C - 2011, Titration: EDTA						GroundH20	
TARGET ANALYTES							
HARDNESS: TOTAL AS CACO3		140	mg/L	1	3		
Run ID: R306234 / Work Group No.: WG237753							
Prep Date1: 19-AUG-20 Analyzed 19-Aug-20 16:00							



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Site: Locator: BAY1-MW5D Q APN 411-0003-0083 Via Barrett, San Lorenzo; Formerly BAY-MW-BARETT

ClientID: MW5D

Law ID: L237519-1 (P246974-1)
Sample Type: GRAR (Tract GRAB (Instantaneous Grab)

Date Collected: Aug 10 2020, 12:26pm Sample collector: CYee Date Received: Aug 10 2020, 02:10pm Sample receiver: CSOOHOO

Sample Comments: MW-5D; +FLD DATA: pH = 7.56; C12R = 0.6 mg/L; Depth to GW = 17.32 feet; GW = 17.32 feet; C12R = 0.6

Elevation = feet; Temp = 22.0 deg C; Labelled as RAW WATER for the

program.

Method Reference						Matrix Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML
Method: SM2540C - 2011, Dried at 180C						GroundH2O
TARGET ANALYTES						
TOTAL DISSOLVED SOLIDS		460	mg/L	1	10	
Run ID: R306091 / Work Group No.: WG23						
Prep Date1: 12-AUG-20 Analyzed 12-Aug-	-20 07:30					
Method: SM4500-NH3 B, C - 2011, Distil	lation & Titrati	on				GroundH20
TARGET ANALYTES	liacion & liciaci	.011				Groundiizo
AMMONIA AS N	Ū	0.250	mq/L	1	0.25	
Run ID: R306441 / Work Group No.: WG23		0.250	5/ 2	-	0.25	
Prep Date1: 27-AUG-20 Analyzed 27-Aug-						
Method: EPA 200.7 - Rev. 4.4, ICP Scar	1					RawH2O
TARGET ANALYTES						
CALCIUM	3	32,300	ug/L	1.04	22.6	
IRON		197	ug/L	1.04	5.41	100
POTASSIUM		2,200	ug/L	1.04	19.9	
MAGNESIUM		8,250	ug/L	1.04	5.72	
MANGANESE		179	ug/L	1.04	0.135	20
Run ID: R306491 / Work Group No.: WG23						
Prep Date1: 25-AUG-20 Prep Date2: 30-A	AUG-20 Analyzed	30-Aug-20	12:25			
Method: EPA 200.7 - Rev. 4.4, ICP Scar	1					RawH2O 1
TARGET ANALYTES						TOWITZO I
SODIUM	g	9,600	uq/L	2.08	8.53	
Run ID: R306502 / Work Group No.: WG23			5/-2	=	2.33	

Prep Date1: 25-AUG-20 Prep Date2: 30-AUG-20 Analyzed 31-Aug-20 11:44

Report generated on: Sep 22, 2020 01:46 pm Login No.: L237613

Reported by:

KRISTI LORENSON

Laboratory Program Manager

Approved by:

Yuyun Shang

Laboratory Services Division Manager

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

1 - Sample received by the lab on: Aug 13 2020, 02:14 pm

0 - Lost Analyses

1 - Hold Time Exceedences

Turn-around-time not met

Samples included in this report:

Type Collected Locator ClientID Sample Site L237613-1 GRAB 13-Aug-2020 12:40 GW BAYSIDE BAY1-MW6 MW6

Legend to the laboratory qualifiers used in this report:

H - Analyzed past hold time

U - Analyte not detected



Lab ID:

EAST BAY MUNICIPAL UTILITY DISTRICT Laboratory Services Division PO Box 24055, MS 59, Oakland, CA 94623 Phone (510)287-1432 Fax (510)465-5462

Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Locator: BAY1-MW6 R APN 438-0010-003 2364 Baumann Ave., San Lorenzo; formerly BAY-MW-WORTHLEY

ClientID: MW6

L237613-1 (P246975-1) Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 13 2020, 12:40pm Sample collector: B. Chan Date Received: Aug 13 2020, 02:14pm Sample receiver: VNGUYEN

Sample Comments: MW-6; +FLD DATA: pH = 7.40; Cl2R = 0.3 mg/L; Depth to GW = N/A (Indicator/

Battery not functioning); GW Elevation = N/A; Temp = 23.2 deg C. Labelled

as RAW WATER for the program.

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 8260B - Trihalomethanes,	GC/MS					GroundH20	
Subcontract data from Alpha Analytical Lab							
Comment: U - ANALYTE INCLUDED IN ANA	LYSIS BUT NOT DETE	ECTED AT OF	ABOVE MDL				
SUBCONTRACT LAB DATA							
BROMODICHLOROMETHANE	U	0.4	ug/L	1	0.4	0.5	
BROMOFORM	U	0.3	ug/L	1	0.3	0.5	
CHLOROFORM	U	0.4	ug/L	1	0.4	0.5	
DIBROMOCHLOROMETHANE	U	0.4	ug/L	1	0.4	0.5	
TRIHALOMETHANES	U	0.4	ug/L	1	0.4	0.5	
Run ID: R306511 / Work Group No.: WG	237971						
Prep Date1: 18-AUG-20 Analyzed 18-Aug	g-20 11:48						

GroundH20

GroundH20

Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal for oxygen 18

Subcontract data from Alpha Analytical Lab

Comment: Refer to sublab data report attached

SUBCONTRACT LAB DATA DATA TRANSMITTAL

Run ID: R307090 / Work Group No.: WG238277 Prep Date1: 08-SEP-20 Analyzed 08-Sep-20 00:00

Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal

Comment: Original report transmitted to client. Copy of report archived with data packet.

SUBCONTRACT LAB DATA DATA TRANSMITTAL

Run ID: R307089 / Work Group No.: WG237970 Prep Datel: 16-SEP-20 Analyzed 16-Sep-20 00:00

Method: SAMPLER PROVIDED FIELD MEASUREMENTS - DATA ENTRY LIST FOR FIELD DATA GroundH20 FIFI D ANALYSIS/OBSERVATION DATA PARAMETERS PH 7.4 pH units TEMPERATURE 23.2 dea C 1 CHLORINE RESIDUAL: TOTAL 0.3 mg/L 1 0.08 Run ID: R306119 / Work Group No.: WG237664 Prep Date1: 13-AUG-20 Analyzed 13-Aug-20 12:40

Method: EPA 300.1 - Ion Chromatography GroundH20 Instrument calibrated 10-AUG-20 TARGET ANALYTES CHLORIDE mg/L 10 0.27 54 0.035 0.4 NITRATE AS N U,H 0.035 mq/L 10 SULFATE 0.3 0.5 48 ${\rm mg/L}$ 10 **SURROGATE** DICHLOROACETATE 97 % recovery 10

Run ID: R306191 / Work Group No.: WG237687

Prep Datel: 17-AUG-20 Analyzed 17-Aug-20 23:19



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater
Locator: BAY1-MW6 R APN 438-0010-003 2364 Baumann Ave., San Lorenzo; formerly BAY-MW-WORTHLEY

ClientID: MW6

Lab ID: L237613-1 (P246975-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 13 2020, 12:40pm Sample collector: B. Chan Date Received: Aug 13 2020, 02:14pm Sample receiver: VNGUYEN

Sample Comments: MW-6; +FLD DATA: pH = 7.40; Cl2R = 0.3 mg/L; Depth to GW = N/A (Indicator/

Battery not functioning); GW Elevation = N/A; Temp = 23.2 deg C. Labelled

as RAW WATER for the program.

athed Defender						Materia. To
ethod Reference			1.	-12		Matrix Tag
arameter Qua	lifier	Result	Units	Dilution	MDL	RL/ML
ethod: EPA 552.2 - Haloacetic Acids						GroundH20
ARGET ANALYTES						
ROMOCHLOROACETIC ACID	U	0.16	ug/L	1	0.16	
ROMODICHLOROACETIC ACID	U	0.20	ug/L	1	0.2	
HLORODIBROMOACETIC ACID	U	0.22	ug/L	1	0.22	
IBROMOACETIC ACID	U	0.28	ug/L	1	0.28	1
ICHLOROACETIC ACID	U	0.25	ug/L	1	0.25	1
ONOBROMOACETIC ACID	U	0.25	ug/L	1	0.25	1
ONOCHLOROACETIC ACID	Ū	0.25	ug/L	1	0.25	2
RIBROMOACETIC ACID	Ū	0.35	ug/L	1	0.35	_
RICHLOROACETIC ACID	Ū	0.17	ug/L	1	0.17	1
ALUE CALCULATED FROM OTHER RESULTS	Ü	0.17	ug/1	±	0.17	<u> </u>
AA(5)	U	1.0	uq/L			
HAA (5) calculation uses a zero for any				an the Californ	ia DIP for	
that HAA	Inaiviau	ai haa resu	it less ti	an the Callforn	IA DER TOT	
AA(9)	U	1.0	ug/L			
ITERNAL STANDARD						
,2,3-TRICHLOROPROPANE		97	% recov	rery	1	
URROGATE						
,3-DIBROMOPROPIONIC ACID		100	% recov	rery	1	
un ID: R306534 / Work Group No.: WG237778						
rep Datel: Analyzed 21-Aug-20 00:43						
ethod: SM2320B - 2011, Titration						GroundH20
ARGET ANALYTES						
LKALINITY: TOTAL AS CACO3		230	mg/L	1	5	
un ID: R306113 / Work Group No.: WG237649						
rep Datel: 14-AUG-20 Analyzed 14-Aug-20 08:	15					
ethod: SM2320B-1997 - Calculation						GroundH2O
ARGET ANALYTES						
LKALINITY: BICARBONATE		230	mg/L	1	5	
un ID: R306123 / Work Group No.: WG237658						
rep Datel: 14-AUG-20 Analyzed 14-Aug-20 13:	25					
ethod: SM2320B-1997 - Calculation						GroundH2O
ARGET ANALYTES						
LKALINITY: HYDROXIDE	U	0.10	mg/L	1	0.1	
un ID: R306123 / Work Group No.: WG237658	J	3.10		-	V. ±	
rep Date1: 14-AUG-20 Analyzed 14-Aug-20 13:	25					
rep bacer. It not 20 mary2ed It-Mug-20 13.	23					
ethod: SM2320B-1997 - Calculation						GroundH2O
ARGET ANALYTES						
ARGET ANALYTES LKALINITY: CARBONATE	U	0.10	mg/L	1	0.1	
	Ū	0.10	mg/L	1	0.1	



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater Site: Locator: BAY1-MW6 R APN 438-0010-003 2364 Baumann Ave., San Lorenzo; formerly BAY-MW-WORTHLEY

ClientID: MW6

Lab ID: L237613-1 (P246975-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 13 2020, 12:40pm Sample collector: B. Chan Date Received: Aug 13 2020, 02:14pm Sample receiver: VNGUYEN

Sample Comments: MW-6; +FLD DATA: pH = 7.40; Cl2R = 0.3 mg/L; Depth to GW = N/A (Indicator/

Battery not functioning); GW Elevation = N/A; Temp = 23.2 deg C. Labelled

as RAW WATER for the program.

v 11 1 7 5							_
Method Reference		_				Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: SM2340C - 2011, Titration: EDTA						GroundH20	
TARGET ANALYTES							
HARDNESS: TOTAL AS CACO3		120	mg/L	1	3		
Run ID: R306234 / Work Group No.: WG237							
Prep Date1: 19-AUG-20 Analyzed 19-Aug-2	0 16:00						
Method: SM2540C - 2011, Dried at 180C						GroundH20	
TARGET ANALYTES							
TOTAL DISSOLVED SOLIDS		420	mg/L	1	10		
Run ID: R306372 / Work Group No.: WG237							
Prep Date1: 20-AUG-20 Analyzed 20-Aug-2	0 06:45						
Method: SM4500-NH3 B, C - 2011, Distilla	ation & Titrat:	ion				GroundH20	
TARGET ANALYTES							
AMMONIA AS N	Ŭ	0.250	mg/L	1	0.25		
Run ID: R306441 / Work Group No.: WG237							
Prep Date1: 27-AUG-20 Analyzed 27-Aug-2	0 09:45						
							•
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O	2
TARGET ANALYTES							
SODIUM		02,000	ug/L	2.08	8.53		
Run ID: R306502 / Work Group No.: WG237							
Prep Date1: 25-AUG-20 Prep Date2: 30-AUG	G-20 Analyzed	31-Aug-20	13:21				
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O	1
TARGET ANALYTES							
MAGNESIUM		7,540	ug/L	1.04	5.72		
MANGANESE		176	ug/L	1.04	0.135	20	
Run ID: R306502 / Work Group No.: WG237							
Prep Date1: 25-AUG-20 Prep Date2: 30-AUG	G-20 Analyzed	31-Aug-20	12:53				
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O	
TARGET ANALYTES							
CALCIUM		31,200	ug/L	1.04	22.6		
IRON		20.5	ug/L	1.04	5.41	100	
POTASSIUM		2,060	ug/L	1.04	19.9		
Run ID: R306491 / Work Group No.: WG237							
Prep Date1: 25-AUG-20 Prep Date2: 30-AUG	G-20 Analyzed	30-Aug-20	14:21				

Report generated on: Sep 11, 2020 02:04 pm Login No.: L237432

Reported by:

KRISTI LORENSON

Laboratory Program Manager

Approved by:

Yuyun Shang

Laboratory Services Division Manager

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

1 - Sample received by the lab on: Aug 05 2020, 03:09 pm

0 - Lost Analyses

0 - Hold Time Exceedences

Turn-around-time not met

Samples included in this report:

Sample Type Collected Site Locator ClientID L237432-1 GRAB 05-Aug-2020 12:40 GW BAYSIDE BAY1-MW7 MW7

Legend to the laboratory qualifiers used in this report:

U - Analyte not detected



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater

Locator: BAY1-MW7 S APN 411-0078-001 Via Buena Vista; formerly BAY-MW-SL PARK

ClientID: MW7

L237432-1 (P246976-1) Lab ID: Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 05 2020, 12:40pm Sample collector: D. Williams

Date Received: Aug 05 2020, 03:09pm Sample receiver: ANG

Sample Comments: MW-7; +FLD DATA: pH = 7.06 ; Cl2R = 0.2 mg/L; Depth to GW =

22 11 feet; GW Elevation = feet; Temp = deg C; Labelled

as RAW WATER for the program.

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 8260B - Trihalomethanes,	GC/MS					GroundH20	
Subcontract data from Alpha Analytical Lab							
Comment: U - ANALYTE INCLUDED IN ANA	LYSIS BUT NOT DETE	ECTED AT OR	ABOVE MDL				
SUBCONTRACT LAB DATA							
BROMODICHLOROMETHANE	U	0.4	ug/L	1	0.4	0.5	
BROMOFORM	U	0.3	ug/L	1	0.3	0.5	
CHLOROFORM	U	0.4	ug/L	1	0.4	0.5	
DIBROMOCHLOROMETHANE	U	0.4	ug/L	1	0.4	0.5	
TRIHALOMETHANES	U	0.4	ug/L	1	0.4	0.5	
Run ID: R306437 / Work Group No.: WG	237896						
Prep Date1: 12-AUG-20 Analyzed 13-Aug	g-20 06:09						

Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal

GroundH20

Subcontract data

Comment: Original report transmitted to client. Copy of report archived with data packet.

SUBCONTRACT LAB DATA DATA TRANSMITTAL

Run ID: R306431 / Work Group No.: WG237893

Prep Date1: 27-AUG-20 Analyzed 27-Aug-20 00:00

GroundH20 Method: PER SUBCONTRACT LABORATORY REPORT - Subcontract data transmittal for oxygen 18

Subcontract data from Alpha Analytical Lab

Comment: Refer to sublab data report attached

SUBCONTRACT LAB DATA DATA TRANSMITTAL

Run ID: R306634 / Work Group No.: WG238086

Prep Datel: 01-SEP-20 Analyzed 01-Sep-20 00:00

Method: SAMPLER PROVIDED FIELD MEASUREMENTS - DATA ENTRY LIST FOR FIELD DATA GroundH20 FIFI D ANALYSIS/OBSERVATION DATA PARAMETERS

PH

pH units 7.06 TEMPERATURE deg C 22 1 DEPTH 11 feet 1 CHLORINE RESIDUAL: TOTAL 0.2 mq/L 1

Prep Datel: 05-AUG-20 Analyzed 05-Aug-20 12:40

0.08 Run ID: R305976 / Work Group No.: WG237512

Method: EPA 300.1 - Ion Chromatography GroundH20 Instrument calibrated 16-.II II -20

TARGET ANALYTES

25 0.68 CHLORIDE 93 mq/L NITRATE AS N IJ 0.088 25 0.088 0.4 mq/L 25 0.75 SULFATE 53 mg/L 0.5 **SURROGATE**

DICHLOROACETATE 96 % recovery 25

Run ID: R305946 / Work Group No.: WG237459

Prep Datel: 05-AUG-20 Analyzed 06-Aug-20 08:33



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater BAY1-MW7 S APN 411-0078-001 Via Buena Vista; formerly BAY-MW-SL PARK Site:

Locator:

ClientID: MW7

Lab ID: L237432-1 (P246976-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 05 2020, 12:40pm Sample collector: D. Williams

Date Received: Aug 05 2020, 03:09pm Sample receiver: ANG

Sample Comments: MW-7; +FLD DATA: pH = 7.06 ; Cl2R = 0.2 mg/L; Depth to GW =

— feet; Temp = 22 feet; GW Elevation = deg C; Labelled

as RAW WATER for the program.

Method Reference						Matrix Tag
Parameter Qua	alifier	Result	Units	Dilution	MDL	RL/ML
Method: EPA 552.2 - Haloacetic Acids						GroundH2O
TARGET ANALYTES						
BROMOCHLOROACETIC ACID	U	0.16	ug/L	1	0.16	
BROMODICHLOROACETIC ACID	Ū	0.20	ug/L	1	0.2	
CHLORODIBROMOACETIC ACID	Ū	0.22	ug/L	1	0.22	
DIBROMOACETIC ACID	Ū	0.28	ug/L	1	0.28	1
DICHLOROACETIC ACID	Ū	0.25	ug/L	1	0.25	1
MONOBROMOACETIC ACID	Ū	0.25	ug/L	1	0.25	1
MONOCHLOROACETIC ACID	Ū	0.25	ug/L	1	0.25	2
FRICHLOROACETIC ACID	Ū	0.17	ug/L	1	0.17	1
VALUE CALCULATED FROM OTHER RESULTS	Ü	0.17	ug/ L	±	0.17	<u> </u>
HAA(5)	U	1.0	ug/L			
HAA (5) calculation uses a zero for an			٥.	an the Californ	ia DLR for	
that HAA	y individu	ai iiAA icsu	it icss cii	an the carrion	Id DER TOI	
INTERNAL STANDARD						
1,2,3-TRICHLOROPROPANE		100	% recov	erv	1	
SURROGATE		100	. TECOA	CT À	Δ.	
SURROGATE 2,3-DIBROMOPROPIONIC ACID		97	% recov	eru	1	
Run ID: R306114 / Work Group No.: WG237494		97	% recov	ery	1	
-						
Prep Date1: Analyzed 10-Aug-20 20:26						
Method: SM2320B - 2011, Titration						GroundH2O
TARGET ANALYTES						
ALKALINITY: TOTAL AS CACO3		240	mg/L	1	5	
Run ID: R306004 / Work Group No.: WG237532						
Prep Date1: 10-AUG-20 Analyzed 10-Aug-20 08	:59					
Method: SM2320B-1997 - Calculation						GroundH2O
TARGET ANALYTES						
ALKALINITY: CARBONATE	Ū	0.10	mg/L	1	0.1	
Run ID: R306014 / Work Group No.: WG237551						
Prep Date1: 11-AUG-20 Analyzed 11-Aug-20 07	:17					
Method: SM2320B-1997 - Calculation						GroundH20
TARGET ANALYTES						
ALKALINITY: BICARBONATE		240	mg/L	1	5	
Run ID: R306014 / Work Group No.: WG237551			٥.			
Prep Datel: 11-AUG-20 Analyzed 11-Aug-20 07	:17					
Method: SM2320B-1997 - Calculation						GroundH2O
TARGET ANALYTES						
ALKALINITY: HYDROXIDE	U	0.10	mg/L	1	0.1	
Run ID: R306014 / Work Group No.: WG237551						
Prep Datel: 11-AUG-20 Analyzed 11-Aug-20 07	:17					
Method: SM2340C - 2011, Titration: EDTA						GroundH2O
TARGET ANALYTES						
HARDNESS: TOTAL AS CACO3		140	mg/L	1	3	
Run ID: R306234 / Work Group No.: WG237753		140	шg/ ц	_	5	
Prep Date1: 19-AUG-20 Analyzed 19-Aug-20 16	:00					
10p Dacci: 13-A0G-20 Analy2eu 13-Aug-20 10	- 0 0					



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

GW BAYSIDE East Bay Ground Water Injection/Extraction Project Bayside Groundwater BAY1-MW7 S APN 411-0078-001 Via Buena Vista; formerly BAY-MW-SL PARK Site:

Locator:

ClientID: MW7

Lab ID: L237432-1 (P246976-1)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 05 2020, 12:40pm Sample collector: D. Williams

Date Received: Aug 05 2020, 03:09pm Sample receiver: ANG

Sample Comments: MW-7; +FLD DATA: pH = 7.06 ; Cl2R = 0.2 mg/L; Depth to GW =

— feet; Temp = 22 11 feet; GW Elevation = deg C; Labelled

as RAW WATER for the program.

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: SM2540C - 2011, Dried at 180C						GroundH20	
TARGET ANALYTES						Groundiizo	
TOTAL DISSOLVED SOLIDS		500	mq/L	2	20		
Run ID: R305970 / Work Group No.: WG2374	162	500	шg/ L	2	20		
Prep Date1: 06-AUG-20 Analyzed 06-Aug-20							
riep Datei: 00-A0G-20 Analyzed 00-Aug-20	00.43						
Method: SM4500-NH3 B, C - 2011, Distilla	tion & Titrat	ion				GroundH20	
TARGET ANALYTES							
AMMONIA AS N	U	0.250	mg/L	1	0.25		
Run ID: R306093 / Work Group No.: WG2376	808						
Prep Date1: 13-AUG-20 Analyzed 13-Aug-20	10:52						
Mathada EDN 200 7 Days 4.4 TOD Green						D IIO	
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O	
TARGET ANALYTES			/-	4 16	1.0.1		
SODIUM		21,000	ug/L	4.16	17.1		
Run ID: R306357 / Work Group No.: WG2378		04 7 00	15.24				
Prep Date1: 11-AUG-20 Prep Date2: 24-AUG	3-20 Analyzed	24-Aug-20	15:34				
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O	1
TARGET ANALYTES							
CALCIUM		36,600	ug/L	1.04	22.6		
IRON		37.2	ug/L	1.04	5.41	100	
POTASSIUM		2,150	ug/L	1.04	19.9		
MAGNESIUM		9,380	ug/L	1.04	5.72		
MANGANESE		237	ug/L	1.04	0.135	20	
Run ID: R306357 / Work Group No.: WG2378	315						
Prep Date1: 11-AUG-20 Prep Date2: 24-AUG	3-20 Analyzed	24-Aug-20	15:40				

Report generated on: Oct 22, 2020 09:09 pm Login No.: L237848

Reported by:

KRISTI LORENSON

Laboratory Program Manager

Approved by:

Yuyun Shang

Laboratory Services Division Manager

LSR B455-0706-1

Project Title: BAYSIDE GROUND WATER PROJECT

Login Performance Summary

4 - Samples received by the lab on: Aug 25 2020, 01:25 pm

0 - Lost Analyses

0 - Hold Time Exceedences

Turn-around-time not met

Samples included in this report:

Sample	Type Collected	Site	Locator	ClientID
L237848-1	GRAB 25-Aug-2020 10:50	WTP BAYSIDE	BAY WELL HEAD	_
L237848-2	GRAB 25-Aug-2020 11:20	WTP BAYSIDE	BAY WELL HEAD	-
L237848-3	QCFB 25-Aug-2020 11:15	FIELD QC	COLLECTION QC	-
L237848-4	QCTB 25-Aug-2020 11:15	FIELD QC	COLLECTION QC	_

Legend to the laboratory qualifiers used in this report:

< - Less than

D - Surrogate spike outside of control limits

 ${\tt E} \ {\tt -} \ {\tt Estimated} \ {\tt value}, \ {\tt concentration} \ {\tt outside} \ {\tt calibration} \ {\tt range}. \ {\tt For} \ {\tt SIP}, \ {\tt E=DNQ}, \ {\tt Estimated} \ {\tt Concentration}.$

N - Spike recovery outside of control limits

U - Analyte not detected



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo Site:

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L237848-1 (P246700-1) Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 25 2020, 10:50am Sample collector: C. PAGTAKHAN Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: Annual Bayside Sampling per DDW T22 and WDR; +FLD DATA: pH = 8.10 CL2R

= 0.2 mg/L (MDL=0.02 mg/L)

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: SAMPLER PROVIDED FIELD MEASUREM	ENTS - DATA ENT	דפע ז.זפיי די	י דובו. תמדה			RawH2O	
FIELD ANALYSIS/OBSERVATION DATA PARAMETERS	ENIO - DAIA ENI	TKI DISI FUR	. PIBU DAIA			Nawnzu	
PH		8.1	pH units	1			
CHLORINE RESIDUAL: TOTAL		0.2	mg/L	1	0.02		
Run ID: R306625 / Work Group No.: WG238	070	0.2	шg/ь	1	0.02		
Prep Date1: 25-AUG-20 Analyzed 25-Aug-2							
Method: EPA 524.4 - Volatile Organics,	GC/MS					RawH2O	
TARGET ANALYTES			-				
ALLYL CHLORIDE	Ū	0.51	ug/L	1	0.51		
TERT-AMYL METHYL ETHER	Ŭ	0.15	ug/L	1	0.15	3	
BENZENE	Ŭ	0.10	ug/L	1	0.1	0.5	
BROMOBENZENE	Ū	0.091	ug/L	1	0.091		
BROMOCHLOROMETHANE	E	0.36	ug/L	1	0.2		
BROMODICHLOROMETHANE		2.0	ug/L	1	0.11		
BROMOFORM	U	0.26	ug/L	1	0.26		
BROMOMETHANE	Ŭ	2.3	ug/L	1	2.3		
TERT-BUTYL ALCOHOL	Ŭ	0.55	ug/L	1	0.55	2	
N-BUTYLBENZENE	U	0.076	ug/L	1	0.076		
SEC-BUTYLBENZENE	U	0.086	ug/L	1	0.086		
FERT-BUTYLBENZENE	U	0.15	ug/L	1	0.15		
CARBON DISULFIDE	U	0.16	ug/L	1	0.16		
CARBON TETRACHLORIDE	Ū	0.12	ug/L	1	0.12	0.5	
CHLOROBENZENE	Ū	0.067	ug/L	1	0.067	0.5	
l-CHLOROBUTANE	Ū	0.085	ug/L	1	0.085		
CHLOROFORM	-	28	ug/L	1	0.12		
CHLOROMETHANE	U	0.36	ug/L	1	0.36		
O-CHLOROTOLUENE	Ū	0.093	ug/L ug/L	1	0.093		
P-CHLOROTOLUENE	Ū	0.083	ug/L ug/L	1	0.083		
DIBROMOCHLOROMETHANE	E	0.50	ug/L ug/L	1	0.17		
DIBROMOCHLOROMETHANE DIBROMOMETHANE	U	0.14	ug/L ug/L	1	0.14		
	Ū		_	1		0.5	
1,2-DICHLOROBENZENE		0.070	ug/L		0.07	0.5	
1,3-DICHLOROBENZENE	Ū	0.064	ug/L	1	0.064	0 5	
1,4-DICHLOROBENZENE	U	0.058	ug/L	1	0.058	0.5	
DICHLORODIFLUOROMETHANE	U	0.23	ug/L	1	0.23	0.5	
1,1-DICHLOROETHANE	Ū	0.15	ug/L	1	0.15	0.5	
1,2-DICHLOROETHANE	Ū	0.10	ug/L	1	0.1	0.5	
1,1-DICHLOROETHENE	Ū	0.15	ug/L	1	0.15	0.5	
CIS-1,2-DICHLOROETHENE	Ū	0.14	ug/L	1	0.14	0.5	
TRANS-1,2-DICHLOROETHENE	Ū	0.093	ug/L	1	0.093	0.5	
L,2-DICHLOROPROPANE	U	0.10	ug/L	1	0.1	0.5	
1,3-DICHLOROPROPANE	U	0.071	ug/L	1	0.071		
1,1-DICHLOROPROPENE	U	0.089	ug/L	1	0.089		
CIS-1,3-DICHLOROPROPENE	U	0.084	ug/L	1	0.084	0.5	
TRANS-1,3-DICHLOROPROPENE	Ū	0.068	ug/L	1	0.068	0.5	
DIISOPROPYL ETHER	U	0.087	ug/L	1	0.087		
ETHYL BENZENE	U	0.092	ug/L	1	0.092	0.5	
ETHYL ETHER	Ŭ	0.17	ug/L	1	0.17		
ETHYLMETHACRYLATE	Ū	0.11	ug/L	1	0.11		
ETHYL-T-BUTYL ETHER	Ū	0.080	ug/L	1	0.08	3	
FLUOROTRICHLOROMETHANE	Ū	0.19	ug/L	1	0.19	5	
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	Ū	0.19	ug/L	1	0.17	10	
						± 0	
HEXACHLOROBUTADIENE	Ū	0.093	ug/L	1	0.093		



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo Site:

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

L237848-1 (P246700-1) Lab ID: Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 25 2020, 10:50am Sample collector: C. PAGTAKHAN Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: Annual Bayside Sampling per DDW T22 and WDR; +FLD DATA: pH = 8.10 CL2R

= 0.2 mg/L (MDL=0.02 mg/L)

ethod Reference						Matrix	Tag
arameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
EXACHLOROETHANE	U	0.17	ug/L	1	0.17		
ODOMETHANE	U	2.7	ug/L	1	2.7		
SOPROPYLBENZENE	U	0.086	ug/L	1	0.086		
-ISOPROPYLTOLUENE	U	0.080	ug/L	1	0.08		
ETHYLENE CHLORIDE		1.2	ug/L	1	0.15	0.5	
ETHYL-T-BUTYL ETHER	U	0.058	ug/L	1	0.058	3	
APHTHALENE	U	0.084	ug/L	1	0.084		
ENTACHLOROETHANE	U	0.25	ug/L	1	0.25		
-PROPYLBENZENE	U	0.078	ug/L	1	0.078		
TYRENE	U	0.11	ug/L	1	0.11	0.5	
,1,1,2-TETRACHLOROETHANE	U	0.073	ug/L	1	0.073		
,1,2,2-TETRACHLOROETHANE	U	0.11	ug/L	1	0.11	0.5	
ETRACHLOROETHENE	U	0.12	ug/L	1	0.12	0.5	
ETRAHYDROFURAN	U	0.24	ug/L	1	0.24		
OLUENE	U	0.075	ug/L	1	0.075	0.5	
,2,3-TRICHLOROBENZENE	U	0.082	ug/L	1	0.082		
,2,4-TRICHLOROBENZENE	U	0.10	ug/L	1	0.1	0.5	
,1,1-TRICHLOROETHANE	U	0.13	ug/L	1	0.13	0.5	
,1,2-TRICHLOROETHANE	U	0.11	ug/L	1	0.11	0.5	
RICHLOROETHENE	Ŭ	0.12	ug/L	1	0.12	0.5	
,2,4-TRIMETHYLBENZENE	Ŭ	0.088	ug/L	1	0.088		
,3,5-TRIMETHYLBENZENE	Ū	0.071	ug/L	1	0.071		
INYL CHLORIDE	U	0.20	ug/L	1	0.2	0.5	
-XYLENE	U	0.079	ug/L	1	0.079	0.5	
+P XYLENES	Ū	0.18	ug/L	1	0.18	0.5	
ALUE(S) USED TO CALCULATE OTHER VALUE(S)							
OTAL 1,3-DICHLOROPROPENES	U	0.50	ug/L	1		0.5	
OTAL XYLENES	U	0.50	ug/L	1	0.22	0.5	
ITERNAL STANDARD							
,4-DIFLUOROBENZENE		80.9	% recov	ery 1			
4-1,4-DICHLOROBENZENE		81.8	% recov	ery 1			
5-CHLOROBENZENE		81.3	% recov	ery 1			
URROGATE							
-BROMOFLUOROBENZENE		95.2	% recov	ery 1			
3-METHYL-T-BUTYL-ETHER		94.8	% recov	ery 1			
4-1,2-DICHLOROBENZENE		106	% recov	ery 1			
un ID: R306412 / Work Group No.: WG237	7838						
rep Date1: 25-AUG-20 Analyzed 25-Aug-2	20 15:17						
ethod: EPA 525.2 - Semivolatile Organi	cs, GC/MS					RawH2O	1
ARGET ANALYTES							
OXAPHENE	U	0.50	ug/L	1	0.5	1	
ITERNAL STANDARD							
10-ACENAPHTHENE		74.0	% recov	ery	1		
10-PHENANTHRENE		83.5	% recov	ery	1		
12-CHRYSENE		79.4	% recov	ery	1		
URROGATE	D	30	% recov	ery	1		
<i>URROGATE</i> 12-PERYLENE	ע			=	1		
	D	110	% recov	ery	_		
12-PERYLENE	D	110 160	% recov % recov	=	1		
12-PERYLENE ,3-DIMETHYL-2-NITROBENZENE				ery	-		



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo Site:

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L237848-1 (P246700-1) Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 25 2020, 10:50am Sample collector: C. PAGTAKHAN Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: Annual Bayside Sampling per DDW T22 and WDR; +FLD DATA: pH = 8.10 CL2R

Method Reference						Matrix Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML
Method: EPA 525.2 - Semivolatile Or	ganics, GC/MS					RawH2O
TARGET ANALYTES	J , ,					
ACENAPHTHYLENE	Ū	0.036	ug/L	1	0.036	
ALACHLOR	Ū	0.021	ug/L	1	0.021	1
ALDRIN	Ū	0.011	ug/L	1	0.011	
ANTHRACENE	U,N	0.042	ug/L	1	0.042	
ATRAZINE	Ū	0.026	ug/L	1	0.026	0.5
BENZO(A)ANTHRACENE	U,N	0.017	ug/L	1	0.017	
BENZO(B)FLUORANTHENE	Ŭ	0.014	ug/L	1	0.014	
BENZO(K)FLUORANTHENE	Ŭ	0.013	ug/L	1	0.013	
BENZO(A)PYRENE	U,N	0.011	ug/L	1	0.011	0.1
BENZO(GHI)PERYLENE	Ŭ	0.016	ug/L	1	0.016	
BIS(2-ETHYLHEXYL)ADIPATE	Ŭ	0.029	ug/L	1	0.029	5
BIS(2-ETHYLHEXYL)PHTHALATE	Ū	0.059	ug/L	1	0.059	3
ALPHA BHC	Ŭ	0.012	ug/L	1	0.012	
BETA BHC	Ū	0.020	ug/L	1	0.02	
DELTA BHC	Ŭ	0.012	ug/L	1	0.012	
GAMMA BHC	Ū	0.017	ug/L	1	0.017	0.2
BROMACIL	U,N	0.018	ug/L	1	0.018	
BUTACHLOR	Ū	0.026	ug/L	1	0.026	
BUTYLBENZYL PHTHALATE	Ŭ	0.026	ug/L	1	0.026	
CHLORDANE	Ŭ	0.10	ug/L	1	0.1	0.1
CHLORDANE-ALPHA	Ŭ	0.018	ug/L	1	0.018	
CHLORDANE-GAMMA	Ŭ	0.018	ug/L	1	0.018	
CHLOROBENZILATE	U,N	0.047	ug/L	1	0.047	
CHLORONEB	Ŭ	0.052	ug/L	1	0.052	
CHLOROTHALONIL	Ŭ	0.032	ug/L	1	0.032	
CHRYSENE	Ŭ	0.012	ug/L	1	0.012	
DCPA	Ŭ	0.028	ug/L	1	0.028	
4,4'-DDD	Ŭ	0.022	ug/L	1	0.022	
4,4'-DDE	Ŭ	0.025	ug/L	1	0.025	
4,4'-DDT	Ŭ	0.023	ug/L	1	0.023	
DIBENZO(A,H)ANTHRACENE	Ŭ	0.014	ug/L	1	0.014	
DI-N-BUTYL PHTHALATE	Ŭ	0.028	ug/L	1	0.028	
DIELDRIN	U	0.023	ug/L	1	0.023	
DIETHYL PHTHALATE	U	0.014	ug/L	1	0.014	
DIMETHYL PHTHALATE	Ŭ	0.010	ug/L	1	0.01	
2,4-DINITROTOLUENE	U	0.025	ug/L	1	0.025	
2,6-DINITROTOLUENE	Ŭ	0.019	ug/L	1	0.019	
ALPHA ENDOSULFAN	Ŭ	0.012	ug/L	1	0.012	
BETA ENDOSULFAN	U	0.019	ug/L	1	0.019	
ENDOSULFAN SULFATE	U	0.035	ug/L	1	0.035	
ENDRIN	U,N	0.031	ug/L	1	0.031	0.1
ENDRIN ALDEHYDE	U	0.029	ug/L	1	0.029	
EPTC	U	0.010	ug/L	1	0.01	
ETRIDIAZOLE	Ŭ	0.010	ug/L	1	0.01	
FLUORENE	U	0.022	ug/L	1	0.022	
HEPTACHLOR	U	0.0060	ug/L	1	0.006	0.01
HEPTACHLOR EPOXIDE	U	0.0060	ug/L	1	0.006	0.01
HEXACHLOROBENZENE	U	0.018	ug/L	1	0.018	0.5
HEXACHLOROCYCLOPENTADIENE	U	0.019	ug/L	1	0.019	1
HEXAZINONE	U	0.035	ug/L	1	0.035	
INDENO(1,2,3-CD)PYRENE	U	0.013	ug/L	1	0.013	



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo Site:

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L237848-1 (P246700-1) Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 25 2020, 10:50am Sample collector: C. PAGTAKHAN Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: Annual Bayside Sampling per DDW T22 and WDR; +FLD DATA: pH = 8.10 CL2R

= 0.2 mg/L (MDL=0.02 mg/L)

Method Reference						Matrix	Tag
	lifier	Result	Units	Dilution	MDL	RL/ML	5
ISOPHORONE	U	0.011	ug/L	1	0.011	,	
METHOXYCHLOR	Ū	0.011	ug/L	1	0.011	10	
METOLACHLOR	Ū	0.023	ug/L	1	0.023	10	
METRIBUZIN	Ū	0.025	ug/L	1	0.025		
MOLINATE	Ū	0.026	ug/L	1	0.026	2	
CIS-PERMETHRIN	Ū	0.020	ug/L ug/L	1	0.020	2	
TRANS-PERMETHRIN	Ū	0.020	ug/L ug/L	1	0.047		
PHENANTHRENE	Ū	0.015	ug/L	1	0.015		
PROMETRYN	Ū	0.013	ug/L ug/L	1	0.013		
PROPACHLOR	Ū	0.022	ug/L ug/L	1	0.022		
PYRENE	Ū	0.014	ug/L ug/L	1	0.014		
SIMAZINE	Ū	0.030	_	1	0.03	1	
TERBACIL		0.028	ug/L	1	0.028	1	
	U,N		ug/L	1		1	
THIOBENCARB	U	0.018	ug/L		0.018	1	
TRIFLURALIN	Ū	0.010	ug/L	1	0.01		
INTERNAL STANDARD							
D10-ACENAPHTHENE		77.3	% recover	-	1		
D10-PHENANTHRENE		88.0	% recover	=	1		
D12-CHRYSENE		84.2	% recover	У	1		
SURROGATE			_				
D12-PERYLENE	D	30	% recover	=	1		
1,3-DIMETHYL-2-NITROBENZENE		110	% recover	=	1		
TRIPHENYL PHOSPHATE	D	150	% recover	_	1		
D10-PYRENE		88	% recover	У	1		
Run ID: R306241 / Work Group No.: WG237750							
Prep Date1: 26-AUG-20 Prep Date2: 26-AUG-20	Analyzed 2	7-Aug-20 1	7:55				
W. I. I. OPT FOAM MOD. GTW S. MOD. DT. GG (MG						D ***00	
Method: SRL 524M-TCP - SIM for TCP, PT, GC/MS	3					RawH2O	
TARGET ANALYTES			-				
1,2,3-TRICHLOROPROPANE	U	0.85	ng/L	1	0.85		
INTERNAL STANDARD		00 5					
D5-1,2,3-TRICHLOROPROPANE		98.5	% recover	У			
Run ID: R306504 / Work Group No.: WG237952							
Prep Date1: 28-AUG-20 Analyzed 31-Aug-20 11:0	00						
Mathada EDN 200 1 Tay Observations						D IIOO	
Method: EPA 300.1 - Ion Chromatography						RawH2O	
Instrument calibrated 10-AUG-20							
TARGET ANALYTES		0.60	/ T	1.0	0 10	0 1	
FLUORIDE		0.62	mg/L	10	0.12	0.1	
CHLORIDE		13	mg/L	10	0.27	0 4	
NITRITE AS N		0.46	mg/L	10	0.033	0.4	
NITRATE AS N		0.20	mg/L	10	0.035	0.4	
SULFATE		23	mg/L	10	0.3	0.5	
SURROGATE			_				
DICHLOROACETATE		99	% recover	À T0			
Run ID: R306398 / Work Group No.: WG237830	. =						
Prep Date1: 25-AUG-20 Analyzed 25-Aug-20 18:3	37						
Mathada DDR FFO O MAI CONTRACTOR						D IIOO	
Method: EPA 552.2 - Haloacetic Acids						RawH2O	
TARGET ANALYTES							
BROMOCHLOROACETIC ACID	***	0.16	/T	1	0.16		
DROUGHT GUY OR OLD GERT G. 1 GER	U	0.16	ug/L	1	0.16		
BROMODICHLOROACETIC ACID	U U	0.20	ug/L	1	0.2		
CHLORODIBROMOACETIC ACID	U	0.20 1.2	ug/L ug/L	1 1	0.2		
		0.20	ug/L	1	0.2	1	

RL is either the client requested or regulatory mandated Reporting Limit. ML is the regulatory mandated Minimum Level



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo Site:

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L237848-1 (P246700-1) Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 25 2020, 10:50am Sample collector: C. PAGTAKHAN Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: Annual Bayside Sampling per DDW T22 and WDR; +FLD DATA: pH = 8.10 CL2R

Method Reference		_				Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
DICHLOROACETIC ACID	Ū	0.25	ug/L	1	0.25	1	
MONOBROMOACETIC ACID	U	0.25	ug/L	1	0.25	1	
MONOCHLOROACETIC ACID	U	0.25	ug/L	1	0.25	2	
TRIBROMOACETIC ACID	U	0.35	ug/L	1	0.35		
TRICHLOROACETIC ACID		0.61	ug/L	1	0.17	1	
VALUE CALCULATED FROM OTHER RESULTS							
HAA(5)	U	1.0	ug/L				
HAA (5) calculation uses a zero fo	or any individu	al HAA resu	_	nan the Californ	nia DLR for		
that HAA	-						
HAA(9)		1.2	ug/L				
INTERNAL STANDARD			4372				
1,2,3-TRICHLOROPROPANE		100	% recov	oru	1		
SURROGATE		100	% I ECOV	,er à	Τ.		
		110	0		1		
2,3-DIBROMOPROPIONIC ACID	7050	110	% recov	rery	1		
Run ID: R306537 / Work Group No.: WG23	7958						
Prep Date1: Analyzed 31-Aug-20 19:29							
Method: SM5310C - 5310 C. Heated-Persu	Itate Oxidation	Method				RawH2O	
TARGET ANALYTES							
TOTAL ORGANIC CARBON		1.4	mg/L	1	0.12		
Run ID: R306770 / Work Group No.: WG23	8045						
Prep Date1: 03-SEP-20 Analyzed 03-Sep-	20 11:56						
Method: SM2120B - 2001, Visual Comparis	son					RawH2O	
TARGET ANALYTES							
COLOR		3.0	color u	ınit 1	1		
рН=6							
Run ID: R306414 / Work Group No.: WG23	7867						
Prep Date1: 26-AUG-20 Analyzed 26-Aug-							
ricp bacci. 20 A00 20 Analyzed 20 Aug .	20 11.10						
Method: SM2130B - 2011, Nephelometric						RawH2O	
TARGET ANALYTES						Rawnzo	
TURBIDITY		0.60	NTU	1	0.1		
	70.40	0.60	NTU	1	0.1		
Run ID: R306407 / Work Group No.: WG23							
Prep Date1: 26-AUG-20 Analyzed 26-Aug-	20 10:00						
Method: SM2320B - 2011, Titration						RawH2O	
TARGET ANALYTES							
ALKALINITY: TOTAL AS CACO3		88	mg/L	1	5		
Run ID: R306402 / Work Group No.: WG23	7845						
Prep Date1: 26-AUG-20 Analyzed 26-Aug-	20 07:00						
Method: SM2320B-1997 - Calculation						RawH2O	
TARGET ANALYTES							
ALKALINITY: HYDROXIDE	Ū	0.10	mg/L	1	0.1		
Run ID: R306429 / Work Group No.: WG23	7889		5.				
Prep Date1: 27-AUG-20 Analyzed 27-Aug-							
-1 -11-1	. == ==						
Method: SM2320B-1997 - Calculation						RawH2O	
TARGET ANALYTES						NAWIIZU	
		0.0	m er / T	1	F		
ALKALINITY: BICARBONATE	7000	88	mg/L	1	5		
Run ID: R306429 / Work Group No.: WG23							
Prep Date1: 27-AUG-20 Analyzed 27-Aug-	20 10:45						



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo Site:

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

L237848-1 (P246700-1) Lab ID: GRAB (Instantaneous Grab) Sample Type:

Date Collected: Aug 25 2020, 10:50am Sample collector: C. PAGTAKHAN Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: Annual Bayside Sampling per DDW T22 and WDR; +FLD DATA: pH = 8.10 CL2R

Method Reference		_				Matrix	Tag
Parameter Qua	lifier	Result	Units	Dilution	MDL	RL/ML	
Method: SM2320B-1997 - Calculation						RawH2O	
TARGET ANALYTES						Kawn2U	
ALKALINITY: CARBONATE	ŢŢ	0.10	mg/L	1	0.1		
Run ID: R306429 / Work Group No.: WG237889	U	0.10	IIIg/ LI	1	0.1		
Prep Date1: 27-AUG-20 Analyzed 27-Aug-20 10:	15						
ricp bacci. 27 Add 20 Analyzed 27 Adg 20 10.	13						
Method: SM2340C - 2011, Titration: EDTA						RawH2O	
TARGET ANALYTES						11411120	
HARDNESS: TOTAL AS CACO3		84	mg/L	1	3		
Run ID: R306547 / Work Group No.: WG237996			9, 2	-	3		
Prep Datel: 01-SEP-20 Analyzed 01-Sep-20 13:	15						
Thep bacer of bil 20 mary 2ea of bep 20 13.							
Method: SM2510B - 2011, Meter: Platinum Elec	trode					RawH2O	
TARGET ANALYTES							
CONDUCTIVITY		269	umhos/cm	1	0.55		
Run ID: R306484 / Work Group No.: WG237939							
Prep Date1: 28-AUG-20 Analyzed 28-Aug-20 15:	46						
Method: SM2540C - 2011, Dried at 180C						RawH2O	
TARGET ANALYTES							
TOTAL DISSOLVED SOLIDS		160	mg/L	1	10		
Run ID: R306541 / Work Group No.: WG237950							
Prep Date1: 31-AUG-20 Analyzed 31-Aug-20 09:	10						
Method: SM4500-CN C, E - 2011, Distillation	& Colori	metric.				RawH2O	
TARGET ANALYTES							
CYANIDE: TOTAL	U	0.0016	mg/L	1	0.0016		
Run ID: R306610 / Work Group No.: WG238033							
Prep Date1: 03-SEP-20 Analyzed 03-Sep-20 10:	03						
Method: SM4500-NH3 B, C - 2011, Distillation	& Titra	ition				GroundH20	
TARGET ANALYTES							
AMMONIA AS N	U	0.250	mg/L	1	0.25		
Run ID: R306521 / Work Group No.: WG237967							
Prep Date1: 01-SEP-20 Analyzed 01-Sep-20 09:	15						
Mathada EDA 000 F D 4 4 TGD G						D - ***	
Method: EPA 200.7 - Rev. 4.4, ICP Scan						RawH2O	
TARGET ANALYTES	**	16.2	/ .	1 04	16.2	FO	
ALUMINUM CALCIUM	U	16.3	ug/L	1.04	16.3	50	
COPPER		19,900 4.43	ug/L	1.04	22.6 4.16	50	
IRON		4.43 269	ug/L	1.04	4.16 5.41	100	
POTASSIUM		1,190	ug/L	1.04	19.9	100	
MAGNESIUM		6,320	ug/L ug/L	1.04	5.72		
MANGANESE MANGANESE		11.7	ug/L ug/L	1.04	0.135	20	
SODIUM		21,500	ug/L ug/L	1.04	4.26	20	
ZINC		7.28	ug/L ug/L	1.04	0.728	50	
Run ID: R307208 / Work Group No.: WG238350		7.20	ug/L	1.04	0./20	30	
Prep Date1: 17-SEP-20 Prep Date2: 21-SEP-20	Analuzo	d 21-Sen-20 1	11:48				
TICP DUCCT. IT DEE 20 FICP DUCCZ. ZI-SEP-20	лицтуде	.c. ZI DCD-ZO I					



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo Site:

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

L237848-1 (P246700-1)
GRAB (Instantaneous Grab) Lab ID: Sample Type:

Date Collected: Aug 25 2020, 10:50am Sample collector: C. PAGTAKHAN Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: Annual Bayside Sampling per DDW T22 and WDR; +FLD DATA: pH = 8.10 CL2R

						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
ethod: EPA 200.8 - Rev. 5.4, ICP-MS	Scan					RawH20	
TARGET ANALYTES							
SILVER	U	0.017	ug/L	1.02	0.017	10	
ARSENIC		0.46	ug/L	1.02	0.22	2	
BARIUM		36	ug/L	1.02	0.026	100	
BERYLLIUM	Ū	0.010	ug/L	1.02	0.01	1	
CADMIUM		0.018	ug/L	1.02	0.0071	1	
NICKEL		0.23	ug/L	1.02	0.025	10	
LEAD		0.16	ug/L	1.02	0.021	5	
ANTIMONY	U	0.12	ug/L	1.02	0.12	6	
SELENIUM	U	0.60	ug/L	1.02	0.6	5	
THALLIUM	U	0.010	ug/L	1.02	0.01	1	
INTERNAL STANDARD							
SCANDIUM		109	% respon	nse 1.02			
GERMANIUM		103	% respon	nse 1.02			
RHODIUM		97.7	% respon	nse 1.02			
INDIUM		99.5	-	nse 1.02			
TERBIUM		102	-	nse 1.02			
Run ID: R306975 / Work Group No.: WG	238138						
Prep Datel: 03-SEP-20 Prep Date2: 09	-SEP-20 Analyzed	09-Sep-20 (08:59				
Method: EPA 200.8 - Rev. 5.4, ICP-MS	Scan					RawH2O	1
TARGET ANALYTES							
CHROMIUM		0.22	ug/L	1.02	0.12	10	
NTERNAL STANDARD							
SCANDIUM		107	_	nse 1.02			
		101	% respon	nse 1.02			
RHODIUM		98.2	_	nse 1.02			
RHODIUM		98.2 99.0	_	nse 1.02 nse 1.02			
RHODIUM INDIUM FERBIUM			% respon				
RHODIUM INDIUM FERBIUM Run ID: R306975 / Work Group No.: WG		99.0 101	% respon	nse 1.02			
RHODIUM INDIUM FERBIUM Run ID: R306975 / Work Group No.: WG		99.0 101	% respon	nse 1.02			
GERMANIUM RHODIUM INDIUM TERBIUM Run ID: R306975 / Work Group No.: WG Prep Datel: 03-SEP-20 Prep Date2: 09 Method: EPA 245.1 - Cold Vapor AA		99.0 101	% respon	nse 1.02		RawH2O	
RHODIUM INDIUM TERBIUM Run ID: R306975 / Work Group No.: WG Prep Date1: 03-SEP-20 Prep Date2: 09 Method: EPA 245.1 - Cold Vapor AA	-SEP-20 Analyzed	99.0 101 09-Sep-20	% respon % respon	nse 1.02 nse 1.02		RawH2O	
RHODIUM INDIUM PERBIUM Run ID: R306975 / Work Group No.: WG Prep Datel: 03-SEP-20 Prep Date2: 09 Method: EPA 245.1 - Cold Vapor AA TARGET ANALYTES MERCURY	-SEP-20 Analyzed U	99.0 101	% respon	nse 1.02	0.037	RawH2O	
RHODIUM INDIUM ITERBIUM Run ID: R306975 / Work Group No.: WG Prep Date1: 03-SEP-20 Prep Date2: 09 Method: EPA 245.1 - Cold Vapor AA TARGET ANALYTES MERCURY Run ID: R306538 / Work Group No.: WG	-SEP-20 Analyzed U 237951	99.0 101 09-Sep-20	% respon % respon	nse 1.02 nse 1.02	0.037	RawH2O	
RHODIUM INDIUM PERBIUM Run ID: R306975 / Work Group No.: WG Prep Date1: 03-SEP-20 Prep Date2: 09 Method: EPA 245.1 - Cold Vapor AA PARGET ANALYTES MERCURY Run ID: R306538 / Work Group No.: WG	-SEP-20 Analyzed U 237951	99.0 101 09-Sep-20	% respon % respon	nse 1.02 nse 1.02	0.037	RawH2O	
CHODIUM CERBIUM CHODIUM CERBIUM CHOP Date1: 03-SEP-20 Prep Date2: 09 CHETO CHOCK CONTROL OF COMMENT CONTROL OF CONTROL OF COMMENT CONTROL OF CONTROL	-SEP-20 Analyzed U 237951 g-20 11:02	99.0 101 09-Sep-20	% respon % respon 10:13 ug/L	nse 1.02 nse 1.02	0.037	RawH2O RawH2O	
RHODIUM INDIUM PERBIUM Run ID: R306975 / Work Group No.: WG. Prep Date1: 03-SEP-20 Prep Date2: 09 Method: EPA 245.1 - Cold Vapor AA TARGET ANALYTES MERCURY Run ID: R306538 / Work Group No.: WG. Prep Date1: 31-AUG-20 Analyzed 31-Aug. Method: SM9223B - 22nd Edition, Colinarget ANALYTES	-SEP-20 Analyzed U 237951 g-20 11:02	99.0 101 09-Sep-20	% respon % respon 10:13 ug/L	nse 1.02 nse 1.02	0.037		
RHODIUM INDIUM TERBIUM Run ID: R306975 / Work Group No.: WG Prep Datel: 03-SEP-20 Prep Date2: 09 Method: EPA 245.1 - Cold Vapor AA TARGET ANALYTES MERCURY	-SEP-20 Analyzed U 237951 g-20 11:02 lert-18, Quantitr	99.0 101 09-Sep-20 3 0.037	% respon % respon 10:13 ug/L	nse 1.02 nse 1.02			
RHODIUM INDIUM PERBIUM Run ID: R306975 / Work Group No.: WG. Prep Datel: 03-SEP-20 Prep Date2: 09 Method: EPA 245.1 - Cold Vapor AA TARGET ANALYTES MERCURY Run ID: R306538 / Work Group No.: WG. Prep Datel: 31-AUG-20 Analyzed 31-Aug. Method: SM9223B - 22nd Edition, Coli TARGET ANALYTES FOTAL COLIFORMS	-SEP-20 Analyzed U 237951 g-20 11:02 lert-18, Quantitr	99.0 101 09-Sep-20 1 0.037 ay Enumerat:	% respond % resp	nse 1.02 nse 1.02	1		



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo Site:

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

L237848-2 (P246700-2) Lab ID: Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 25 2020, 11:20am Sample collector: C. PAGTAKHAN Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: Annual Sampling per DDW T22 and WDR; SUBCONTRACT DATA; 1613 for 2,3,7,8-

TCDD only: 1562681 dropped/broken for TON Ambient

Method Reference						Matrix Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML
Method: EPA 100.1: EPA 100.2 - Asbestos by	/ Electron Mi	croscopy				RawH2O
Subcontract data from Forensic Analytical						
Comment: SUB ND-None Detected						
SUBCONTRACT LAB DATA						
ASBESTOS	<	0.2	MFL	1	0.2	0.2
Run ID: R307311 / Work Group No.: WG238377		0.2	ML T	Τ.	0.2	0.2
Prep Date1: 25-AUG-20 Analyzed 18-Sep-20 (00:00					
Method: EPA 1613 - DIOXIN 1613A TCDD						RawH2O
Subcontract data from Frontier Analytical Laboratory						RawiiZo
Comment: ND - ANALYTE NOT DETECTED AT DETE	ייד או דד אוריי	T E 77 ET O E O	476 pg/I			
SUBCONTRACT LAB DATA	SCIION LIMII	DEVEL OF 0	.470 pg/L.			
	ND	0.260	/ T	1	0.368	5
2,3,7,8-TETRACHLORODIBENZO DIOXIN		0.368	pg/L	1	0.368	5
Run ID: R307058 / Work Group No.: WG238236						
Prep Date1: 02-SEP-20 Analyzed 10-Sep-20 (00:00					
Mothod: EDA 218 6 - Hayayalant Chromium h	, TC					RawH2O
Method: EPA 218.6 - Hexavalent Chromium by Subcontract data from Alpha Analytical Lab	. 10					Naw1120
	ייים עוות עוות חוות חוות	ייט יייג מישייטיי	VDUIL MD1			
Comment: U - ANALYTE INCLUDED IN ANALYSIS SUBCONTRACT LAB DATA	DOI NOI DETE	CIED AI OR	PDOAR MINT			
HEXAVALENT CHROMIUM	IJ	0.2	110 /T	1	0.2	1
	-	0.2	ug/L	1	0.2	1
Run ID: R307335 / Work Group No.: WG238400						
Prep Date1: 02-SEP-20 Analyzed 02-Sep-20 2	21:47					
Method: EPA 314.0 - Ion Chromatography						RawH2O
Subcontract data from Alpha Analytical Lab						
Comment: U - ANALYTE INCLUDED IN ANALYSIS	BUT NOT DETE	CTED AT OR	ABOVE MDL			
SUBCONTRACT LAB DATA						
PERCHLORATE	U	0.9	ug/L	1	0.9	4
Run ID: R307335 / Work Group No.: WG238400		***	5, =	=	***	_
Prep Date1: 26-AUG-20 Analyzed 26-Aug-20 1						
Trop Batter to not to imarytea to may to						
Method: EPA 504.1 - EDB & DBCP, GC/ECD						RawH2O
Subcontract data from Alpha Analytical Lab						
Comment: U - ANALYTE INCLUDED IN ANALYSIS	BUT NOT DETE	ECTED AT OR	ABOVE MDL			
SUBCONTRACT LAB DATA						
DIBROMOCHLOROPROPANE	U	0.001	ug/L	1	0.001	0.01
ETHYLENE DIBROMIDE	U	0.002	ug/L	1	0.002	0.02
Run ID: R307335 / Work Group No.: WG238400)					
Prep Date1: 02-SEP-20 Analyzed 03-Sep-20 0	9:23					
Mathad: FDA EAR - Dags by EAR						RawH2O
Method: EPA 508 - PCBS by 508						KaWHZU
Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS	DIIM NOW DEST	IOMED 3m Co	ADOME ME			
	DOI NOT DELF	CIED AT OR	ABOAE MDF			
SUBCONTRACT LAB DATA		0. 3		1	0. 2	0 5
AROCLOR 1016	υ 	0.3	ug/L	1	0.3	0.5
AROCLOR 1221	Ū	0.3	ug/L	1	0.3	0.5
AROCLOR 1232	U	0.3	ug/L	1	0.3	0.5
AROCLOR 1242	U	0.3	ug/L	1	0.3	0.5
AROCLOR 1248	U	0.3	ug/L	1	0.3	0.5
AROCLOR 1254	U	0.3	ug/L	1	0.3	0.5
AROCLOR 1260	U	0.2	ug/L	1	0.2	0.5
TOTAL PCB'S	U	0.3	ug/L	1	0.3	0.5

RL is either the client requested or regulatory mandated Reporting Limit. ML is the regulatory mandated Minimum Level



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo Site:

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L237848-2 (P246700-2) Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 25 2020, 11:20am Sample collector: C. PAGTAKHAN Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: Annual Sampling per DDW T22 and WDR; SUBCONTRACT DATA; 1613 for 2,3,7,8-

TCDD only; 1562681 dropped/broken for TON Ambient

Parameter Qualifier Result Units Dilution MDL RL/ML Run ID: R307335 / Work Group No.: WG238400 Prep Datel: 28-AUG-20 Analyzed 03-Sep-20 10:25 RawH20 Prep Datel: 28-AUG-20 Analyzed 03-Sep-20 10:25 RawH20 Subcontact data from Alpha Analyteal Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT.LAB DATA 2, 4,5-TRLCHOROPHENOXY) ACETIC ACID U 1 1 Ug/L 1 0,2 1 (2,4-DICHLOROPHENOXY) ACETIC ACID U 1 1 Ug/L 1 0,2 2 10 (2,4-DICHLOROPHENOXY) ACETIC ACID U 0,2 Ug/L 1 0,2 2 10 (2,4-DICHLOROPHENOXY) ACETIC ACID U 0,2 Ug/L 1 0,2 2 10 (2,4-DICHLOROPHENOXY) ACETIC ACID U 0,2 Ug/L 1 0,2 2 10 (2,4-DICHLOROPHENOXY) ACETIC ACID U 0,2 Ug/L 1 0,2 2 2 (2,4-DICHLOROPHENOXY) ACETIC ACID U 0,2 Ug/L 1 0,2 2 2 (2,4-DICHLOROPHENOXY) ACETIC ACID U 0,2 Ug/L 1 0,2 2 2 (2,4-DICHLOROPHENOX) U 0,2 Ug/L 1 0,2 2 2 (2,4-DICHLOROPHENOX U 0,2 Ug/L 1 0,4 3 (2,4-DICHLOROPHENOX U 0,4 Ug/L 1 0,6 3 (2,4-DICHLOROPHENOX U 0,4 Ug/L 1 0,6 3 (2,4-DICHLOROPHENOX U 0,4 Ug/L 1 0,6 3 (2,4-DICHLOROPHENOX U 0,4 Ug/L 1 0,4 5 (2,4-DICHLOROPHENOX U 0,4 Ug/L 1 0,9 0 5 (2,4-DICHLOROPHENOX U 0,9 Ug/L 1 0,9 0 5	Mothed Deference						Materia	~
Part 1	Method Reference	ifion	Dogu1+	IInita	Dilution	MDI		ıg
Reversible EAR AUG-20 Analyzed 03-Sep-20 10:25 Rawi20 Sockocortect data for Alpha Analyzed 120 Comments U - ANALYTS INCLIDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MUSUSCONTRACT ADAPA C2	~	TITEL	result	UIIILS	DITUCION	יועוייו	K11/ III	
Method: EPA 515.3 - Chlorinated Acids, GC/ECD Subcontract date from Aghin Analysis But NOT DETECTED AT OR ABOVE MDL SUBCONTRACTIAB DATA 2.4 - TRICARDON U 0.2 ug/L 1 0.2 1 1.2.4 - DICHLOROPHENOLY ACETIC ACID U 1 1 ug/L 1 0.2 2 DALARON U 2.2 ug/L 1 0.2 2 DALARON U 0.2 ug/L 1 0.2 2 DALARON U 0.2 ug/L 1 0.2 2 DENTACHLOROPHENOL, U 0.2 ug/L 1 0.2 2 DENTACHLOROPHENOL, U 0.2 ug/L 1 0.2 0.2 DENTACHLOROPHENOL, U 0.1 ug/L 1 0.2 0.2 DENTACHLOROPHENOL, U 0.1 ug/L 1 0.2 0.2 DENTACHLOROPHENOL, U 0.2 ug/L 1 0.2 0.2 DENTACHLOROPHENOL, U 0.1 ug/L 1 0.2 0.2 DENTACHLOROPHENOL, U 0.1 ug/L 1 0.2 0.2 DENTACHLOROPHENOL, U 0.2 ug/L 1 0.2 0.2 DENTACHLOROPHENOL, U 0.1 ug/L 1 0.2 0.2 DENTACHLOROPHENOL, U 0.2 ug/L 1 0.2 0.2 DENTACHLOROPHENOL, U 0.3 ug/L 1 0.5 0.3 ALBOLICARD U 0.3 ug/L 1 0.6 3 ALBOLICARD U 0.4 ug/L 1 0.6 3 ALBOLICARD U 0.5 ug/L 1 0.6 3 ALBOLICARD U 0.5 ug/L 1 0.6 3 ALBOLICARD U 0.9 ug/L 1 0.6 3 ALBOLICARD U 0.9 ug/L 1 0.9 0.9 0.9 DENTACHLOROPHENOL U 0.9 ug/L 1 0.9 0.9 DENTA	· · · · · · · · · · · · · · · · · · ·	5						
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Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL 2,4,5-TRICHLOROPHENOX U	Method: EPA 515.3 - Chlorinated Acids, GC/ECD)					RawH2O	
SUBCONTRACT LAB DATA 2	Subcontract data from Alpha Analytical Lab							
2,4,5-THICHLOROPHENOKY) ACETIC ACID U 0,2 ug/L 1 0,2 10 BENTAZON U 0,2 ug/L 1 0,2 2 10 BENTAZON U 0,2 ug/L 1 0,2 2 10 DINOSBB U 0,2 ug/L 1 0,2 2 10 DINOSBB U 0,2 ug/L 1 0,2 2 10 DINOSBB U 0,2 ug/L 1 0,2 0,2 2 10 DINOSBB U U 0,2 Ug/L 1 0,2 0,2 0,2 10 DINOSBB U U 0,2 Ug/L 1 0,2 0,2 0,2 10 DINOSBB U U 0,1 Ug/L 1 0,2 0,2 0,2 10 DINOSBB U U 0,1 Ug/L 1 0,2 0,2 0,2 10 DINOSBB U U 0,2 Ug/L 1 0,2 0,2 0,2 10 DINOSBB U U 0,1 Ug/L 1 0,2 0,2 0,2 10 DINOSBB U U 0,2 Ug/L 1 0,2 0,2 0,2 10 DINOSBB U U 0,1 Ug/L 1 0,5 0,1 0,1 11 WELTOSE SEP-20 Analysed 15-Sep-20 liv07 Wethod: EPA 531,1 - Carbamates, HPLC Wethod: EPA 531,1 - Carbamates, HPLC SUBCONTRACT LAB DATA SUBCONTRACT LAB DATA ALDICARB SULFONE U 0,6 Ug/L 1 0,6 3 ALDICARB SULFONE U 0,6 Ug/L 1 0,6 3 ALDICARB SULFONE U 0,8 Ug/L 1 0,6 3 ALDICARB SULFONE U 0,8 Ug/L 1 0,6 3 ALDICARB SULFONE U 0,9 Ug/L 1 0,8 5 WENTHICARB U U 0,8 Ug/L 1 0,8 5 WENTHICARB U U 0,9 Ug/L 1 0,8 5 WENTHICARB U U 0,9 Ug/L 1 0,9 0 0,9	Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT	NOT DET	ECTED AT OR	ABOVE MDL				
1	SUBCONTRACT LAB DATA							
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DINOSEB U 0 0.2 ug/L 1 0.2 2 PENTACHOROPHENOL U 0.2 ug/L 1 0.2 0.2 PENTACHOROPHENOL U 0.2 ug/L 1 0.2 0.2 PENTACHOROPHENOL U 0.1 ug/L 1 0.1 1 RUM ID: R307335 / Work Group No.: WG238400 PTerp Datel: 08-5EP-20 Analyzed 15-5ep-20 11:07 Wethod: EFA 531.1 - Carbamates, HPLC Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ALDICARB SULFONE U 0.6 ug/L 1 0.6 3 ALDICARB SULFONE U 0.5 ug/L 1 0.6 3 ALDICARB SULFONE U 0.5 ug/L 1 0.6 3 ALDICARB SULFONE U 0.5 ug/L 1 0.5 4 ALDICARB SULFONE U 0.5 ug/L 1 0.5 4 ALDICARB SULFONE U 0.5 ug/L 1 0.5 4 ALDICARB SULFONE U 0.5 ug/L 1 0.5 5 ALDICARB SULFONE U 0.9 ug/L 1 0.9 5 METHONYL U 0.9 ug/L 1 0.9 0.9 5 METHONYL U 0.9 ug/L 1 0.9 0.9 2 PROPOXUR U 0.9 ug/L 1 0.9 0.9 2 PROPOXUR U 0.9 ug/L 1 0.9 0.9 2 PROPOXUR U 0.9 ug/L 1 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL U 0.9 ug/L 1 0.9 0.9 0.9 5 RUMINIONYL	BENTAZON	U	0.2	ug/L	1	0.2	2	
DENTACHLOROPHENOL	DALAPON	U	2	ug/L	1	2	10	
PICLORAM	DINOSEB	U	0.2	ug/L	1	0.2	2	
REIN ID: R307335 / Work Group No.: WG238400 Prep Datel: 08-SEP-20 Analyzed 15-Sep-20 11:07 Wethod: EPA 531.1 - Carbamates, HPLC Subcontract data from Apha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ALDICARB U 0 0.6	PENTACHLOROPHENOL	U	0.2	ug/L	1	0.2	0.2	
Prep Datel: 08-SEP-20 Analyzed 15-Sep-20 11:07 Method: EPA 531.1 - Carbamates, HPLC Subcontract data from Aphy Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACTLAB DATA	PICLORAM	U	0.1	ug/L	1	0.1	1	
Method: EPA 531.1 - Carbamates, HPLC Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA 3-HYDROXYCARBOFURAN U 0.6 ug/L 1 0.6 3 ALDICARB SULFONE U 0.5 4 CARBARYL 0.5 4 CARBARYL 0.0 0.8 ug/L 1 0.6 0.5 4 CARBARYL 0.0 0.6 0.9 ug/L 1 0.8 5 CARBARYL 0.0 0.9 0.9 ug/L 1 0.8 5 CARBOFURAN U 0.0 0.9 ug/L 1 0.9 0.9 5 METHIONYL U 0.9 ug/L 1 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	Run ID: R307335 / Work Group No.: WG238400							
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SUBCONTRACT LAB DATA	Subcontract data from Alpha Analytical Lab							
3-HYDROXYCARBOFURAN U 0.6 ug/L 1 0.6 3 ALDICARB U 0.6 ug/L 1 0.6 3 ALDICARB SULFONE U 0.5 ug/L 1 0.5 4 CARBARYL U 0.8 ug/L 1 0.8 5 CARBOFURAN U 0.8 ug/L 1 0.8 5 CARBOFURAN U 0.8 ug/L 1 0.8 5 CARBOFURAN U 0.9 ug/L 1 0.9 0.8 5 METHOMYL U 0.9 ug/L 1 0.9 5 METHOMYL U 0.9 ug/L 1 0.9 0.9 5 METHOMYL U 0.9 ug/L 1 0.9 2 COXAMYL U 0.9 ug/L 1 0.9 5 COMMETT 16-SEP-20 Analyzed 18-Sep-20 23:02 WELTO SUBCONTRACT data from Alpha Analytical Lab COMMETT: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA GRIYPHOSATE WELTO SUBCONTRACT LAB DATA CRIPT SUBCONTRACT LAB DATA CRIPT SUBCONTRACT LAB DATA CRIPT SUBCONTRACT LAB TAB CRIPT SUBCONTRACT LAB DATA COMMENT: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA COMMENTE: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA COMMENT: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA COMMENT: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA COMMENT: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA COMMENT: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA COMMENT: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA COMMENT: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA COMMENT: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA COMMENT COMMENT: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT	Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT	NOT DET	ECTED AT OR	R ABOVE MDL				
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CARBARYL U 0.8 ug/L 1 0.8 5 CARBOTURAN U 0.4 ug/L 1 0.4 5 METHIOCARB U 0.9 ug/L 1 0.9 5 METHIOCARB U 0.9 ug/L 1 0.9 2 METHIOMYL U 0.9 ug/L 1 0.9 2 OXAMYL U 0.9 ug/L 1 0.9 2 OXAMYL U 0.9 ug/L 1 0.9 2 OXAMYL U 0.9 ug/L 1 0.9 5 Run ID: R307335 / Work Group No.: WG238400 Prep Datel: 16-SEP-20 Analyzed 18-Sep-20 23:02 Method: EPA 547 - Glyphosate, HPLC RawH20 Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA GLYPHOSATE U 6 ug/L 1 6 25 Run ID: R307335 / Work Group No.: WG238400 Prep Datel: 26-AUG-20 Analyzed 27-Aug-20 09:19 Method: EPA 548.1 - Endothall, GC/MS Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUbcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUbcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUbcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUbcontract Lab DATA ENDOTHALL U 20 ug/L 1 20 45 45 46 47 48 48 49 40 40 40 40 40 40 40 40 40	ALDICARB	U	0.6	ug/L	1	0.6	-	
CARBOFURAN U 0.4 ug/L 1 0.4 5 METHICCARB U 0.9 ug/L 1 0.9 5 METHICCARB U 0.9 ug/L 1 0.9 5 METHICCARB U 0.9 ug/L 1 0.9 2 OXAMYL U 0.9 ug/L 1 0.9 2 OXAMYL U 0.9 ug/L 1 0.9 20 PROPOXUR U 0.9 ug/L 1 0.9 0.9 20 PROPOXUR Run ID: R307335 / Work Group No.: WG238400 Prep Datel: 16-SEP-20 Analyzed 18-Sep-20 23:02 Method: EPA 547 - Glyphosate, HPLC RawH2O Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA GLYPHOSATE U 6 ug/L 1 6 25 Run ID: R307335 / Work Group No.: WG238400 Prep Datel: 26-AUG-20 Analyzed 27-Aug-20 09:19 Method: EPA 548.1 - Endothall, GC/MS Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA GLYPHOSATE RAWH2O Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 Run ID: R307335 / Work Group No.: WG238400	ALDICARB SULFONE	U		ug/L		0.5	=	
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METHOMYL U 0.9	CARBOFURAN	U		ug/L				
OXAMYL OXAMYL	METHIOCARB	U		ug/L				
PROPOXUR U	METHOMYL			_				
Run II: R307335 / Work Group No.: WG238400 Prep Datel: 16-SEP-20 Analyzed 18-Sep-20 23:02 Method: EPA 547 - Glyphosate, HPLC Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA GLYPHOSATE U 6 ug/L 1 6 25 Run ID: R307335 / Work Group No.: WG238400 Prep Datel: 26-AUG-20 Analyzed 27-Aug-20 09:19 Method: EPA 548.1 - Endothall, GC/MS Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 Run ID: R307335 / Work Group No.: WG238400	OXAMYL			ug/L				
Prep Datel: 16-SEP-20 Analyzed 18-Sep-20 23:02 Method: EPA 547 - Glyphosate, HPLC Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACTLAB DATA GLYPHOSATE U 6 ug/L 1 6 25 Run ID: R307335 / Work Group No.: WG238400 Prep Datel: 26-AUG-20 Analyzed 27-Aug-20 09:19 Method: EPA 548.1 - Endothall, GC/MS Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 RawH2O ASSUBLIC RUN ID: R307335 / Work Group No.: WG238400	PROPOXUR	U	0.9	ug/L	1	0.9	5	
Method: EPA 547 - Glyphosate, HPLC Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA GLYPHOSATE GLYPHOSATE Run ID: R307335 / Work Group No.: WG238400 Prep Datel: 26-AUG-20 Analyzed 27-Aug-20 09:19 Method: EPA 548.1 - Endothall, GC/MS Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 RawH20 45 Run ID: R307335 / Work Group No.: WG238400	Run ID: R307335 / Work Group No.: WG238400							
Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA GLYPHOSATE U 6 ug/L 1 6 25 Run ID: R307335 / Work Group No.: WG238400 Prep Datel: 26-AUG-20 Analyzed 27-Aug-20 09:19 Method: EPA 548.1 - Endothall, GC/MS Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 Run ID: R307335 / Work Group No.: WG238400	Prep Date1: 16-SEP-20 Analyzed 18-Sep-20 23:0	2						
Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA GLYPHOSATE U 6 ug/L 1 6 25 Run ID: R307335 / Work Group No.: WG238400 Prep Datel: 26-AUG-20 Analyzed 27-Aug-20 09:19 Method: EPA 548.1 - Endothall, GC/MS Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 Run ID: R307335 / Work Group No.: WG238400								
Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA GLYPHOSATE U 6 ug/L 1 6 25 Run ID: R307335 / Work Group No.: WG238400 Prep Datel: 26-AUG-20 Analyzed 27-Aug-20 09:19 Method: EPA 548.1 - Endothall, GC/MS Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 Run ID: R307335 / Work Group No.: WG238400							RawH2O	
### SUBCONTRACT LAB DATA GLYPHOSATE	Subcontract data from Alpha Analytical Lab							
U		NOT DET	ECTED AT OR	R ABOVE MDL				
Run ID: R307335 / Work Group No.: WG238400 Prep Datel: 26-AUG-20 Analyzed 27-Aug-20 09:19 Method: EPA 548.1 - Endothall, GC/MS RawH20 Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 Run ID: R307335 / Work Group No.: WG238400					_	_		
Prep Date1: 26-AUG-20 Analyzed 27-Aug-20 09:19 Method: EPA 548.1 - Endothall, GC/MS RawH20 Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 Run ID: R307335 / Work Group No.: WG238400		U	6	ug/L	1	6	25	
Method: EPA 548.1 - Endothall, GC/MS Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 Run ID: R307335 / Work Group No.: WG238400	•	_						
Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 Run ID: R307335 / Work Group No.: WG238400	Prep Date1: 26-AUG-20 Analyzed 27-Aug-20 09:1	.9						
Subcontract data from Alpha Analytical Lab Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 Run ID: R307335 / Work Group No.: WG238400	Mathala EDN E40 1 English 11 COM						D W00	
Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 Run ID: R307335 / Work Group No.: WG238400							RawH2O	
SUBCONTRACT LAB DATA ENDOTHALL U 20 ug/L 1 20 45 Run ID: R307335 / Work Group No.: WG238400								
ENDOTHALL U 20 ug/L 1 20 45 Run ID: R307335 / Work Group No.: WG238400		NOT DET	ECTED AT OR	R ABOVE MDL				
Run ID: R307335 / Work Group No.: WG238400			0.0	/-	1	0.0	45	
-		Ū	20	ug/L	1	20	45	
Prep Date1: 31-AUG-20 Analyzed 02-Sep-20 06:00								
	Prep Date1: 31-AUG-20 Analyzed 02-Sep-20 06:0	U						



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo Site:

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L237848-2 (P246700-2) Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 25 2020, 11:20am Sample collector: C. PAGTAKHAN
Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: Annual Sampling per DDW T22 and WDR; SUBCONTRACT DATA; 1613 for 2,3,7,8-

TCDD only; 1562681 dropped/broken for TON Ambient

Method Reference						Matrix Tag
Parameter Q	ualifier	Result	Units	Dilution	MDL	RL/ML
Method: EPA 549.2 - Diquat & Paraquat, HPL	ıC					RawH2O
Subcontract data from Alpha Analytical Lab						
Comment: U - ANALYTE INCLUDED IN ANALYSIS	BUT NOT DET	ECTED AT OR	ABOVE MDL			
SUBCONTRACT LAB DATA						
DIQUAT	U	0.6	ug/L	1	0.6	2
Run ID: R307335 / Work Group No.: WG238400			3.			
Prep Date1: 01-SEP-20 Analyzed 03-Sep-20 0						
-						
Method: EPA 8260B - Trihalomethanes, GC/MS	1					GroundH2O
Subcontract data from Alpha Analytical Lab						
Comment: U - ANALYTE INCLUDED IN ANALYSIS	BUT NOT DET	ECTED AT OR	ABOVE MDL			
SUBCONTRACT LAB DATA						
BROMODICHLOROMETHANE		1.86	ug/L	1	0.4	0.5
BROMOFORM	U	0.3	ug/L	1	0.3	0.5
CHLOROFORM		28.26	ug/L	1	0.4	0.5
DIBROMOCHLOROMETHANE	U	0.4	ug/L	1	0.4	0.5
TRIHALOMETHANES		30.12	ug/L	1	0.4	0.5
Run ID: R307335 / Work Group No.: WG238400			3.			
Prep Date1: 26-AUG-20 Analyzed 27-Aug-20 1						
1, 11, 11, 11, 11, 11, 11, 11, 11, 11,						
Method: EPA 900.0 - NONE						RawH2O
Subcontract data from FG Labs - Santa Paula						
Comment: MDL value is the MDA.						
SUBCONTRACT LAB DATA						
RADIONUCLIDES: ALPHA		1.64	pCi/L		1.15	3
RADIONUCLIDES: BETA		2.2	pCi/L		1.13	4
RADIONUCLIDES: ALPHA COUNTING ERROR	+/-	0.996	pCi/L			
RADIONUCLIDES: BETA COUNTING ERROR	+/-	1.01	pCi/L			
GROSS ALPHA MDA95		1.15	pCi/L			
GROSS BETA MDA95		1.13	pCi/L			
Run ID: R307845 / Work Group No.: WG238766			1 - /			
Prep Date1: 17-SEP-20 Analyzed 05-Oct-20 0						
-						
Method: EPA 903.0,903.1, 904.0 - Radium 22	6 by 903.0	or 903.1 and	d Radium 2	28 by 904.0		RawH2O
Subcontract data from FG Labs - Santa Paula						
Comment: MDL value is the MDA95.						
SUBCONTRACT LAB DATA						
RADIUM 226		0.256	pCi/L	1	0.362	1
RADIUM 226 COUNTING ERROR	+/-	0.183	pCi/L			
RADIUM 226 MDA95		0.362	pCi/L			
Run ID: R307845 / Work Group No.: WG238766						
Prep Datel: 05-SEP-20 Analyzed 14-Sep-20 1	1:11					
Method: EPA 903.0,903.1, 904.0 - Radium 22	6 by 903.0	or 903.1 and	d Radium 2:	28 by 904.0		RawH2O 1
Subcontract data from FG Labs - Santa Paula						
Comment: MDL value is the MDA95.						
SUBCONTRACT LAB DATA						
RADIUM 228		0	pCi/L	1	0.4	1
RADIUM 228 COUNTING ERROR	+/-	0.758	pCi/L			
RADIUM 228 MDA95		0.4	pCi/L			
Run ID: R307845 / Work Group No.: WG238766						
Prep Date1: 19-SEP-20 Analyzed 22-Sep-20 2	0:00					



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L237848-2 (P246700-2)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 25 2020, 11:20am Sample collector: C. PAGTAKHAN

Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Method: SM2150B - 1997, Ambient Temperature, one panelist

conditions (19 degrees C) and was not dechlorinated.; Musty

Subcontract data from Caltest Analytical

ODOR CHARACTERIZATION (SEE COMMENT)

SUBCONTRACT LAB DATA

THRESHOLD ODOR NUMBER

Sample Comments: Annual Sampling per DDW T22 and WDR; SUBCONTRACT DATA; 1613 for 2,3,7,8-

TCDD only: 1562681 dropped/broken for TON Ambient

Method Reference						Matrix	Tag
Parameter (Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 905.0 -						RawH2O	
Subcontract data from FG Labs - Santa Paula							
Comment: MDL value is the MDA. Analyzed by	/ EPA 905.0						
SUBCONTRACT LAB DATA							
STRONTIUM 90		0.301	pCi/L	1	0.659	2	
STRONTIUM 90 COUNTING ERROR	+/-	0.397	pCi/L				
STRONTIUM 90 MDA95		0.659	pCi/L				
Run ID: R307845 / Work Group No.: WG238766	5		- '				
Prep Date1: 18-SEP-20 Analyzed 18-Sep-20 1							
Method: EPA 906.0 -						RawH2O	
Subcontract data from FG Labs - Santa Paula							
Comment: MDL value is the MDA.							
SUBCONTRACT LAB DATA							
TRITIUM		269	pCi/L	1	434	1000	
TRITIUM COUNTING ERROR	+/-	273	pCi/L				
TRITIUM MDA95		434	pCi/L				
Run ID: R307845 / Work Group No.: WG238766							
Prep Date1: 14-SEP-20 Analyzed 18-Sep-20 1	L4:41						
Method: EPA 908.0 -						RawH2O	
Subcontract data from FG Labs - Santa Paula							
Comment: Analyzed by EPA 200.8							
SUBCONTRACT LAB DATA							
URANIUM		0.222	pCi/L	1	0.13	1	
Run ID: R307845 / Work Group No.: WG238766	5		F/-				
Prep Date1: 27-AUG-20 Analyzed 27-Aug-20 (
Method: EPA 913.0 - RADON: EPA 913.0						RawH2O	
Subcontract data from FG Labs - Santa Paula							
Comment: MDL value is the MDA.							
SUBCONTRACT LAB DATA							
RADON 222		102	pCi/L	1	18.2		
RADON 222 COUNTING ERROR	+/-	20.6	pCi/L				
RADON 222 MDA95	+/-	18.2	pCi/L				
Run ID: R307845 / Work Group No.: WG238766							
Prep Date1: 27-AUG-20 Analyzed 27-Aug-20 1	L9:37						
Method: PER SUBCONTRACT LABORATORY REPORT	- Subcontrac	ct data tra	nsmittal			RawH2O	
Subcontract data	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Comment: Original report transmitted to cl	lient. Copy	of report	archived w	ith data packet.	•		
SUBCONTRACT LAB DATA	-11	-		-			
DATA TRANSMITTAL							
Run ID: R307836 / Work Group No.: WG238764	1						
Prep Date1: 15-OCT-20 Analyzed 15-Oct-20 (

RL is either the client requested or regulatory mandated Reporting Limit. ML is the regulatory mandated Minimum Level

1

1

Comment: The odor of the sample was characterized as musty. Per client request, the sample was tested at ambient

TON

Panelists

1

RawH2O

1



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Site: WTP BAYSIDE Bayside GW Project Extraction Wells at 2540 Grant Avenue, San Lorenzo

Locator: BAY WELL HEAD Sample tap at the well, as shown in Drawing No. 2097-C-002

Lab ID: L237848-2 (P246700-2)
Sample Type: GRAB (Instantaneous Grab)

Date Collected: Aug 25 2020, 11:20am Sample collector: C. PAGTAKHAN

Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: Annual Sampling per DDW T22 and WDR; SUBCONTRACT DATA; 1613 for 2,3,7,8-

TCDD only: 1562681 dropped/broken for TON Ambient

Method Reference Matrix Tag

Parameter Qualifier Result Units Dilution MDL RL/ML

NUMBER ANALYZING SAMPLE 1 Panelists TEMPERATURE 19 deg C

Run ID: R306509 / Work Group No.: WG237975 Prep Date1: 25-AUG-20 Analyzed 25-Aug-20 15:57

Method: SM5540C - 2000, Colorimetric RawH2O

Subcontract data from Alpha Analytical Lab

Comment: U - ANALYTE INCLUDED IN ANALYSIS BUT NOT DETECTED AT OR ABOVE MDL

SUBCONTRACT LAB DATA

MBAS U 0.03 mg/L 1 0.03 0.05

Run ID: R307335 / Work Group No.: WG238400 Prep Datel: 26-AUG-20 Analyzed 26-Aug-20 16:00



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

FIELD QC Sample collection QC Site:

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L237848-3 (P246700-3)

Sample Type: QCFB (Field Blank Grab)

Date Collected: Aug 25 2020, 11:15am Sample collector: C. PAGTAKHAN

Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: QCFB for L237848-1; Prep'd on mm/dd/2020 by VOA Chemist

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	3
	99 (NS					D 1 17700	
Method: EPA 524.4 - Volatile Organics	, GC/MS					DrinkH2O	
TARGET ANALYTES		0 51	/-		0 51		
ALLYL CHLORIDE	U 	0.51	ug/L	1	0.51	2	
TERT-AMYL METHYL ETHER	U	0.15	ug/L	1	0.15	3	
BENZENE	Ŭ	0.10	ug/L	1	0.1	0.5	
BROMOBENZENE	Ŭ	0.091	ug/L	1	0.091		
BROMOCHLOROMETHANE	Ŭ	0.20	ug/L	1	0.2		
BROMODICHLOROMETHANE	Ū	0.11	ug/L	1	0.11		
BROMOFORM	Ū	0.26	ug/L	1	0.26		
BROMOMETHANE	Ū	2.3	ug/L	1	2.3		
TERT-BUTYL ALCOHOL	Ū	0.55	ug/L	1	0.55	2	
N-BUTYLBENZENE	U	0.076	ug/L	1	0.076		
SEC-BUTYLBENZENE	U	0.086	ug/L	1	0.086		
TERT-BUTYLBENZENE	U	0.15	ug/L	1	0.15		
CARBON DISULFIDE	U	0.16	ug/L	1	0.16		
CARBON TETRACHLORIDE	U	0.12	ug/L	1	0.12	0.5	
CHLOROBENZENE	Ŭ	0.067	ug/L	1	0.067	0.5	
1-CHLOROBUTANE	Ŭ	0.085	ug/L	1	0.085		
CHLOROFORM	U	0.12	ug/L	1	0.12		
CHLOROMETHANE	U	0.36	ug/L	1	0.36		
O-CHLOROTOLUENE	U	0.093	ug/L	1	0.093		
P-CHLOROTOLUENE	U	0.083	ug/L	1	0.083		
DIBROMOCHLOROMETHANE	U	0.17	ug/L	1	0.17		
DIBROMOMETHANE	U	0.14	ug/L	1	0.14		
1,2-DICHLOROBENZENE	U	0.070	ug/L	1	0.07	0.5	
1,3-DICHLOROBENZENE	Ū	0.064	ug/L	1	0.064		
1,4-DICHLOROBENZENE	Ū	0.058	ug/L	1	0.058	0.5	
DICHLORODIFLUOROMETHANE	Ū	0.23	ug/L	1	0.23	0.5	
1,1-DICHLOROETHANE	Ū	0.15	ug/L	1	0.15	0.5	
1,2-DICHLOROETHANE	Ū	0.10	ug/L	1	0.1	0.5	
1,1-DICHLOROETHENE	Ū	0.15	ug/L	1	0.15	0.5	
CIS-1,2-DICHLOROETHENE	Ū	0.14	ug/L	1	0.14	0.5	
TRANS-1,2-DICHLOROETHENE	Ū	0.093	ug/L	1	0.093	0.5	
1,2-DICHLOROPROPANE	Ū	0.10	_	1	0.093	0.5	
1,3-DICHLOROPROPANE	Ū	0.071	ug/L ug/L	1	0.071	0.5	
1,1-DICHLOROPROPENE	Ū			1			
		0.089	ug/L		0.089	0 5	
CIS-1,3-DICHLOROPROPENE	Ū	0.084	ug/L	1	0.084	0.5	
TRANS-1,3-DICHLOROPROPENE	Ū	0.068	ug/L	1	0.068	0.5	
DIISOPROPYL ETHER	U	0.087	ug/L	1	0.087	0. 5	
ETHYL BENZENE	Ŭ	0.092	ug/L	1	0.092	0.5	
ETHYL ETHER	Ū	0.17	ug/L	1	0.17		
ETHYLMETHACRYLATE	Ŭ	0.11	ug/L	1	0.11		
ETHYL-T-BUTYL ETHER	U	0.080	ug/L	1	0.08	3	
FLUOROTRICHLOROMETHANE	Ū	0.19	ug/L	1	0.19	5	
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE		0.17	ug/L	1	0.17	10	
HEXACHLOROBUTADIENE	Ū	0.093	ug/L	1	0.093		
HEXACHLOROETHANE	Ū	0.17	ug/L	1	0.17		
IODOMETHANE	U	2.7	ug/L	1	2.7		
ISOPROPYLBENZENE	U	0.086	ug/L	1	0.086		
P-ISOPROPYLTOLUENE	Ŭ	0.080	ug/L	1	0.08		
METHYLENE CHLORIDE	U	0.15	ug/L	1	0.15	0.5	
METHYL-T-BUTYL ETHER	U	0.058	ug/L	1	0.058	3	
NAPHTHALENE	U	0.084	ug/L	1	0.084		
PENTACHLOROETHANE	U	0.25	ug/L	1	0.25		



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

Prep Date1: 28-AUG-20 Analyzed 31-Aug-20 11:53

FIELD QC Sample collection QC Site:

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L237848-3 (P246700-3)

Sample Type: QCFB (Field Blank Grab)

Date Collected: Aug 25 2020, 11:15am Sample collector: C. PAGTAKHAN

Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: QCFB for L237848-1; Prep'd on mm/dd/2020 by VOA Chemist

Method Reference						Matrix Tag
Parameter Qual	ifier	Result	Units	Dilution	MDL	RL/ML
N-PROPYLBENZENE	U	0.078	ug/L	1	0.078	
STYRENE	U	0.11	ug/L	1	0.11	0.5
1,1,1,2-TETRACHLOROETHANE	U	0.073	ug/L	1	0.073	
1,1,2,2-TETRACHLOROETHANE	U	0.11	ug/L	1	0.11	0.5
TETRACHLOROETHENE	U	0.12	ug/L	1	0.12	0.5
TETRAHYDROFURAN	U	0.24	ug/L	1	0.24	
TOLUENE	U	0.075	ug/L	1	0.075	0.5
1,2,3-TRICHLOROBENZENE	U	0.082	ug/L	1	0.082	
L,2,4-TRICHLOROBENZENE	U	0.10	ug/L	1	0.1	0.5
l,1,1-TRICHLOROETHANE	U	0.13	ug/L	1	0.13	0.5
1,1,2-TRICHLOROETHANE	U	0.11	ug/L	1	0.11	0.5
TRICHLOROETHENE	U	0.12	ug/L	1	0.12	0.5
1,2,4-TRIMETHYLBENZENE	U	0.088	ug/L	1	0.088	
1,3,5-TRIMETHYLBENZENE	U	0.071	ug/L	1	0.071	
/INYL CHLORIDE	U	0.20	ug/L	1	0.2	0.5
D-XYLENE	U	0.079	ug/L	1	0.079	0.5
M+P XYLENES	U	0.18	ug/L	1	0.18	0.5
VALUE(S) USED TO CALCULATE OTHER VALUE(S)						
TOTAL 1,3-DICHLOROPROPENES	U	0.50	ug/L	1		0.5
TOTAL XYLENES	U	0.50	ug/L	1	0.22	0.5
NTERNAL STANDARD						
L,4-DIFLUOROBENZENE		81.9	% recov	ery 1		
04-1,4-DICHLOROBENZENE		81.5	% recov	ery 1		
D5-CHLOROBENZENE		81.8	% recov	ery 1		
SURROGATE						
4-BROMOFLUOROBENZENE		95.7	% recov	ery 1		
O3-METHYL-T-BUTYL-ETHER		94.5	% recov	ery 1		
04-1,2-DICHLOROBENZENE		103	% recov	ery 1		
Run ID: R306412 / Work Group No.: WG237838						
Prep Datel: 25-AUG-20 Analyzed 25-Aug-20 15:4	0					
Method: SRL 524M-TCP - SIM for TCP, PT, GC/MS	}					DrinkH2O
TARGET ANALYTES						
1,2,3-TRICHLOROPROPANE	U	0.85	ng/L	1	0.85	
INTERNAL STANDARD						
D5-1,2,3-TRICHLOROPROPANE		89.8	% recov	rery		
Run ID: R306504 / Work Group No.: WG237952						



Analytical Results Report

LSR B455-0706-1 BAYSIDE GROUND WATER PROJECT

FIELD QC Sample collection QC Site:

COLLECTION QC Locator: Field QC Sample submitted for analysis

Lab ID: L237848-4 (P246700-4)

Sample Type: QCTB (Trip Blank Grab)

Date Collected: Aug 25 2020, 11:15am Sample collector: C. PAGTAKHAN

Date Received: Aug 25 2020, 01:25pm Sample receiver: ANG

Sample Comments: QCTB for L237848-2; DO NOT OPEN.

Method Reference						Matrix	Tag
Parameter	Qualifier	Result	Units	Dilution	MDL	RL/ML	
Method: EPA 504.1 - EDB & DBCP, GC/E	CD					RawH2O	
Subcontract data from Alpha Analytical Lab							
Comment: U - ANALYTE INCLUDED IN ANA	LYSIS BUT NOT DETE	ECTED AT OR	ABOVE MDL				
SUBCONTRACT LAB DATA							
DIBROMOCHLOROPROPANE	U	0.001	ug/L	1	0.001	0.01	
ETHYLENE DIBROMIDE	U	0.002	ug/L	1	0.002	0.02	
Run ID: R307335 / Work Group No.: WG	238400						
Prep Date1: 02-SEP-20 Analyzed 03-Se	p-20 09:58						